CITY OF SANTEE

Department of Development Services

Park Center Townhomes Project

Class 32 CEQA Exemption Analysis

January 2025

I. PROJECT CHARACTERISTICS

1. **Project Title:**
   Park Center Townhomes Project
   Design Review (DR2022-05, TM-2024-0002)

2. **Lead Agency Name and Address:**
   City of Santee
   Department of Development Services
   10601 Magnolia Avenue
   Santee, CA 92071

3. **Contact Person and Phone Number:**
   Sandi Sawa, MPL, AICP
   Director of Planning and Building/City Planner
   (619) 258-4100 ext. 167
   10601 Magnolia Avenue
   Santee, CA 92071
   ssawa@cityofsanteeca.gov

4. **Project Location:**
   701 Park Center Drive
   Assessor's Parcel Numbers: 381-032-07-00 and 381-032-08-00

5. **Project Sponsor's Name and Address:**
   City Ventures Homebuilding, LLC
   Attn: Eric Miller
   3121 Michelson Drive, Suite 150
   Irvine, CA 92612

6. **Property Owner:**
   Santee 5 Inv, LLC
   701 Park Center Drive
   Santee, CA 92071

7. **Existing General Plan Designation:**
   TC-Town Center

8. **Existing Zoning:**
   R-14 Medium Density Residential (14–22 dwelling units per gross acre)
   Revised from R-22 High Density Residential per Appendix C of the City of Santee Housing Element 6th Cycle 2021-2029, Adopted May 11, 2022

II. EXECUTIVE SUMMARY

The Project Applicant, City Ventures Homebuilding, LLC, has submitted documents for the proposed Park Center Townhomes Project (Project) at 701 Park Center Drive for Design Review (DR2022-05, TM-2024-0002). The Project site is a vacant lot with a gross site area of 110,642 square feet (sf) or approximately 2.54 acres; the net lot area is 100,168 sf or approximately 2.30 acres. The Project site's designated land use is TC-Town Center, as it is within the Town Center Specific Plan and was rezoned on October 12, 2022, from R-22 High Density Residential (22–30 dwelling units per gross acre) to R-14 Medium Density Residential (14–22 dwelling units per acre) as part of the City of Santee (City) Housing Element Rezone Program Implementation. The Project would consist of constructing ten three-story multifamily buildings on the Project site. The Project would include surface parking and open common space. Table A summarizes the characteristics of the Project.

Table A: Project Development Summary

Description	Amount
Total Lot Area	110,642 sf (2.54 acres)
Total Building Footprint Area	34,971 sf (43% lot coverage)
Total Floor Area	85,535 sf (FAR = 0.8)
Building Height	40 ft 3 inches to top of roof
Number of Units	53 (3 bedroom/3 bathroom townhomes)
Landscaped Area	18,085 sf (17%)
Number of Parking Spaces	120 spaces

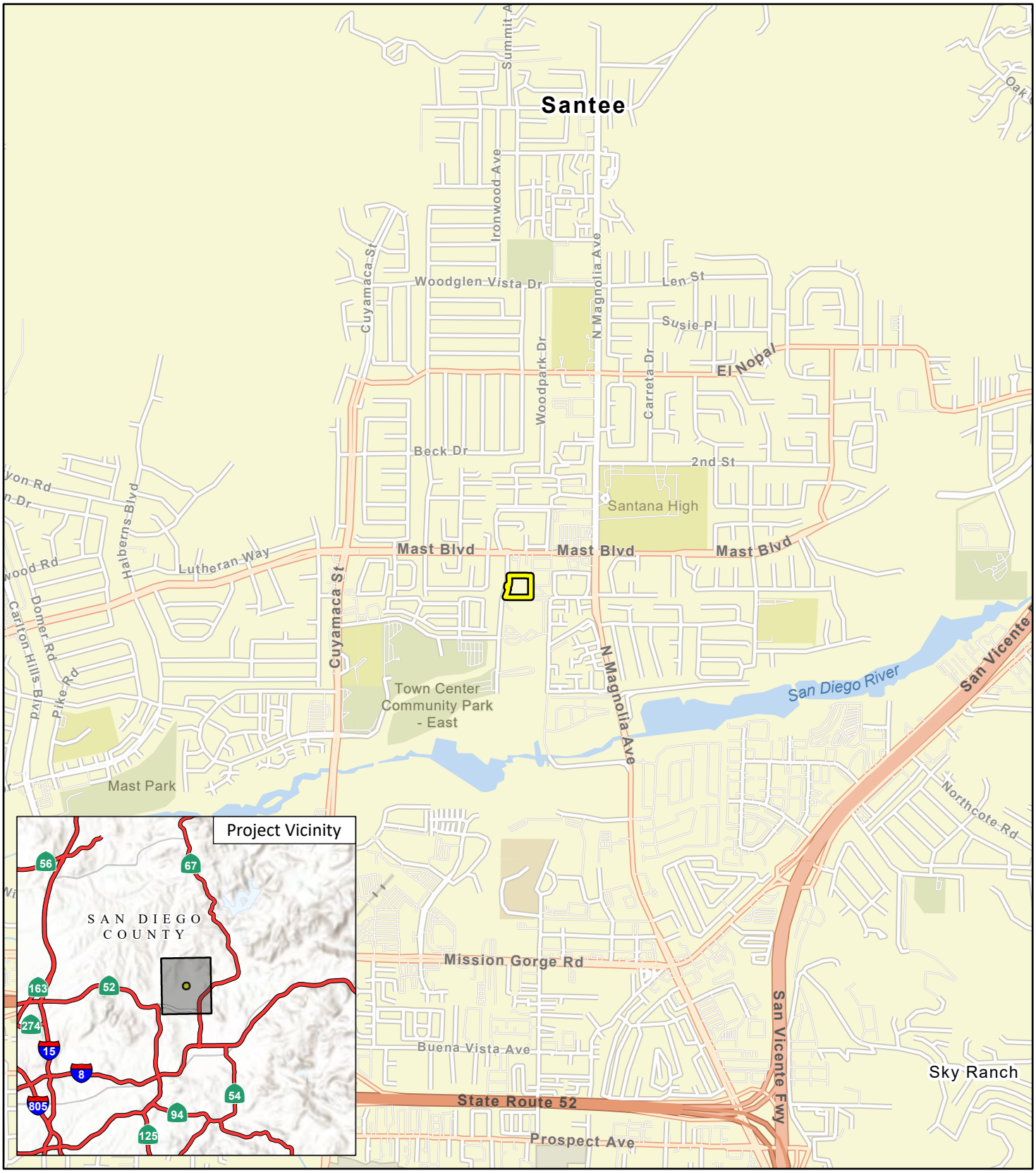
FAR = floor/area ratio
ft = feet
sf = square feet

The California Environmental Quality Act (CEQA) analysis provided herein evaluates the consistency of the Project with the exemption requirements for a Class 32 Categorical Exemption for infill development projects as set forth in *State CEQA Guidelines* Section 15332. Based on the information and conclusions set forth on the following pages, this CEQA analysis demonstrates the Project's consistency with the requirements for a Class 32 Categorical Exemption. No additional environmental documentation or analysis is required.

III. PROJECT DESCRIPTION

Project Location

As shown in **Figure 1**, the proposed Project is located at 701 Park Center Drive (Assessor's Parcel Numbers 381-032-07-00 and 381-032-08-00), immediately east of Park Center Drive and approximately 300 feet south of the intersection of Park Center Drive and Mast Boulevard in the City of Santee, San Diego County, California. Park Center Drive is a north-south oriented street extending south from Mast Boulevard, located between Cuyamaca Street



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Project Location

FIGURE 1

N

0 1000 2000

FEET

SOURCE: Esri Street Map 2024

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Park Center Townhomes Project

Project Location

and Magnolia Avenue. Regional access is provided by State Route (SR) 52, SR-67, and SR-125.

The site is served by San Diego Metropolitan Transit System (MTS) bus route 832, with the nearest bus stops on Magnolia Avenue to the north and south of the intersection with Mast Boulevard (approximately 2,060 and 1,850 feet from the Project site, respectively).

Existing Conditions and Surrounding Land Uses

The existing setting of the Project site is vacant and undeveloped but highly disturbed. Additionally, the Project site is adjacent to an auto repair facility (Phantastic Auto Repair) and a generally undeveloped lot to the north, an apartment complex (The Addison) and a single-family home to the east (10264 Palm Glen Drive), a hospital (Edgemoor Hospital) to the south, and single-family residences to the west of Park Center Drive. **Figure 2** depicts the vegetation communities and land uses present on the Project site and the surrounding land uses.

Based on a review of existing aerial photos of the Project site, the Project site has not been used or built upon since at least 1953. The first appearance of structures in the surrounding areas is in 1964, which includes approximately seven structures outside the Project site boundaries. A Biological Resources Report (see Appendix A) was prepared for the Project. The Project site was determined, as a result of previous human activity, to have heavily disturbed habitat. These habitats consist primarily of nonnative herbaceous ground cover with several relatively short and scattered eucalyptus (*Eucalyptus* sp.) trees. Wood chips associated with previous eucalyptus tree cutting activities are scattered throughout the Project site. Some remnant native coastal sage scrub species are present; however, they are not dense enough and are too isolated to be mapped as coastal sage scrub habitat. Historical aerial photos show the Project site being dominated by vegetation between the years 1980 and 2000, with vegetation depletion beginning in 2002 while the surrounding areas continue to urbanize.

General Plan and Zoning

The Project site's designated land use is TC-Town Center, as it is within the Town Center Specific Plan and is zoned as Medium High Density Residential R-14 (14 to 22 dwelling units per acre). According to the Housing Element, the Medium High Density Residential (R-14) designation is intended for residential development characterized at the lower end of the density range by multifamily attached units and at the upper end of the density range by apartment and condominium buildings. It is intended that this category utilize innovative site planning, provide on-site recreational amenities, and be located in close proximity to major community facilities, business centers, and streets of at least major capacity.

Proposed Project

The Project would consist of constructing 53 residential dwelling units in ten detached multifamily buildings on the Project site (see **Figure 3**). The buildings would be three stories with a maximum height of approximately 40 feet, 3 inches, from ground level to rooftop (zoning regulations allow heights up to 45 feet). The Project includes 53 three-bedroom townhome units

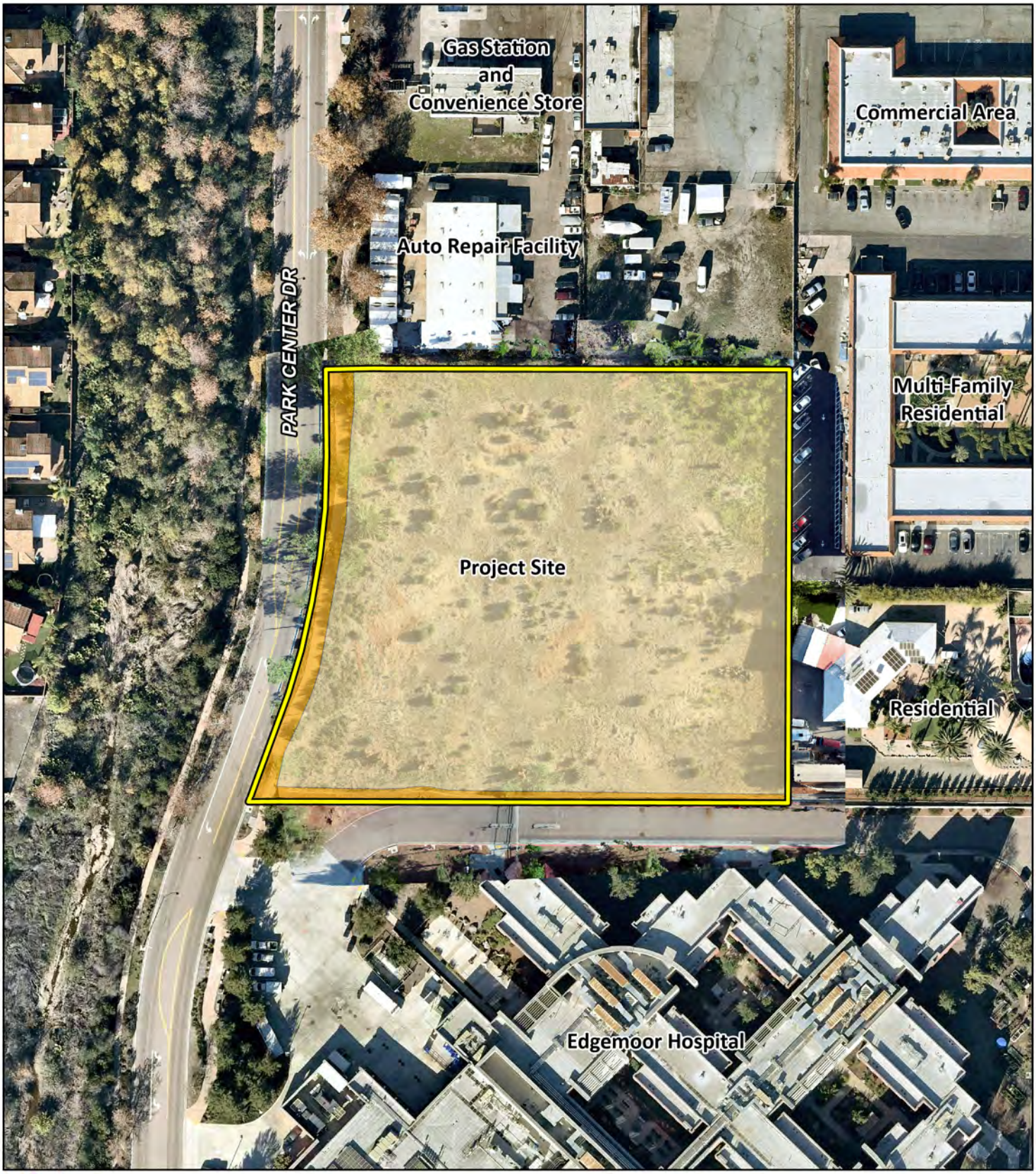

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FIGURE 2

LEGEND

Biological Study Area/Project Area

Vegetation Communities/Land Uses

Urban/Developed (0.20 ac)

Disturbed Habitat (2.43 ac)

N

0 50 100

FEET

Park Center Townhomes Project

Vegetation Communities and Land Uses

SOURCE: LSA UAV (5/7/2022); Google Imagery (2022)

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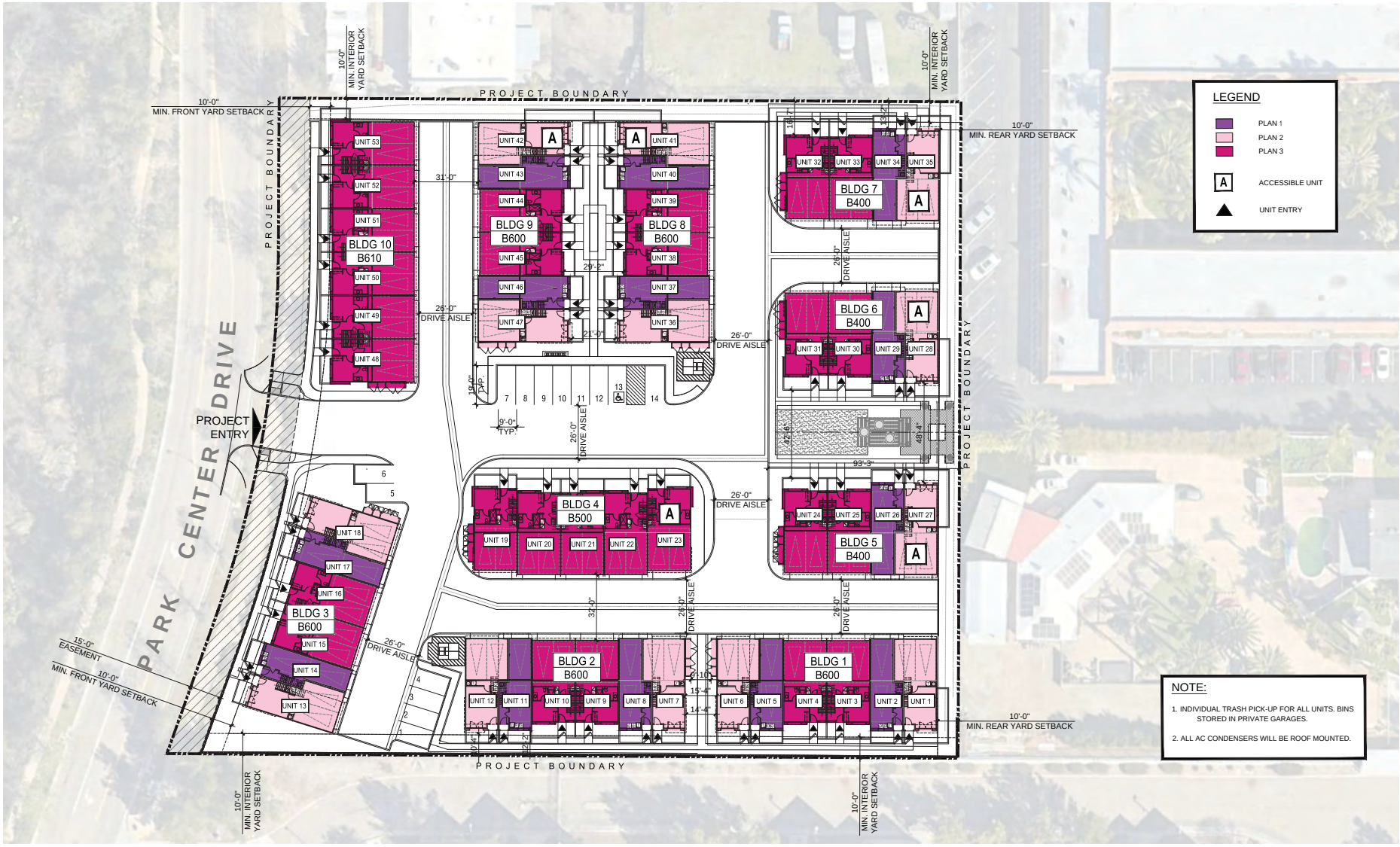

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FIGURE 3

0 40 80

FEET

SOURCE: KTGY

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Park Center Townhomes Project

Site Plan

in three floor plans, with a mix of 1,345 sf units (13 units), 1,627 sf units (13 units), and 1,737 sf units (27 units). Each unit has between 689 and 1,701 sf of private open space and two parking spaces. Six units will be Americans with Disabilities Act (ADA) accessible.

The buildings would include the following finishes:

- Painted stucco
- Concrete “S” tile roofing
- Vinyl windows
- Fiberglass entry doors
- Fabric awning
- Metal sectional garage
- Metal railings

The Project would include 120 parking spaces for cars (106 in garages and 14 open/guest spaces). Of the 120 spaces, 16 would accommodate electric vehicle charging, consistent with the City requirement that new multifamily residential developments provide e-chargers for 13 percent of parking. The Project features 18,085 sf of landscaped areas, including 8,785 sf of common open space located at grade level, of which 3,307 sf is in a consolidated area. Parking located around the Project site includes one ADA accessible guest space. The consolidated open common space includes an event lawn, a shaded structure with picnic tables and barbeque, social seating area, accent canopy trees, and screening vine planting. A driveway (approximately 26 feet wide) would be constructed to provide access from Park Center Drive on the west side of the Project site. The driveway would provide access to internal 26-foot drive aisles that provide access to the buildings; it includes a looped portion that would serve as a fire lane. Striping on Park Center Drive would be modified to provide access to the driveway entrance to the site.

All existing vegetation would be removed from the Project site and replaced in accordance with City Municipal Code Title 13, Section No. 13.36 (Landscaping) and Title 8, Section 8.06.070 (Protection of Trees). Landscaping would be provided throughout the Project site, including shade trees along the Project site perimeter. The Project would include an on-site, below-ground storm drain detention system in three locations using a modular wetland/stormwater biofiltration system in combination with a swale and bypass storm drain along the perimeter and a storm drain pump to capture and treat all on-site runoff and off-site run-on, discharging treated water in the existing public underground storm drain system located at the southeast corner of the Project site.

Project Construction

The Project would be constructed over approximately 19 months and is anticipated to start in June 2025 and end in December 2026. Construction activities would consist of site preparation, grading, building construction, paving, and architectural coating. Construction grading of the proposed Project would require approximately 6,329 cubic yards of imported soil.

Construction of the Project would include the use of tractors, graders, scrapers, bulldozers, a crane, forklifts, a man lift, welders/torches, pavers, and rollers.

Surrounding receptors near the site that were evaluated for construction and operation noise, vibration, and air quality impacts include the single-family residence at 10264 Palm Glen Drive, the Edgemoor Hospital, and other ancillary structures. These locations represent worst-case potential impacts, as other receptors are located further from the Project site. Potential impacts associated with noise, vibration, and air quality are evaluated using varying parameters. For example, construction noise is evaluated from the center of the project site to the nearest noise-sensitive receptor, while construction vibration damage is measured from the perimeter of construction to the nearest structure; operational air quality is measured from the on-site sources to the nearest off-site structures where a person would live, while operational noise is primarily the result of vehicle trips and is therefore measured from the centerline of the road to the nearest noise-sensitive receptor. Table B presents a summary of the distances relative to sensitive receptors for noise and air quality, and to structures for vibration damage used in the impact analysis.

Table B: Summary of Analysis Distances by Impact Category

Activity/Impact	Nearest Receptor or Structure	Point of Analysis	Distance (feet)
Construction Noise & Construction Vibration Annoyance	Single-family home at 10264 Palm Glen Drive	Center of project site to façade of home	200
Construction Vibration Damage	Ancillary buildings of the single-family home at 10264 Palm Glen Drive	Perimeter of construction activities to nearest structure[1]	15
Off-Site Operational Traffic Noise and Vibration	Façade of Edgemoor Hospital	Centerline of Park Center Drive to building façade	50
Construction Air Quality[2]	Single-family home at 10264 Palm Glen Drive	Perimeter of construction activities to centroid of nearest structure	30
Operational Air Quality	Single-family home at 10264 Palm Glen Drive	Emissions sources on-site generalized at the centroid of the project site to centroid of nearest structure	200

1. Distance for vibration damage potential includes the assumption that heavy construction equipment would operate approximately 10 feet from the proposed project boundary, which is 5 feet from the nearest off-site structures.
2. Distance for construction air quality impact potential includes the assumption that heavy construction equipment would operate adjacent to the proposed project boundary, which is 30 feet from the nearest off-site structures where a person would live.

Project Conditions

The following Project Conditions would be required of the proposed Project. These measures would be incorporated as Conditions of Approval for the entitlement of the Conditional Use Permit and are typical for projects built on vacant land within the City of Santee. Such measures taken to comply with building codes or to address common and typical concerns for new

projects do not preclude CEQA exemptions (*Berkeley Hillside Preservation v. City of Berkeley (2015)* 241 Cal.App.4th 943, 960-961). The following measures are standard conditions for similar development projects entitled in the past by the City of Santee:

Standard Project Condition No. 1 – Air Quality:

1. The construction contractor shall use construction equipment powered by California Air Resources Board certified Tier 4, or newer, engines and haul trucks that conform to current U.S. Environmental Protection Agency truck standards.

2. During all grading and site preparation activities, the on-site construction superintendent shall ensure implementation of standard best management practices as required by the San Diego Air Pollution Control District (SDAPCD) Rules 50, 51, 52, 54, and 55, Fugitive Dust Control.

3. During all grading and site preparation activities, the on-site construction superintendent shall ensure implementation of applicable California Department of Resources Recycling and Recovery (CalRecycle) Sustainable (Green) Building Program Measures, as specified on the CalRecycle website.

4. The project shall utilize high-efficiency equipment and fixtures consistent with the current California Green Building Standards Code and Title 24 of the California Code of Regulations.

5. The project shall include the installation of infrastructure necessary for electric vehicle parking, as well as providing preferential parking for electric vehicles. The project shall provide bike parking on-site.

6. The project shall comply with the Santee Water Efficient Landscape Ordinance. The ordinance promotes water conservation and efficiency by imposing various requirements related to evapotranspiration rates, irrigation efficiency, and plant factors.

7. The project shall comply with Chapters 9.02 and 9.04 of the Santee Municipal Code that pertain to solid waste management and demolition and construction debris recycling.

8. In conformance with the San Diego Air Pollution Control District (SDAPCD) Rule 67.0.1, Architectural Coatings, the project shall use low volatile organic compound (VOC) paints.

9. The project shall not include wood burning stoves or fireplaces.

Standard Project Condition No. 2 – Biological Resources:

1. In conformance with CEQA, the Migratory Bird Treaty Act, and the California Fish and Game Code, brushing, clearing, and/or grading shall not be allowed during the bird breeding season (between January 15 and September 15). If vegetation is to be cleared during the bird breeding season, a qualified biologist shall perform a nesting bird survey within the

proposed construction area and appropriately sized buffer no more than 72 hours prior to vegetation disturbance. If the planned vegetation disturbance does not occur within 72 hours of the nesting bird survey, then the area will be resurveyed. If nesting birds are found, then the qualified biologist will establish an adequate buffer zone (on a species-by-species, case-by-case basis) in which construction activities would be prohibited until the nest is no longer active. The size of the buffer zone is determined by the biologist based on the amount, intensity, and duration of construction and can be altered based on site conditions. If appropriate, as determined by the biologist, additional monitoring of the nesting birds may be conducted during construction to ensure that nesting activities are not disrupted.

2. All vehicles, equipment, tools, and supplies shall stay within the limits of the impact area. Any planting stock to be brought onto the project site for landscaping shall first be inspected to ensure that it is free of pest species that could invade natural areas, including, but not limited to, Argentine ants (*Linepithema humile*), non-native fire ants (e.g., *Solenopsis invicta*), and other insect pests.

3. Best management practices (BMP) features (e.g., silt fencing, straw wattles, and gravel bags) shall be installed where necessary to prevent off-site sedimentation.

Standard Project Condition No. 3 – Geology/Soils:

1. The Construction Contractor shall ensure that construction of the project complies with the recommendations identified in the project specific geotechnical investigation. Recommendations related to general construction, seismic considerations, earthwork, foundations, building floor slabs, lateral earth pressures, corrosivity, drainage, storm infiltrations, exterior concrete and masonry flatwork, and paved areas shall be adhered to during all Project design and construction.

Standard Project Condition No. 4 – Noise:

1. All construction plans shall include the following notes:

    a) Operations shall conform to the City's Municipal Code Section 5.04.090.

    b) All equipment shall be equipped with properly maintained mufflers.

    c) The construction contractor shall place noise-generating construction equipment and locate construction staging areas at the greatest possible distance from sensitive uses whenever feasible during all project construction.

    d) The construction contractor shall use on-site electrical sources to power equipment rather than diesel generators where feasible.

2. All residential units located within 500 feet of the construction site shall be sent a notice regarding the construction schedule. A sign legible at a distance of 50 feet shall also be posted at the construction site. All notices and the signs shall indicate the dates and

durations of construction activities, as well as provide a telephone number for the "noise disturbance coordinator."

3. A "noise disturbance coordinator" shall be established. The disturbance coordinator shall be responsible for responding to any local complaints about construction noise. The disturbance coordinator shall determine the cause of the noise complaint (e.g., starting too early or bad muffler) and shall be required to implement reasonable measures to reduce noise levels.

4. The following shall be incorporated into the project construction plan: "Control of Construction Hours. Construction activities occurring as part of the project shall be subject to the limitations and requirements of Section 5.04.090 of the City Municipal Code which states that construction activities may occur between 7:00 a.m. and 7:00 p.m. Mondays through Saturdays. No construction activities shall be permitted outside of these hours or on Sundays and federal holidays."

Standard Project Condition 5 – Tribal/Archaeological Monitor:

1. Prior to the start of ground-disturbing activities, the applicant shall retain a qualified archaeologist who meets the Secretary of the Interior's Professional Qualifications Standards for Archaeology (U.S. Department of the Interior, 2012) to carry out all mitigation related to cultural resources. The applicant shall also retain a Native American Monitor of Kumeyaay descent.

2. Prior to the start of ground-disturbing activities, the qualified archaeologist shall conduct cultural resources sensitivity training for all construction personnel. Construction personnel shall be informed of the types of archaeological resources that may be encountered, and of the proper procedures to be enacted in the event of an inadvertent discovery of archaeological resources or human remains. The applicant shall ensure that construction personnel attend the training and sign an attendance acknowledgment form. The applicant shall retain documentation demonstrating attendance.

3. A qualified archaeologist, or an archaeological monitor (working under the direct supervision of the qualified archaeologist), shall observe all initial ground-disturbing activities, including but not limited to brush clearance, vegetation removal, grubbing, grading, and excavation. The qualified archaeologist, in coordination with the applicant and the City, may reduce or discontinue monitoring if it is determined by the qualified archaeologist that the possibility of encountering buried archaeological deposits is low based on observations of soil stratigraphy or other factors. Archaeological monitoring shall be conducted by an archaeologist familiar with the types of archaeological resources that could be encountered within the project site. The archaeological monitor shall be empowered to halt or redirect ground-disturbing activities away from the vicinity of a discovery until the qualified archaeologist has evaluated the discovery and determined appropriate treatment (as prescribed below). The archaeological monitor shall keep daily logs detailing the types of activities and soils observed, and any discoveries. After monitoring has been completed,

the qualified archaeologist shall prepare a monitoring report that details the results of monitoring. The report shall be submitted to the City and any Native American groups who request a copy. A copy of the final report shall be filed at the South Coastal Information Center (SCIC).

4. The Native American Monitor shall be present for any pre-construction meeting and for all ground disturbing activities associated with the project. Should any cultural or tribal cultural resources be discovered, no further grading shall occur in the area of the discovery until the City Planner, or designee, with concurrence from the Native American Monitor, are satisfied that treatment of the resource has occurred. In the event that a unique archaeological resource or tribal cultural resource is discovered, and in accordance with Public Resources Code (PRC) Section 21083.2(b)(1), (2), and (4), the resource shall be moved and buried in an open space area of the Project site, such as slope areas, which will not be subject to further grading activity, erosion, flooding, or any other ground disturbance that has the potential to expose the resource. The on-site area to which the resource is moved shall be protected in perpetuity as permanent open space. No identification of the resource shall be made on-site; however, the Applicant shall plot the new location of the resource on a map showing latitudinal and longitudinal coordinates and provide that map to the Native American Heritage Commission (NAHC) for inclusion in the Sacred Lands File (SLF). Disposition of the resources shall be at the discretion of the City of Santee, but in accordance with the foregoing.

5. In the event of the unanticipated discovery of archaeological materials, all work shall immediately cease in the area (within 100 feet) of the discovery until it can be evaluated by the qualified archaeologist in consultation with the Native American Monitor. Construction shall not resume until the qualified archaeologist has conferred with the applicant and the City on the significance of the resource.

6. If it is determined that the discovered archaeological resource constitutes a historical resource or a unique archaeological resource under CEQA, avoidance and preservation in place is the preferred manner of mitigation. Preservation in place may be accomplished by, but is not limited to, avoidance, incorporating the resource into open space, capping, or deeding the site into a permanent conservation easement. In the event that preservation in place is demonstrated to be infeasible and data recovery through excavation is the only feasible mitigation available, a Cultural Resources Treatment Plan shall be prepared and implemented by the qualified archaeologist in consultation with the applicant and the City that provides for the adequate recovery of the scientifically consequential information contained in the archaeological resource. The qualified archaeologist and the City shall consult with appropriate Native American representatives in determining treatment for prehistoric or Native American resources to ensure cultural values ascribed to the resources, beyond those which are scientifically important, are considered.

7. If human remains are encountered, all work shall halt in the vicinity (within 100 feet) of the discovery and the San Diego County Coroner will be contacted in accordance with PRC Section 5097.98 and Health and Safety Code Section 7050.5. The applicant and the City

will also be notified. If the County Coroner determines that the remains are Native American, the NAHC will be notified in accordance with Health and Safety Code Section 7050.5, subdivision (c), and PRC Section 5097.98 (as amended by AB 2641). The NAHC will designate a Most Likely Descendant (MLD) for the remains per PRC Section 5097.98. The MLD shall complete the inspection of the site within 48 hours of being granted access and shall provide recommendations for the treatment of the remains. Until the landowner has conferred with the MLD, the applicant will ensure that the immediate vicinity where the discovery occurred is not disturbed by further activity, is adequately protected according to generally accepted cultural or archaeological standards or practices.

IV. CLASS 32 CATEGORICAL EXEMPTION ANALYSIS

The following analysis provides substantial evidence to support a conclusion that the Project qualifies for an exemption under *State CEQA Guidelines* Section 15332 as a Class 32 urban infill development and would not have a significant effect on the environment.

Class 32 Categorical Exemption: Class 32 consists of projects characterized as in-fill development meeting the conditions described below:

(a) The project is consistent with the applicable general plan designation and all applicable general plan policies as well as with applicable zoning designation and regulations.

(b) The proposed development occurs within city limits on a project site of no more than five acres substantially surrounded by urban uses.

(c) The project site has no value as habitat for endangered, rare, or threatened species.

(d) Approval of the project would not result in any significant effects relating to traffic, noise, air quality, or water quality.

(e) The site can be adequately served by all required utilities and public services.

Criterion Section 15332(a): General Plan and Zoning Consistency

Yes	No	
☒	☐	The project is consistent with the applicable general plan designation and all applicable general plan policies as well as with applicable zoning designation and regulations.

General Plan

The Project site's designated General Plan land use is TC-Town Center, as it is within the Town Center Specific Plan; the Project site is identified for Residential land uses. The Town Center Specific Plan Residential designation is intended to allow a wide range of residential housing types such as single-family residences, apartments, townhomes, condominiums, and senior citizen housing. The mix of housing types is aimed at supplementing the existing stock of single-family detached residences located throughout Santee. Residential areas are located north of the San Diego River and on its southeastern bank. A special emphasis has been placed on creating housing opportunities within the plan area to maximize the integration of living space with work and recreation areas The proposed townhome project is consistent with the TC-Town Center General Plan land use designation.

Zoning

The Project site was rezoned from R-22 High Density Residential (22–30 dwelling units per gross acre) to R-14 Medium Density Residential (14–22 dwelling units per acre) on October 12, 2022, as part of the City of Santee Housing Element Rezone Program Implementation in the City's 6th Cycle Housing Element. The Medium High Density Residential (R-14) zone designation is intended for residential development characterized at the lower end of the density range by multifamily attached units and at the upper end of the density range by apartment and condominium buildings. It is intended that this category utilize innovative site planning, provide on-site recreational amenities, and be located in close proximity to major community facilities, business centers, and streets of at least major capacity. At an approximate density of 21 units per acre and close to major community facilities (including the Sportsplex USA facility, the YMCA facility, and Town Center Community Park), the proposed Project is consistent with the intent of the R-14 Zone.

The proposed residential Project is consistent with the zoning regulations of the R-14 Zone. The maximum height limit for the R-14 Zone is 45 feet (four stories), and the proposed multifamily residential buildings are three stories and up to approximately 40 feet, 3 inches, high. The Project meets all other zoning standards, including setbacks and parking. The setback requirements are 10 feet for the front, side, and rear setback; the Project includes 10 feet for all setbacks with an additional 15-foot-wide easement in the front along Park Center Drive. A total of 120 car parking spaces will be provided via 106 garage spaces and 14 guest parking spaces (including 16 EV charging spaces); 120 parking spaces (16 with EV charging) are required. Landscaping will be provided within setback areas as required by the City's Zoning Ordinance.

Criterion Section 15332(b): Project Location, Size, and Context

Yes	No	
☒	☐	The proposed development occurs within city limits on a project site of no more than 5 acres substantially surrounded by urban uses

The Project site is located within the incorporated limits of the City of Santee on an approximately 2.54-acre site and is surrounded by parcels developed with urban land uses and paved public streets. Therefore, the Project is consistent with *State CEQA Guidelines* Section 15332(b).

Criterion Section 15332(c): Endangered, Rare, or Threatened Species

Yes	No	
☒	☐	The project site has no value as habitat for endangered, rare, or threatened species.

The Project site consists of undeveloped, highly disturbed lands. There are no potentially jurisdictional aquatic resources on site. The site is surrounded by commercial and residential development to the north, east, and south, with Park Center Drive on the western border of the Project site. An unnamed tributary to the San Diego River is west of and adjacent to Park Center Drive. The San Diego River is approximately 0.4 mile south of the site. Since the Project site is an infill site substantially surrounded by urban development, the Project site exhibits no connectivity to substantial open space or habitat suitable to support endangered, rare, or threatened species.

The Biological Resources Report prepared for the Project site included a literature review and field survey to determine the existence or potential occurrence of endangered, rare, or threatened plant and animal species and critical habitats on or in the vicinity of the Project site. The literature review included the California Natural Diversity Database (CNDDB), which indicated critical habitat does not occur on or near the Project site, but special-status and endangered, rare, or threatened plant and animal species have been previously reported in the Project vicinity as detailed in the Biological Resources Report. Additionally, the California Native Plant Society's (CNPS) Rare Plant Inventory was reviewed.

The Biological Resources Report determined that construction of this Project would result in permanent loss of disturbed habitat and urban/developed land. No temporary impacts are anticipated as the entire site would be developed. Direct impacts would result from permanent clearing of vegetation, grading, and construction of housing units and utility infrastructure within the development footprint. Indirect impacts to adjacent areas may result from noise and dust generated by construction-related activities, which have the potential to disturb nearby wildlife and, in the case of dust, vegetation. Additionally, if construction is performed at night, artificial night lighting has the potential to indirectly affect wildlife.

Based on the results of the literature review, the database records search, observations made during the general biological resources assessment, and due to the absence of suitable habitat and conditions, no plant or wildlife species listed as special-status, endangered, rare, or threatened were observed or were determined to have a moderate or higher potential to occur within the Project site or within a 100-foot survey buffer. Furthermore, none are expected to occur due to the Project site's previous disturbances, relatively small size, and isolation from open space with suitable habitat to support these species.

Due to the isolated nature of the Project site and the surrounding development to the east, north, and south, the Project site has no value as a wildlife corridor. The nearest area anticipated to be utilized as a wildlife corridor is the tributary to the San Diego River, located to the west of the Project site, as it provides contiguous habitat and connections to large undeveloped areas associated with the San Diego River.

Therefore, the Project is consistent with Section 15332(c) of the *State CEQA Guidelines*, as the Project site has no value as habitat for endangered, rare, or threatened species.

Criterion Section 15332(d): Traffic, Noise, Air Quality, or Water Quality

Yes	No	
☒	☐	Approval of the project would not result in any significant effects relating to traffic, noise, air quality, or water quality.

The analysis below describes the Project effects for the resource topics in this criterion, organized as follows: traffic, noise, air quality, and water quality. As demonstrated in the following discussions, the Project would not result in significant effects related to traffic, noise, air quality, or water quality and is consistent with Section 15332(d) of the *State CEQA Guidelines.*

Traffic

As the CEQA lead agency, the City of Santee determined that based on the size and scope of the Project, a CEQA Transportation Analysis Screening form was required (see Appendix B). A Project trip generation table was also developed with trip rates gathered from the San Diego Association of Governments (SANDAG) *(Not So) Brief Guide of Vehicular Traffic Generation Rates for the San Diego Region* (April 2002). As indicated in Table C, the proposed Project would generate 424 average daily trips (ADT).

Table C: Project Trip Generation

Land Use	Size	Unit	ADT	AM Peak Hour			PM Peak Hour		
				In	Out	Total	In	Out	Total
Trip Rates									
Condominium		du	8.00	0.13	0.51	0.64	0.56	0.24	0.80
Project Trip Generation									
Condominium	53	du	424	7	27	34	30	13	43

Source: Trip rates from the San Diego Association of Governments (SANDAG) *(Not So) Brief Guide of Vehicular Traffic Generation Rates for the San Diego Region* (April 2002).
Condominium (or any multi-family units with 6-20 du/acre).
ADT = average daily trips
du = dwelling unit

The Project includes 120 parking spaces and 8,785 sf of common open space located at grade level (refer to Figure 3). A 26-foot-wide driveway would be constructed off Park Center Drive on the west side of the Project site. Striping on Park Center Drive would be adjusted to accommodate safe access to the driveway. The driveway would provide access to internal 26-feet-wide drive aisles that provide access to the buildings; it includes a looped portion that would serve as a fire lane.

Development of the Project site would not conflict with any program, plan, ordinance, or policy designed to promote or enhance the City's transit facilities. To help reduce vehicle miles traveled (VMT) in the Project vicinity, public transit is provided by MTS.

The site is served by MTS bus route 832, with the nearest bus stops on Magnolia Avenue to the north and south of the intersection with Mast Boulevard (approximately 2,060 and 1,850 feet from the Project site, respectively). MTS Line 832 is a route that traverses the city in a north-south direction. This route connects to the MTS Green Line Trolley, which provides access to the broader San Diego region.

The proposed Project is considered a small project as it is less than 5 acres of land and generates fewer than 500 daily trips. Therefore, the proposed Project is screened out from a VMT analysis and is presumed to have a less than significant effect relating to traffic pursuant to Section 15332(d) of the *State CEQA Guidelines*.

Noise

Project-generated noise levels and vibration have been evaluated in the Noise and Vibration Impact Analysis (see Appendix C). The analysis was prepared by LSA pursuant to the California Code of Regulations, the City's General Plan Noise Element, the Santee Municipal Code, and the County of San Diego Noise Ordinance.

The nearest sensitive receptors in proximity to the Project site include a residence approximately 200 feet to the east and the hospital approximately 220 feet to the south. Refer to Table B for a discussion of the distances appropriate for the analysis of different types of impact. Properties adjacent to the north, including an auto repair shop and further north a gas station, are not considered noise-sensitive land uses. The Noise and Vibration Impact Analysis includes a discussion of the applicable regulatory guidelines.

Construction Noise. Two types of short-term noise impacts could occur during the construction of the proposed Project. First, construction crew commutes and the transport of construction equipment and materials to the Project site for the proposed Project would incrementally increase noise levels on access roads leading to the Project site. Although there would be a relatively high single-event noise-exposure potential causing intermittent noise nuisance (passing trucks at 50 feet would generate up to 84 A-weighted decibel [dBA] maximum instantaneous noise level [L_{max}]), the effect on longer-term ambient noise levels would be small when compared to existing daily traffic volumes. Because construction-related vehicle trips would not substantially increase existing daily traffic volumes, traffic noise would not increase by 3 dBA community noise equivalent level (CNEL). A noise level increase of less than 3 dBA

would not be perceptible to the human ear in an outdoor environment. Therefore, short-term, construction-related impacts associated with worker commute and equipment transport to the Project site would be less than significant.

The second type of short-term noise impact is related to noise generated during construction, which includes site preparation, grading, building construction, paving, and architectural coating on the Project site. Construction is completed in discrete steps, each of which has its own mix of equipment and, consequently, its own noise characteristics.

While construction noise will vary, it is expected that composite noise levels during construction at the nearest off-site sensitive residential use to the east would reach an average noise level of up to 74 dBA equivalent continuous sound level (L_{eq}) during daytime hours. These predicted noise levels would only occur when all construction equipment is operating simultaneously and, therefore, are assumed to be conservative in nature. While construction-related short-term noise levels have the potential to be higher than existing ambient noise levels in the Project area under existing conditions, the noise impacts would no longer occur once Project construction is completed.

Furthermore, construction activities are regulated by the City's noise ordinance. The proposed Project would comply with the construction hours specified in the City's Noise Ordinance, which states that construction activities are allowed between the hours of 7:00 a.m. through 7:00 p.m., Monday through Saturday, except holidays. In addition, the City's Standard Project Condition No. 4 – Noise, as previously described, would be applicable to the proposed Project.

Short-Term Construction Vibration Impacts. This construction vibration impact analysis discusses the level of human annoyance using vibration levels in vibration velocity decibels (VdB) and assesses the potential for building damages using vibration levels in peak particle velocity (PPV) inches per second (in/sec). Federal Transit Administration (FTA) guidelines show that a vibration level of up to 0.5 in/sec in PPV is considered safe for buildings consisting of reinforced concrete, steel, or timber (no plaster), and would not result in any construction vibration damage. For non-engineered timber and masonry buildings, the construction building vibration damage criterion is 0.2 in/sec in PPV. The threshold at which vibration levels would result in human annoyance would be 78 VdB for daytime residential uses and 90 VdB for workshop type uses.

Vibration levels are expected to approach 60 VdB at the closest residential uses located to the east of the Project site and 62 VdB at the closest repair shop located immediately to the north of the Project site, which is below the 78 VdB and 90 VdB threshold for annoyance for residential and workshop uses, respectively. Vibration levels are expected to approach 0.191 in/sec at the nearest surrounding structures, approximately 15 feet from construction operations (see Table B), and would be below the 0.2 PPV in/sec damage threshold. Therefore, no significant vibration impacts would occur.

Long-Term Off-Site Traffic Noise Impacts. Based on the traffic screening form prepared by LSA (see Appendix B), it was determined that a net additional 424 ADT would be generated by

the proposed Project. This increase in ADT would result in a noise level increase less than 1 dBA CNEL along Park Center Drive. A noise level increase of less than 1 dBA would not be perceptible to the human ear; therefore, the traffic noise increase along Park Center Drive resulting from the Project would be less than significant. The project site is zoned for residential uses and no stationary noise sources are proposed on the site that would result in long-term operational impacts beyond what is typical for residential land use. Residents will be required to abide by applicable City noise regulations (Municipal Code Section 5.04.040). All air conditioning systems will be required to comply with City Municipal Code Section 5.04.040 (B)(4).

Air Quality

The following analysis is based on the project-specific Air Quality and Greenhouse Gas Emissions Impact Analysis prepared for the Project (see Appendix D). The Project site is in the San Diego Air Basin (Basin). Air quality in the Basin is under the guidelines of the San Diego Air Pollution Control District (SDAPCD).

Construction of the proposed Project is anticipated to begin in June 2025 and last for approximately 19 months. During construction, 6,329 cubic yards of soil would need to be imported.

Both State and federal governments have established health-based ambient air quality standards (AAQS) for six criteria air pollutants: carbon monoxide (CO), ozone (O_3), nitrogen dioxide (NO_2), sulfur dioxide (SO_2), lead (Pb), and suspended particulate matter (PM). In addition, the State has set standards for sulfates, hydrogen sulfide, vinyl chloride, and visibility-reducing particles. These standards are designed to protect the health and welfare of the populace with a reasonable margin of safety. Long-term exposure to elevated levels of criteria pollutants may result in adverse health effects. However, emission thresholds established by an air quality district are used to manage total regional emissions within an air basin based on the air basin's attainment status for criteria pollutants.

Consistency with Applicable Air Quality Plan. The SDAPCD is responsible for developing and implementing the clean air plans for attainment and maintenance of the AAQS in the SDAPCD, specifically, the State Implementation Plan (SIP) and the Regional Air Quality Strategy (RAQS). The SIP and RAQS rely on information from the California Air Resources Board (CARB) and SANDAG, including mobile and area source emissions, as well as information regarding projected growth in the County as a whole and the cities in the County, to project future emissions and determine the strategies necessary for the reduction of emissions through regulatory controls. Projects that propose development that is consistent with the growth anticipated by the General Plans would be consistent with the RAQS.

Implementation of the proposed Project would result in an increase in 53 residential units and is designated as TC-Town Center in the City's General Plan, and zoned R-14 Medium Density Residential (14–22 dwelling units per acre). R-14 zoning is intended to provide for compatible high-density multiple family residential development including apartments, condominiums, and

senior housing. The proposed Project is consistent with the General Plan and zoning designations. Because the proposed Project activities and associated vehicle trips are anticipated in local air quality plans, the proposed Project would be consistent at a regional level with the underlying growth forecasts in the RAQS and SIP.

Construction Emissions. During construction, short-term degradation of air quality may occur due to the release of particulate matter (PM) emissions (e.g., fugitive dust) generated by excavating, grading, hauling, and paving activities. Emissions from construction equipment are also anticipated and would include CO, nitrogen oxides (NO_X), volatile organic compounds (VOCs), directly emitted $PM_{2.5}$ (particulates less than 2.5 microns in size) and PM_{10} (particulates less than 10 microns in size), and toxic air contaminants (TACs), such as diesel particulate matter (DPM).

Construction-related effects on air quality from the proposed Project would be greatest during grading, due to construction activity on unpaved surfaces. Water or other soil stabilizers can be used to control dust at least twice daily, resulting in emissions reductions of 50 percent or more. The SDAPCD has established Rule 55, Fugitive Dust Control, which would require the Applicant to implement measures that would reduce the amount of PM generated during the construction period. In addition to dust related PM_{10} emissions, heavy trucks and construction equipment powered by gasoline and diesel engines would generate CO, SO_2, NO_X, VOCs and some soot particulate ($PM_{2.5}$ and PM_{10}) in exhaust emissions.

Construction emissions were estimated for the Project using CalEEMod and are summarized in Table D. As shown in Table D, construction emissions associated with the Project would not exceed the SDAPCD thresholds for VOCs, NO_X, CO, SO_X, $PM_{2.5}$, and PM_{10}. Therefore, construction of the proposed Project would not result in a cumulatively considerable increase of any criteria pollutant for which the Project region is in nonattainment under an applicable federal or State AAQS.

Table D: Project Construction Emissions (in Pounds Per Day)

Project Construction	Maximum Pollutant Emissions (lbs/day)					
	VOC	**NO_X**	**CO**	**SO_X**	**PM_{10}**	**$PM_{2.5}$**
Maximum (lbs/day)	12.9	17.7	16.3	<0.1	4.2	2.2
SDAPCD Thresholds	75	250	550	250	100	55
Exceeds Thresholds?	**No**	**No**	**No**	**No**	**No**	**No**

Source: Compiled by LSA (June 2024).
CO = carbon monoxide
lbs/day = pounds per day
NO_X = nitrogen oxides
$PM_{2.5}$ = particulate matter less than 2.5 microns in size
PM_{10} = particulate matter less than 10 microns in size
SDAPCD = San Diego Air Pollution Control District
SO_X = sulfur oxides
VOC = volatile organic compounds

Operational Emissions. Long-term air pollutant emissions impacts are those associated with mobile sources (e.g., vehicle trips), energy sources (e.g., electricity and natural gas), and area

sources (e.g., architectural coatings and the use of landscape maintenance equipment) related to the proposed Project.

PM_{10} emissions result from running exhaust, tire and brake wear, and the entrainment of dust into the atmosphere from vehicles traveling on paved roadways. Energy source emissions result from activities in buildings for which electricity and natural gas are used. The primary sources of energy demand for the proposed Project would include building mechanical systems, such as heating and air conditioning, lighting, and plug-in electronics (e.g., refrigerators or computers). The Project would incorporate sustainable design features and comply with 2022 Title 24 standards, which were accounted for in the analysis.

Long-term operation emissions associated with the proposed Project were calculated using CalEEMod.[1] Model results are shown in Table E below. As shown in Table E, the proposed Project would not exceed the SDAPCD significance criteria for daily VOCs, NO_X, CO, sulfur oxides (SO_X), PM_{10}, or $PM_{2.5}$ emissions. Therefore, operation of the proposed Project would not

Table E: Project Operational Emissions (in Pounds Per Day)

Source	Pollutant Emissions					
	VOC	**NO_X**	**CO**	**SO_X**	**PM_{10}**	**$PM_{2.5}$**
Total Project Emissions	3.9	2.1	14.1	<0.1	2.4	0.7
SDAPCD Thresholds	75	250	550	250	100	55
Exceeds Thresholds?	**No**	**No**	**No**	**No**	**No**	**No**

Source: Compiled by LSA (June 2024).
CO = carbon monoxide
lbs/day = pounds per day
NO_X = nitrogen oxides
$PM_{2.5}$ = particulate matter less than 2.5 microns in size
PM_{10} = particulate matter less than 10 microns in size
SDAPCD = San Diego Air Pollution Control District
SO_X = sulfur oxides
VOC = volatile organic compounds

result in a cumulatively considerable net increase of any criteria pollutant for which the Project region is in nonattainment under an applicable federal or State AAQS.

Long-Term Microscale (CO Hot Spot) Analysis. Vehicular trips associated with the proposed Project would contribute to congestion at intersections and along roadway segments in the Project vicinity. The primary mobile-source pollutant of local concern is CO, a direct function of vehicle idling time and, thus, of traffic flow conditions. Typically, high CO concentrations are associated with roadways or intersections operating at unacceptable levels of service or with

[1] Trip generation was calculated using San Diego Association of Governments (SANDAG) trip generation rates, which resulted in an estimated increase of 424 average daily trips (ADT). An initial estimate of 432 ADT was provided based on 54 units, rather than 53; this was used to assess air quality impacts. The use of the estimate of 432 ADT in the air quality analysis does not result in a material difference in the results and represents a worst-case scenario.

extremely high traffic volumes. In areas with high ambient background CO concentrations, modeling is recommended to determine a project's effect on local CO levels.

Given the extremely low level of CO concentrations in the Project area, and minor traffic impact increases at affected intersections, project-related vehicles are not expected to contribute significantly or to result in the CO concentrations exceeding the State or federal CO standards. Because no CO hot spots would occur, there would be no project-related impacts on CO concentrations.

Water Quality

The following analysis relies on the Priority Development Project (PDP) Storm Water Quality Management Plan (SWQMP)[2] and the Preliminary Drainage Study[3] prepared for the proposed Project.

Construction Water Quality Impacts. Construction activities would involve disturbance, grading, and excavation of soil, which could result in temporary erosion and movement of sediments into the storm drain system, particularly during precipitation events. Projects that disturb greater than 1 acre of soil are subject to the requirements of the State Water Resources Control Board (SWRCB) Waste Discharge Requirements for Discharges of Storm Water Runoff Associated with Construction and Land Disturbance Activities (Order No. 2009-0009-DWQ, National Pollutant Discharge Elimination System [NPDES] No. CAS000002, as amended by Order Nos. 2010-0014-DWQ, 2012-0006-DWQ, and 2022-0057-DWQ) (Construction General Permit). Because the proposed Project would disturb more than 1 acre, the Applicant would be required to obtain coverage under the Construction General Permit, which requires the preparation and implementation of a Stormwater Pollution Prevention Plan (SWPPP) and BMPs, including, but not be limited to, Erosion Control and Sediment Control BMPs designed to minimize erosion and retain sediment on site and Good Housekeeping BMPs to prevent spills, leaks, and discharge of construction debris and waste into receiving waters. The City of Santee Municipal Code, Title 9, Chapter 9.06, Stormwater Management and Discharge Control, also requires projects to implement stormwater pollution control requirements during construction activities. Compliance with the standard requirements of the Construction General Permit and the City Municipal Code would ensure that construction impacts related to surface water quality would be less than significant.

According to the Geotechnical Investigation[4] prepared for the proposed Project, the depth to groundwater at the Project site is anticipated to be between 8.6 and 14 feet below ground surface (bgs). Depending on the depth of excavation for utilities, there is a possibility that groundwater could be reached. The Geotechnical Investigation recommends consideration of using gravel or crushed rock for backfill of utilities located below the level of groundwater. With

[2] Fuscoe Engineering. 2024. *Priority Development Project Storm Water Quality Management Plan for Paseo, Santee*. June 21.

[3] Fuscoe Engineering. 2024. *Preliminary Drainage Study, Paseo*. June 21.

[4] Alta California Geotechnical2024. *Geotechnical Investigation Park Center Drive, City of Santee, County of San Diego, California*. May 24.

implementation of recommended measures and stormwater related requirements outlined in the City's Municipal Code, construction-related impacts to groundwater quality would be less than significant.

Operational Water Quality Impacts. Pollutants of concern during operation of the proposed Project may include suspended solids/sediments, nutrients, pesticides, heavy metals, oil and grease, toxic organic compounds, and trash and debris.

Under existing conditions, storm water generally sheet flows from north to south and drains onto an existing concrete ditch along the southern boundary of the Project site. Storm water is then diverted onto an inlet before entering the underground 18-inch storm drainpipe. The proposed Project would maintain the existing drainage pattern at the Project site. Under proposed conditions, on-site runoff would flow north to south and drain into an underground detention facility and modular wetland system, at the southern end of the Project site before connecting/discharging to existing drainage infrastructure along the southern boundary of the Project site.

The existing Project site, which is 110,775 sf (2.54 acres), is currently vacant with no impervious surface areas. The proposed Project would disturb 109,186 sf (2.51 acres) with the construction of townhomes and associated parking and driveways, which would result in the addition of a total of 89,404 sf (2.05 acres) of impervious surface area.[5] An increase in impervious surface area would increase the volume of runoff during a storm, which would potentially increase the amount of pollutants discharged into downstream receiving waters. The proposed Project is subject to the requirements of the San Diego Regional Water Quality Control Board's (RWQCB) NPDES Waste Discharge Requirements for Discharges from the Municipal Separate Storm Sewer Systems (MS4) Draining the Watersheds Within the San Diego Region (Order No R9-2013-0001, NPDES No. CAS010266, as amended by Order No. WQ 2015-0100) (San Diego MS4 Permit).

A PDP SWQMP[6] has been prepared for the proposed Project in compliance with San Diego MS4 Permit, the City of Santee BMP Design Manual, and the City's Municipal Code. The Project-specific SWQMP specifies the Source Control, Site Design, LID BMPs, and treatment BMPs (underground storage tanks and modular wetland system) proposed for the Project. As described above, all runoff (including off-site run-on) would drain into the underground detention facilities and treatment BMPs (modular wetland system), before connecting/draining to existing drainage infrastructure at the southeast corner of the Project site. As specified in the Project-specific SWQMP, underground detention tanks and treatment BMPs would be sized appropriately to treat and detain peak flows without increasing peak flows to downstream drainage infrastructure. Areas within the setback around the perimeter of the site are designed to be self-mitigating and will capture runoff from the adjacent parcel on the north side to be

[5] Fuscoe Engineering. 2024. *BMP Plan*. June 21.

[6] California Department of Transportation (Caltrans). *California State Scenic Highway System Map.* Website: https://www.arcgis.com/apps/webappviewer/index.html?id=465dfd3d807c46cc8e8057116f1aacaa (accessed July 2024).

conveyed into a bypass storm drain system that is separate from the impervious area drainage. Implementation of the PDP SWQMP and stormwater related requirements outlined in the City's Municipal Code would ensure Project impacts to water quality would be less than significant.

Project operation would not require groundwater extraction. Water usage for the proposed Project would primarily be associated with irrigation for landscaping, domestic uses, and fire suppression systems.

In the existing condition, the Project site is undeveloped and contains no impervious surface area. Under post-project conditions, approximately 81 percent (2.05 acres) of the proposed Project would be impervious surface area (an increase of 2.05 acres). An increase in impervious surface area decreases infiltration, which can decrease the amount of water that is able to recharge the aquifer/groundwater. However, under existing conditions, a majority of the Project site (93 percent) is composed of Soil Group C, which has a slow infiltration rate. Therefore, the Project site is not a significant source of groundwater recharge under existing conditions. Therefore, development of the proposed Project would not significantly decrease groundwater supplies or interfere with groundwater recharge.

According to the Federal Emergency Management Agency (FEMA) Flood Insurance Rate Map (FIRM) No. 06073C1651G (May 16, 2012), the Project site is not located within a 100-year floodplain. Specifically, the Project site is located within Zone X, an area of minimal flood hazard (outside the 500-year floodplain). According to the Department of Conservation Tsunami Hazard Area Maps, the Project site is not located within a Hazard Area. Therefore, there is no risk of tsunami or seiche on the Project site. No project-related impacts associated with flood flows or release of pollutants from inundation would occur.

Proper engineering design and construction in conformance with the requirements of the City, the Construction General Permit, the San Diego MS4 permit, and project-specific recommendations outlined in an SWPPP and Final SWQMP would ensure that construction and operation of the proposed Project would not result in any significant effects relating to water quality pursuant to Section 15332(d) of the *State CEQA Guidelines*. Overall, the proposed Project would not result in impacts associated with hydrology and water quality.

Criterion Section 15332(e): Utilities and Public Services

Yes	No	
☒	☐	The site can be adequately served by all required utilities and public services.

The proposed Project includes connections to utilities such as sewer, water, electrical, gas, and telecommunications within the Park Center Drive right-of-way. Overhead electrical facilities along the Project site frontage would be relocated underground where feasible.

All on-site utilities would be designed in accordance with applicable codes and current engineering practices. There would be no significant environmental effects specifically related to the installation of utility connections that are not encompassed within the Project's construction and operational footprints, and therefore already identified, disclosed, and subject

to all applicable local, State, and federal regulations specified above. Therefore, the Project site can be adequately served by all required utilities pursuant to Section 15332(e) of the *State CEQA Guidelines*.

The Santee Fire Department and San Diego County Sheriff's Department provide fire and police protection services to the Project site. The proposed townhomes will be located in an area that is within the 4-minute response time for the Santee Fire Department and within the service area for the Sheriff's Department. The City maintains public facilities including parks and libraries. The Santee School District (SSD) serves the Project site and provides educational services for K through 8th grade. The Grossmont Union High School District provides educational services for 9th through 12th grade. While the Project would incrementally increase demand for public services, it would not in and of itself necessitate the construction of new or expanded facilities.

Funding for new public services facilities commensurate with the increased demand for services in the City would be provided from development impact fees levied on the Project and other new developments in accordance with Government Code 65995(h) and Education Code 17620. These fees are one-time charges applied to new development and are imposed to raise revenue for the construction or expansion of capital facilities located outside of project boundaries of a new development that benefit the area. Development impact fees enable the City to collect fair-share fees from new development projects to fund new infrastructure and services. Development impact fees are collected for specific infrastructure needs and are deposited into different accounts representing these requirements. Per California Government Code, "The payment or satisfaction of a fee, charge, or other requirement levied or imposed … are hereby deemed to be full and complete mitigation of the impacts … on the provision of adequate school facilities." The Project is within an area where public services are readily available and will contribute fair share payment to offset the incremental demand increase; as such, the Project site is considered to be adequately served by existing public services providers.

V. EXCEPTIONS TO CATEGORICAL EXEMPTIONS

Under the Class 32 Categorical Exemption Overview, even if a project is ordinarily exempt under any of the potential categorical exemptions, *State CEQA Guidelines* Section 15300.2 provides specific instances where exceptions to otherwise applicable exemptions apply. The following section addresses whether any of the exceptions to the CEQA exemption apply to the Project, consistent with *State CEQA Guidelines* Section 15300.2.

Criterion 15300.2(a): Location

Yes	No	
☐	☒	Is there an exception to the exemption for the project due to its location in a particularly sensitive environment, such that the project may impact an environmental resource of hazardous or critical concern where designated, precisely mapped, and officially adopted pursuant to law by federal, state, or local agencies?

This exception applies only to CEQA exemptions under Classes 3, 4, 5, 6, or 11. Since the Project qualifies as a Class 32 urban infill exemption, this criterion is not applicable and is provided here for information purposes only. There are no environmental resources of hazardous or critical concern that are designated, precisely mapped, or officially adopted in the vicinity of the Project site, or that could be adversely affected by the Project. Therefore, exception under *State CEQA Guidelines* Section 15300.2(a) does not apply to the Project.

Criterion 15300.2(b): Cumulative Impact

Yes	No	
☐	☒	Is there an exception to the exemption for the project due to significant cumulative impacts of successive projects of the same type and in the same place, over time?

As demonstrated under Criterion Section 15332(a), General Plan and Zoning Consistency, the Project is consistent with the development density allowed under the General Plan and zoning for the Project site. Successive projects of the same type (residential uses) and in the same place are unlikely to occur over time after the proposed townhomes are constructed. Therefore, the exception under *State CEQA Guidelines* Section 15300.2(b) does not apply to the Project.

Criterion 15300.2(c): Significant Effect

Yes	No	
☐	☒	Is there an exception to the exemption for the project because there is a reasonable possibility that the project will have a significant effect on the environment due to unusual circumstances?

There are no known unusual circumstances applicable to the Project or its site that may result in a significant effect on the environment. Therefore, an exception to the exemption under *State CEQA Guidelines* Section 15300.2(c) does not apply to the Project.

Criterion 15300.2(d): Scenic Highway

Yes	No	
☐	☒	Is there an exception to the exemption for the project because project may result in damage to scenic resources including but not limited to, trees, historic buildings, rock outcroppings or similar resources, within a highway officially designated as a state scenic highway?

The California Department of Transportation (Caltrans) Scenic Highway Program does not identify any State-designated scenic highways near the Project site.[7] The nearest officially designated State scenic highway is a portion of SR-52, which begins where the freeway extends north past Mast Boulevard into Mission Trails Regional Park, approximately 3 miles west of the Project site. The portion of SR-52 from approximately Mast Boulevard to SR-67 is eligible, but

[7] California Department of Transportation (Caltrans). *California State Scenic Highway System Map.* Website: https://www.arcgis.com/apps/webappviewer/index.html?id=465dfd3d807c46cc8e8057116f1aacaa (accessed July 2024).

not designated as a State scenic highway. The Project site is approximately 1.4 miles north of the eligible portion of SR-52.

The proposed Project would not degrade views or damage scenic resources including trees, rock outcroppings, or historic buildings within a highway officially designated as a State scenic highway. Therefore, an exception to the exemption under *State CEQA Guidelines* Section 15300.2(d) does not apply to the Project.

Criterion 15300.2(e): Hazardous Waste Sites

Yes	No	
☐	☒	Is there an exception to the exemption for the project because the project is located on a site which is included on any list compiled pursuant to Section 65962.5 of the Government Code?

Hazardous materials sites compiled pursuant to Government Code Section 65962.5 are listed on the "Cortese List" (named after the Legislator who authored the legislation that enacted it), which is maintained by the California Department of Toxic Substances Control (DTSC). The Project site is not on any list of hazardous material sites compiled pursuant to Government Code Section 65962.5[8] and therefore is not subject to the Hazardous Waste Sites Exception (Section 15300.2(e)).

Criterion 15300.2(f): Historical Resources

Yes	No	
☐	☒	Is there an exception to the exemption for the project because the project may cause a substantial adverse change in the significance of a historical resource?

Based on existing aerial photos of the Project site, the Project site has not been used or built upon since at least 1953.[9] The first appearance of structures in the surrounding areas is in 1964, which includes approximately seven structures outside the Project site boundaries. The Project site was determined, as result of previous human activity, to have heavily disturbed habitat. The Project site has never been developed based on the historic map and aerial photos and the potential for historical period archeological resources is considered low. Therefore, an exception to the exemption under *State CEQA Guidelines* Section 15300.2(f) does not apply to the Project.

[8] California Department of Toxic Substances Control (DTSC). Hazardous Waste and Substances Site List (Cortese). 2024. Website: https://www.envirostor.dtsc.ca.gov/public/search (accessed July 1, 2024).

[9] NETROnline. Interactive Map Viewer, Historical Aerials. Website: https://www.historicaerials.com/viewer (accessed July 11, 2022).

APPENDIX A

BIOLOGICAL RESOURCES REPORT

BIOLOGICAL RESOURCES REPORT

PARK CENTER TOWNHOMES PROJECT

CITY OF SANTEE

SAN DIEGO COUNTY, CALIFORNIA

LSA

June 2024

BIOLOGICAL RESOURCES REPORT

PARK CENTER TOWNHOMES PROJECT

CITY OF SANTEE

SAN DIEGO COUNTY, CALIFORNIA

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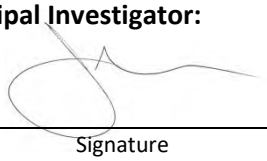
Principal Investigator: 	**Jaime Morales, B.S.**	**June 25, 2024**
Signature	Name	Date

June 2024

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1.0 INTRODUCTION

1.1 PREVIOUS ANALYSIS

LSA previously performed a general biological resources assessment at the project site in April 2022, under contract with a different project proponent. That project included the construction of 8 multifamily buildings, including 54 apartment units, and 114 on-grade parking spaces. LSA prepared a biological resources report in May 2022. Since the performance of that assessment, City Ventures Homebuilding, LLC purchased the property and plans to develop the site (see revised project description below). Under contract to City Ventures Homebuilding, LLC, LSA performed an updated biological resources assessment in June 2024. This report documents the methods and results of that assessment.

1.2 PROJECT DESCRIPTION

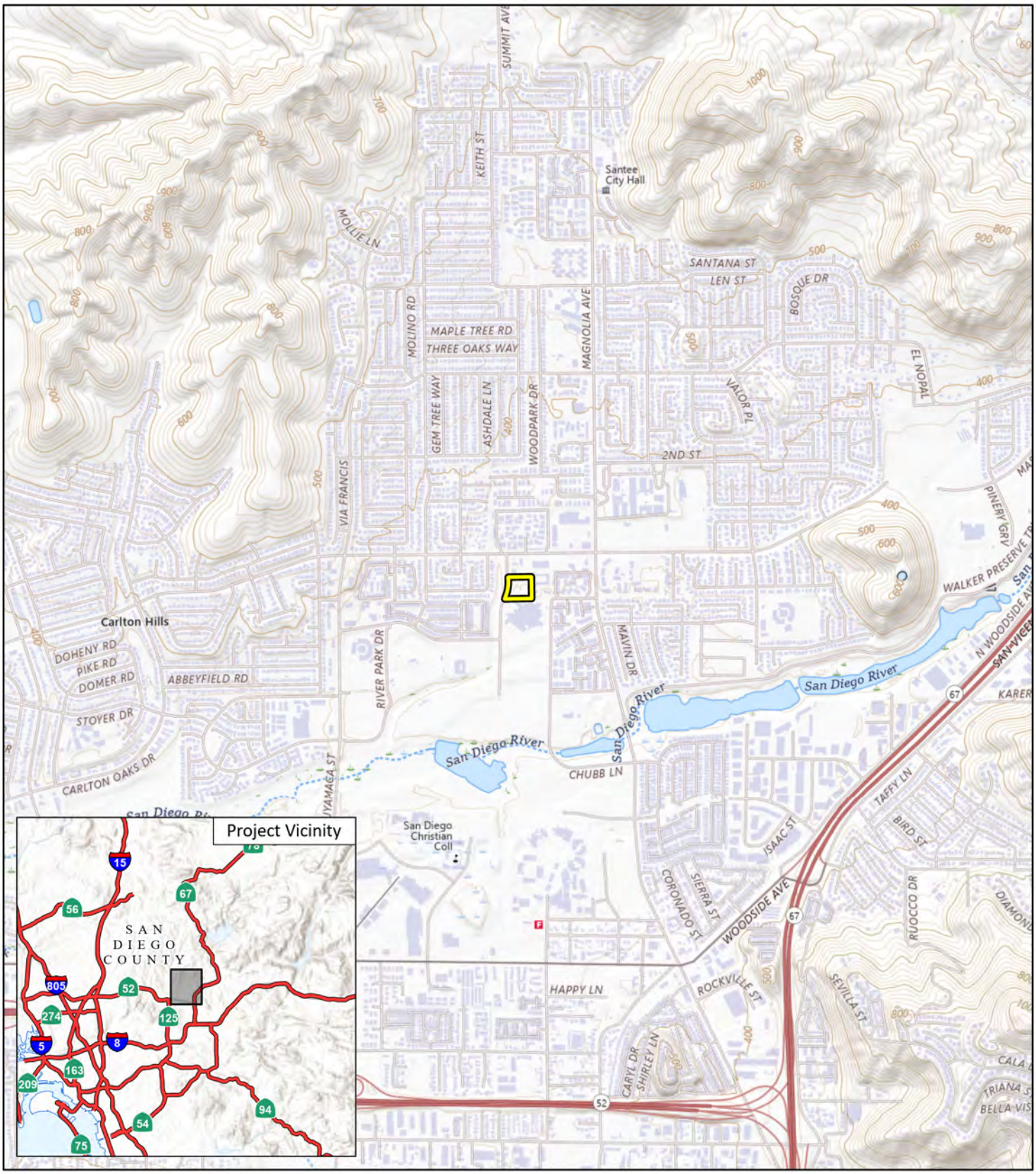
City Ventures Homebuilding, LLC proposes to construct 10 three-story walk up multifamily townhome buildings that will include 53 for-sale dwelling units and 119 on-grade parking spaces on a vacant/undeveloped property (Assessor's Parcel Numbers 381-032-07 and 381-032-08). Initial grading of the site will result in permanent removal of all vegetation in the proposed impact area. Construction of building foundations; road improvements; and water, storm water, and sewer infrastructure will follow. Finally, the dwelling units will be constructed and the landscaping will be planted.

1.3 BIOLOGICAL STUDY AREA

The 2.66-acre Biological Study Area (BSA) consists of an undeveloped, highly disturbed area east of and adjacent to Park Center Drive in Santee, San Diego County, California. Specifically, the BSA is in Section 22, Township 15 South, and Range 1 West of the United States Geological Survey *El Cajon, California* 7.5-minute topographic quadrangle map (Figure 1). The BSA is surrounded by commercial development to the north, east, and south (Edgemoor Hospital). Park Center Drive is to the west. An unnamed tributary to the San Diego River is west of and adjacent to Park Center Drive.

Appendix A contains site photographs of the BSA.

The BSA is within the South Coast subregion of the Southwestern California region of the California Floristic Province, and the Los Coches Creek-San Diego River Watershed.



LSA

FIGURE 1

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Park Center Townhomes Project

Project Location

SOURCE: USGS The National Map (2019)

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1.4 REGULATORY SETTING

1.4.1 United States Fish and Wildlife Service

The Federal Endangered Species Act (FESA) sets forth a two-tiered classification scheme based on the biological health of a species. Endangered species are those in danger of becoming extinct throughout all or a significant portion of their range. Threatened species are those likely to become endangered in the near future; Special Rules under Section 4(d) can be made to address threatened species. Ultimately, the FESA attempts to bring populations of listed species to healthy levels so that they no longer need special protection.

Section 9 of the FESA prohibits the "take" of listed species by anyone unless authorized by the United States Fish and Wildlife Service (USFWS). "Take" is defined as "conduct which attempts or results in the killing, harming, or harassing of a listed species." "Harm" is defined as "significant habitat modification or degradation where it actually kills or injures wildlife by significantly impairing essential behavior patterns, including breeding, feeding, or sheltering." "Harass" is defined as an "intentional or negligent act or omission which creates the likelihood of injury to wildlife by annoying it to such an extent as to significantly disrupt normal behavioral patterns, including breeding, feeding, or sheltering." Therefore, in order to comply with the FESA, any proposed project should be assessed prior to construction to determine whether the project will impact listed species or, in the case of a federal action on the project, designated critical habitats. If no federal action is associated with the proposed project, and the project will result in take of listed species, authorization from the USFWS in the form of a Section 10(a) take permit and an accompanying Habitat Conservation Plan is required. If a federal action exists and the project may impact listed species or designated critical habitat, then pursuant to Section 7 of the FESA, consultation with the USFWS is required. That consultation can result in an incidental take authorization through a Biological Opinion.

1.4.2 California Department of Fish and Wildlife

The California Endangered Species Act (CESA) State Fish and Game Code (§§2050–2098) was signed into law in 1984. Intended to parallel the federal law, the CESA prohibits the unauthorized "take" of species listed as threatened or endangered under its provisions. However, a significant difference exists in the CESA definition of "take," which is limited to actually or attempting to "hunt, pursue, capture, or kill." CESA provisions for authorization of incidental take include consultation with a State agency, board, or commission that is also a State Lead Agency pursuant to the California Environmental Quality Act; authorization of other entities through a 2081 permit; or adoption of a federal incidental take authorization pursuant to §2081.1. Similar to the federal act, actions in compliance with the measures specified in the consultation process or 2081 permit are not prohibited.

1.4.3 Nesting Birds

The Migratory Bird Treaty Act of 1918 regulations and portions of the California Fish and Game Code prohibit the "take" of nearly all native bird species and their nests. While these laws and regulations originally were intended to control the intentional take of birds and/or their eggs and nests by collectors, falconers, etc., they can be applied to unintentional take (e.g., destroying an active nest

by cutting down a tree). It is sometimes possible to obtain a permit for relocating or removing a nest.

1.4.4 Draft Santee Multiple Species Conservation Program Subarea Plan

The City of Santee (City) is in the process of completing the Santee Multiple Species Conservation Program (MSCP) Subarea Plan (City of Santee 2018). The City has been preparing its Subarea Plan since the original approval of the City of San Diego MSCP Subarea Plan. Although the Draft Santee MSCP Subarea Plan has not yet been approved or permitted, it is used by the City on projects occurring in the city. The Draft Santee MSCP Subarea Plan seeks coverage for 22 species (8 plants and 14 wildlife species) and relies on a combination of hardline preserve areas and softline criteria-based protection zones to protect species and habitat. Coverage for species is dependent on a number of factors, including adequate building of the preserve system, adequate protection of certain populations, and other factors.

2.0 METHODS AND SURVEY LIMITATIONS

2.1 LITERATURE AND DATABASE REVIEW

Prior to the general biological resources assessment, LSA Associate/Senior Biologist Jaime Morales conducted a literature review and database record search to identify the previously recorded existence or potential occurrence of special-status biological resources (e.g., plants, animals, and vegetation communities) within a 1.5-mile radius of the BSA. Special-status species are those that are federally and/or State-listed, proposed for listing, or candidate species; species listed as species of concern by the California Department of Fish and Wildlife (CDFW) Special Animals List (CDFW 2024a) and the Special Plants List (CDFW 2024b); and/or those species with a California Rare Plant Ranking of 1B or 2B.

LSA reviewed the following databases:

- California Natural Diversity Database information (Commercial version dated April 2, 2024; CDFW 2024c), which is administered by the CDFW. This database covers special-status plant and animal species, as well as special-status natural communities that occur within California.

- The California Native Plant Society's (CNPS) On-Line Inventory of Rare and Endangered Plants of California (online edition, v9.5, 2024, CNPS Inventory; CNPS 2024).

2.2 GENERAL BIOLOGICAL RESOURCES ASSESSMENT

Mr. Morales conducted a general biological resources assessment on June 13, 2024. He walked the entire BSA. The survey included the following elements:

- Mapping of vegetation communities/land uses;

- A directed search for special-status plant species with potential to occur within the BSA;

- A general inventory of plant and wildlife species;

- An evaluation of suitability of habitat for special-status resources identified during the literature search; and

- Notes on other pertinent features or conditions of the site and adjacent lands.

All plant species observed within the BSA were recorded; a list of the species observed is included as Appendix B. Mr. Morales used a field map including a 2024 aerial photograph base at a scale of 1 inch = 45 feet to map the vegetation communities/land uses within the BSA. The mapped vegetation communities/land uses were then digitized using geographic information system software. Mr. Morales determined vegetation community categories in accordance with the categories described in Oberbauer et al. (2008). Plant nomenclature follows that of *The Jepson Manual: Higher Plants of California* (Baldwin et al. 2012). Special-status plant species with a potential to occur within the BSA are discussed below in Section 3.5.1.

All wildlife observed and wildlife sign detected, including tracks, scat, carcasses, burrows, excavations, and vocalizations, were recorded during the survey; a list of the species detected is included as Appendix C. Notes were made on the general habitat types, species observed, and the conditions of the site. Special-status wildlife species with a potential to occur within the BSA are discussed in Section 3.5.2.

3.0 SURVEY RESULTS AND DISCUSSION

3.1 PHYSICAL SETTING

The approximately 2.66-acre BSA consists of undeveloped, highly disturbed lands. There are no potentially jurisdictional aquatic resources on site. The BSA is surrounded by commercial development to the north, east, and south (Edgemoor Hospital). Park Center Drive is to the west. An unnamed tributary to the San Diego River is west of and adjacent to Park Center Drive. The San Diego River is approximately 0.38 mile south of the BSA. Photographs of the BSA are included as Appendix A.

3.2 TOPOGRAPHY

Topography within the BSA is relatively flat. Elevation at the BSA ranges from 356 to 362 feet above mean sea level.

3.3 SOILS

The *Soil Survey of the San Diego Area, California, Part I* (USDA Soil Conservation Service 1973) *El Cajon, California* quadrangle identifies the soil expected to correspond to the BSA as Salinas clay, 0 to 2 percent slopes (ScA) and Placentia sandy loam, thick surface, 2 to 9 percent slopes (PfC).

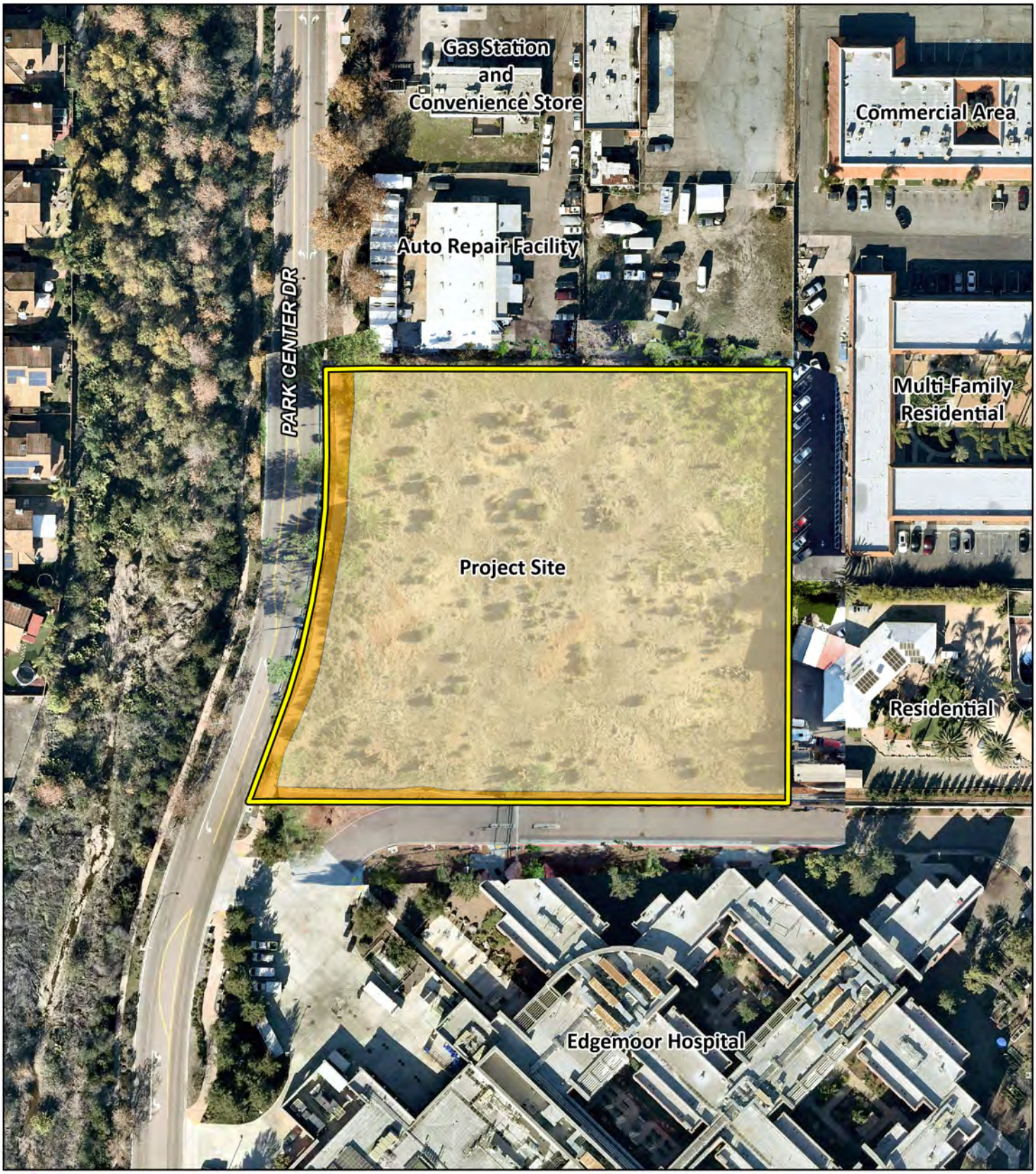
3.4 VEGETATION COMMUNITIES/LAND USES

The BSA supports the following vegetation communities/land uses totaling approximately 2.66 acres: disturbed habitat and urban/developed. Figure 2 displays the vegetation communities/land uses within the BSA on an aerial photograph, while Table A presents the total acreages of the vegetation communities/land uses identified within the BSA. The vegetation communities/land uses observed during the survey are described below.

Table A: Vegetation Communities/Land Uses Within the Biological Study Area

Vegetation Community/Land Use	Acreage within the BSA[1]
Disturbed Habitat	2.43
Urban/Developed	0.23
Total Acres	**2.66**

Source: Compiled by LSA (2024).
[1] Total may not equal sum due to rounding.
BSA = Biological Study Area



LSA

FIGURE 2

LEGEND

Biological Study Area/Project Area

Vegetation Communities/Land Uses

Urban/Developed (0.20 ac)

Disturbed Habitat (2.43 ac)

N

0 50 100

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Park Center Townhomes Project

Vegetation Communities and Land Uses

SOURCE: LSA UAV (5/7/2022); Google Imagery (2022)

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3.4.1 Disturbed Habitat

Disturbed habitat refers to areas that have been physically disturbed by previous human activity and are no longer recognizable as a native or naturalized vegetation association but continue to retain a soil substrate. Disturbed habitat within the BSA consists primarily of nonnative herbaceous ground cover with several scattered eucalyptus (*Eucalyptus* sp.) trees that are between 20 and 30 feet tall. The eucalyptus trees had been cut down to stumps prior to the previous assessment in 2022, and they have since grown considerably; however, because the trees are relatively short and because they are loosely scattered about the site and do not form a dense stand with a closed canopy, the area was not mapped as eucalyptus woodland. Wood chips associated with previous eucalyptus tree cutting activities are scattered throughout the BSA. Some remnant native coastal sage scrub species are present; however, they are not dense enough and are too isolated to be mapped as coastal sage scrub habitat.

Dominant species observed within this designation include eucalyptus, tocalote (*Centaurea melitensis*), prickly lettuce (*Lactuca serriola*), nettle-leaved goosefoot (*Chenopodium murale*), London rocket (*Sisymbrium irio*), hare barley (*Hordeum murinum*), red brome (*Bromus madritensis* ssp. *rubens*), yellow sweetclover (*Melilotus indicus*), horehound (*Marrubium vulgare*), California cudweed (*Pseudognaphalium californicum*), coyote brush (*Baccharis pilularis*), and horseweed (*Erigeron canadensis*).

3.4.2 Urban/Developed

This designation applies to areas that have been constructed upon or otherwise physically altered to an extent that native vegetation is no longer supported. Developed land is characterized by permanent or semi-permanent structures, pavement or hardscape, and landscaped areas that often require irrigation. Within the BSA, areas mapped as urban/developed include a concrete sidewalk and v-ditch and ornamental landscaping between the sidewalk and Park Center Drive.

3.5 SPECIAL-STATUS SPECIES

Table B lists the criteria for evaluating special-status plant and wildlife species potential for occurrence.

Table B: Criteria for Evaluating Special-Status Plant and Wildlife Species Potential for Occurrence

PFO	Criteria
Not Expected	Species is restricted to habitats or environmental conditions that do not occur within the BSA.
Low	Historical records for this species do not exist within the BSA, and/or habitats or environmental conditions needed to support the species are of poor quality.
Moderate	Either a historical record exists of the species within the BSA and marginal habitat exists within the proposed work areas, or the habitat requirements or environmental conditions associated with the species occur within the proposed work areas, but no historical records exist within the BSA.
High	Both a historical record exists of the species and the habitat requirements and environmental conditions associated with the species occur within the BSA.
Present	Species was detected within or near the BSA during project surveys.

Source: Compiled by LSA (2024).
BSA = Biological Study Area
PFO = potential for occurrence

All special-status plant and wildlife species identified with the potential to occur within a 1.5-mile radius of the BSA are discussed in Appendix D.

3.5.1 Special-Status Plants

Based on the results of the literature review, the database record search, and observations made during the general biological resources assessment, due to the absence of suitable habitat and conditions, no special-status plant species were determined to have a moderate or higher potential to occur within the BSA.

3.5.2 Special-Status Wildlife

Based on the results of the literature review, the database record search, and observations made during the general biological resources assessment, due to the absence of suitable habitat and conditions, no special-status animal species were determined to have a moderate or higher potential to occur within the BSA.

3.6 UNITED STATES FISH AND WILDLIFE SERVICE CRITICAL HABITAT AREAS

USFWS-designated critical habitat for coastal California gnatcatcher (*Polioptila californica californica*) is approximately 0.53 mile northwest of the BSA. Proposed USFWS-designated critical habitat for Hermes copper butterfly (*Lycaena hermes*) is approximately 0.63 mile northwest of the BSA. USFWS-designated critical habitat for least Bell's vireo (*Vireo bellii pusillus*) is approximately 1.44 miles southwest of the BSA.

3.7 WILDLIFE CORRIDORS

Due to the isolated nature of the BSA and the surrounding development to the east, north, and south, the BSA has no value as a wildlife corridor. Furthermore, wildlife are more likely to use the tributary to the San Diego River, west of the BSA, as a wildlife corridor due to its contiguous nature and uninterrupted connections to large undeveloped areas associated with the San Diego River.

4.0 PROJECT IMPACT ANALYSIS

4.1 PROJECT-SPECIFIC IMPACTS

Construction of this project would result in permanent loss of disturbed habitat and urban/developed land. No temporary loss is anticipated.

4.1.1 Direct Impacts

Direct impacts will result from permanent clearing of vegetation, grading, and construction of housing units and water, storm water, and sewer infrastructure within the development footprint.

4.1.2 Indirect Impacts

Indirect impacts to adjacent areas may result from noise and dust generated by construction-related activities, which have the potential to disturb nearby wildlife and, in the case of dust, vegetation. Additionally, if construction is performed at night, artificial night lighting has the potential to indirectly affect wildlife.

4.1.3 Cumulative Impacts

The cumulative study area includes lands within the Draft Santee MSCP Subarea Plan, which contains the BSA, as well as portions of lands within the Metro-Lakeside-Jamul segment of the South County MSCP Subarea Plan. Figure 3 shows the project boundary in relation to the surrounding lands and waterbodies within the San Diego River Watershed. The purpose of these habitat conservation programs is to take a broad-based ecosystem approach to planning for the protection and perpetuation of biological diversity, which is the most appropriate way to assess and address the potential cumulative impacts stemming from multiple projects in the same geographic area. These programs focus on the long-term stability of wildlife and plant communities and include key interests in the process. These programs identify and provide for the regional protection of plants, animals, and their habitats while allowing compatible and appropriate economic activity. Potential impacts to sensitive habitats and associated species have been addressed in a regional context through these programs.

Pending and future projects will also be required to comply with the regional habitat conservation programs, which will address project-specific impacts and appropriate mitigation to offset cumulative impacts to a less than significant level.

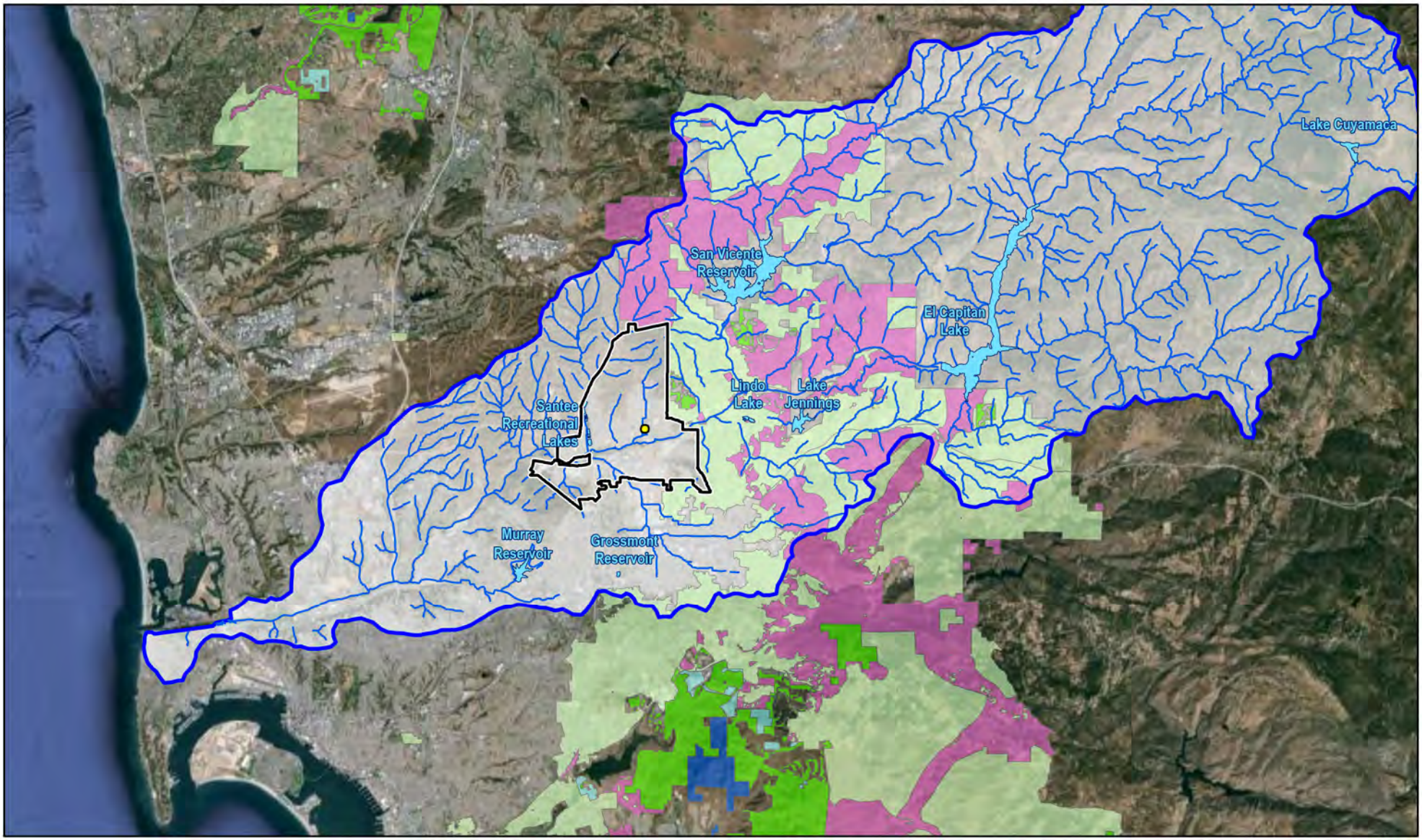

FIGURE 3

LEGEND

Project Location

Waters
- Rivers and Streams
- NHDWaterbody selection
- San Diego Watershed

San Diego County MSCP
- Hardline Preserve
- Major Amendment Area
- Minor Amendment Area
- Pre-Approved Mitigation Area
- Unincorporated Land in Metro-Lakeside-Jamul Segment

0 2.25 4.5
MILES

SOURCE: Google Imagery (2022); SanGIS (2022); CalWater (2021); National Hydrography Dataset (NHD);

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Park Center Townhomes Project

Regional Context

4.2 VEGETATION COMMUNITIES

Table C outlines the impacts that are expected to occur to each vegetation community/land use as a result of project-related activities. Figure 4 displays the impacts to vegetation communities/land uses within the BSA on an aerial photograph.

Table C: Anticipated Impacts by Vegetation Community/ Land Use Type (acres)

Vegetation Community/Land Use	Temporary	Permanent	Total
Disturbed Habitat	0.00	2.39	2.39
Urban/Developed	0.00	0.10	0.10
TOTAL	**0.00**	**2.48**	**2.48**

Source: Compiled by LSA (2024).

4.3 SPECIAL-STATUS PLANT SPECIES

Due to the absence of suitable habitat and conditions, no special-status plant species are expected to occur within the BSA. Therefore, construction of the project is not expected to result in impacts to special-status plant species.

4.4 SPECIAL-STATUS WILDLIFE SPECIES

Due to the absence of suitable habitat and conditions, no special-status wildlife species are expected to occur within the BSA. Therefore, construction of the project is not expected to result in impacts to special-status wildlife species.

4.5 USFWS CRITICAL HABITAT AREAS

No designated critical habitat will be affected by proposed project activities.

4.6 WILDLIFE MOVEMENT CORRIDORS

Due to the isolated nature of the BSA and the surrounding development to the east, north, and south, the BSA has no value as a wildlife corridor. Although most of the BSA will be permanently affected by construction, wildlife will have the ability to move within the vegetated area west of Park Center Drive (tributary that connects to the San Diego River).

LSA

FIGURE 4

LEGEND

Biological Study Area/Project Area

Permanent Impact Area

Site Plan

Vegetation Communities/Land Uses

Urban/Developed

Disturbed Habitat

N

0 50 100

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Park Center Townhomes Project

Impacts to Vegetation Communities/Land Uses

SOURCE: LSA UAV (5/7/2022); Google Imagery (2022)

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5.0 MITIGATION AND AVOIDANCE, AND MINIMIZATION OF IMPACTS TO BIOLOGICAL RESOURCES

5.1 VEGETATION COMMUNITIES/LAND USES

Table D displays the appropriate mitigation ratios (as described in the Draft Santee Subarea Plan) and anticipated mitigation totals for impacts to vegetation communities/land uses.

Table D: Mitigation for Permanent Impacts to Vegetation Communities

Vegetation Community/Land Use	Mitigation Ratio	Impact Area (acres)	Mitigation Requirement (acres)
Disturbed Habitat	NA	2.42	NA
Urban/Developed	NA	0.10	NA
TOTAL		**2.52**	**NA**

Source: Compiled by LSA (2024).
NA = not applicable

All impacts will occur to nonsensitive vegetation communities/land uses that do not require mitigation, per the Draft Santee Subarea Plan.

5.2 NESTING BIRDS

In order to avoid or minimize impacts to nesting birds, LSA recommends the following avoidance and minimization measure during project implementation:

- If vegetation disturbance is scheduled to occur during the bird breeding season (between January 15 and September 15), a biologist should perform a nesting bird survey within the proposed construction area and appropriately sized buffer no more than 72 hours prior to vegetation disturbance. If the planned vegetation disturbance does not occur within 72 hours of the nesting bird survey, then the area will be resurveyed. If nesting birds are found, then the qualified biologist will establish an adequate buffer zone (on a species-by-species, case-by-case basis) in which construction activities would be prohibited until the nest is no longer active. The size of the buffer zone is determined by the biologist based on the amount, intensity, and duration of construction and can be altered based on site conditions. If appropriate, as determined by the biologist, additional monitoring of the nesting birds may be conducted during construction to ensure that nesting activities are not disrupted.

6.0 REFERENCES

Baldwin, B.G., D. Goldman, D.J. Keil, R. Patterson, T.J. Rosatti, and D. Wilken, eds. 2012. *The Jepson Manual: Vascular Plants of California, 2nd Edition*. Berkeley: University of California Press.

California Department of Fish and Wildlife (CDFW). 2024a. California Natural Diversity Database (CNDDB), April 2024. Special Animals List. California Department of Fish and Wildlife. Sacramento, California.

California Department of Fish and Wildlife (CDFW). 2024b. California Natural Diversity Database (CNDDB), April 2024. Special Vascular Plants, Bryophytes, and Lichens List. California Department of Fish and Wildlife. Sacramento, California.

California Department of Fish and Wildlife (CDFW). 2024c. California Natural Diversity Database (CNDDB) – Commercial version dated April 2, 2024. Website: https://apps.wildlife.ca.gov/cnddb-subscriptions/downloads (accessed June 12, 2024).

California Native Plant Society, Rare Plant Program. 2024. Rare Plant Inventory (online edition, v9.5). Website: http://www.rareplants.cnps.org (accessed June 12, 2024).

City of Santee. 2018. Draft Santee Subarea Plan. December 2018.

Oberbauer, Thomas, Meghan Kelly, and Jeremy Buegge. 2008. Draft Vegetation Communities of San Diego County. March 2008. Based on "Preliminary Descriptions of the Terrestrial Natural Communities of California," Robert F. Holland, Ph.D., October 1986.

United States Department of Agriculture (USDA). Soil Conservation Service. 1973. *Soil Survey of the San Diego Area, California, Part I*. Washington, D.C.

APPENDIX A

SITE PHOTOGRAPHS

1) View of the northwestern corner of the BSA, facing northeast.

2) View of the southwestern corner of the BSA, facing north.

3) View of the BSA from the southeastern corner, facing northwest.

4) View of the BSA from the northeastern corner, facing west.

LSA

Park Center Townhomes Project
Site Photographs

APPENDIX B

VASCULAR PLANT SPECIES OBSERVED

VASCULAR PLANT SPECIES OBSERVED

The following vascular plant species were observed by LSA in the Biological Study Area during the general biological resources assessment.

Scientific Name	Common Name
Adoxaceae	**Muskroot family**
Sambucus nigra ssp. *caerulea*	Blue elderberry
Agavaceae	**Agave family**
*Agave americana**	American century plant
Anacardiaceae	**Sumac family**
Rhus integrifolia	Lemonade berry
Arecaceae	**Palm family**
*Phoenix canariensis**	Canary Island date palm
*Washingtonia robusta**	Mexican fan palm
Asteraceae	**Sunflower family**
Baccharis pilularis	Coyote brush
Baccharis sarothroides	Broom baccharis
*Centaurea melitensis**	Tocalote
*Centaurea solstitialis**	Yellow star-thistle
Erigeron canadensis	Canadian horseweed
*Helminthotheca echioides**	Bristly ox-tongue
Isocoma menziesii	Goldenbush
*Lactuca serriola**	Prickly lettuce
Pseudognaphalium californicum	California cudweed
*Sonchus asper**	Prickly sow thistle
Boraginaceae	**Borage family**
Amsinckia intermedia	Common fiddleneck
Brassicaceae	**Mustard family**
*Hirschfeldia incana**	Shortpod mustard
*Raphanus sativus**	Wild radish
*Sisymbrium irio**	London rocket
Chenopodiaceae	**Saltbush family**
*Chenopodium murale**	Nettleleaf goosefoot
Fabaceae	**Pea family**
*Melilotus indicus**	Annual yellow sweetclover
Geraniaceae	**Geranium family**
*Erodium botrys**	Longbeak stork's bill
*Erodium cicutarium**	Redstem stork's bill
Lamiaceae	**Mint family**
*Marrubium vulgare**	Horehound
Myrsinaceae	**Myrsine family**
*Anagallis arvensis**	Scarlet pimpernel
Myrtaceae	**Myrtle family**
Eucalyptus sp.*	Eucalyptus
Poaceae	**Grass family**
*Arundo donax**	Giant reed
Bromus madritensis ssp. *rubens**	Red brome
*Hordeum murinum**	Hare barley
*Marrubium vulgare**	Horehound

Scientific Name	Common Name
Platanaceae	**Sycamore family**
Platanus racemosa	Western sycamore
Urticaceae	**Nettle family**
*Urtica urens**	Dwarf nettle

* Nonnative species

APPENDIX C

WILDLIFE SPECIES OBSERVED

WILDLIFE SPECIES OBSERVED

This is a list of the conspicuous aerial insects, reptiles, birds, and mammals noted in or adjacent to the Biological Study Area by LSA during the general biological resources assessment. Presence may be noted if a species is seen or heard, or identified by the presence of tracks, scat, or other signs.

Scientific Name	Common Name
AVES	**BIRDS**
Accipitridae	**Kites, Hawks, and Eagles**
Buteo jamaicensis	Red-tailed hawk
Columbidae	**Pigeons and Doves**
Zenaida macroura	Mourning dove
Corvidae	**Crows and Ravens**
Corvus brachyrhynchos	American crow
Timaliidae	**Babblers**
Chamaea fasciata	Wrentit
Mimidae	**Mockingbirds and Thrashers**
Mimus polyglottos	Northern mockingbird
Fringillidae	**Finches**
Carpodacus mexicanus	House finch
RODENTIA	**RODENTS**
Sciuridae	**Squirrels**
Spermophilus beecheyi	California ground squirrel

APPENDIX D

SPECIAL-STATUS SPECIES TABLE

Special-Status Species Table

Species	Status	Habitat and Distribution	Activity Period	Occurrence Probability
Plants				
Ambrosia pumila **San Diego ambrosia**	US: FE CA: SP CRPR: 1B.1	Occurs in open habitats, usually near drainages or vernal pools, usually in sandy loam or on clay (including upland clay slopes) from 70 to 1,600 feet elevation. Known from western Riverside and western San Diego Counties. Also occurs in Mexico.	Generally nonflowering (perennial herb)	**Not Expected.** Suitable habitat for this species is not present within the BSA. The nearest known record of occurrence is 0.25 mile south of the BSA near the San Diego River. This perennial herb was not observed during the general biological resources assessment.
Bloomeria clevelandii **San Diego goldenstar**	US: – CA: SP CRPR: 1B.1	Chaparral, coastal sage scrub, valley and foothill grassland, and vernal pools; 200 to 1,500 feet elevation. Only known from San Diego County and Baja California.	May (perennial herb)	**Not Expected.** Suitable habitat for this species is not present within the BSA. The nearest known record of occurrence has been extirpated. This perennial herb was not observed during the general biological resources assessment.
Centromadia pungens ssp. *laevis* **Smooth tarplant**	US: – CA: SP CRPR: 1B.1	Alkaline areas in chenopod scrub, meadows, playas, riparian woodland, and valley and foothill grassland below 1,600 feet elevation. Known from Riverside and San Bernardino Counties, extirpated from San Diego County.	Blooms April through November (annual herb)	**Not Expected.** Suitable habitat for this species is not present within the BSA. The nearest known record of occurrence is 0.55 mile south of the BSA near the San Diego River. This annual herb was not observed during the general biological resources assessment, which was performed during this species' flowering period.
Dudleya variegata **Variegated dudleya**	US: – CA: SP CRPR: 1B.2	In rocky or clay soils within chaparral, coastal scrub, cismontane woodland, valley and foothill grassland, and margins of vernal pools; known from western San Diego County and Baja California; 10 to 1,900 feet elevation.	May through June (perennial herb)	**Not Expected.** Suitable habitat for this species is not present within the BSA. The nearest known record of occurrence is 1.2 miles northwest of the BSA. This perennial herb was not observed during the general biological resources assessment.
Ferocactus viridescens **San Diego barrel cactus**	US: – CA: SP CRPR: 2B.1	Often on exposed, level or south-facing slopes within chaparral, coastal scrub, and grasslands; known from southwestern San Diego County and Baja California; 10 to 1,500 feet elevation.	May through June (stem succulent)	**Not Expected.** Suitable habitat for this species is not present within the BSA. The nearest known record of occurrence is 1 mile east of the BSA. This succulent was not observed during the general biological resources assessment.
Pseudognaphalium leucocephalum **White rabbit-tobacco**	US: – CA: SP CRPR: 2B.2	Sand and gravel at the edges of washes or mouths of steep canyons at 0 to 7,000 feet elevation. In California, known from Los Angeles, Orange, Riverside, Santa Barbara, San Diego, San Luis Obispo, and Ventura Counties. Also occurs in Arizona, New Mexico, Texas, and Mexico.	Usually August through November (perennial herb)	**Not Expected.** Suitable habitat for this species is not present within the BSA. The nearest known record of occurrence is 0.45 mile south of the BSA near the San Diego River. This annual herb was not observed during the general biological resources assessment.

Special-Status Species Table

Species	Status	Habitat and Distribution	Activity Period	Occurrence Probability
Quercus dumosa **Nuttall's scrub oak**	US: – CA: SP CRPR: 1B.1	On sandy and clay loam soils near the coast within closed-cone coniferous forest, chaparral, and coastal scrub from 50 to 1,300 feet elevation. In California, known only from western Orange, Santa Barbara, and San Diego Counties. Also known from Baja California.	Year-round (evergreen shrub)	**Not Expected.** Suitable habitat for this species is not present within the BSA. The nearest known record of occurrence is 0.45 mile south of the BSA near the San Diego River. This perennial shrub was not observed during the general biological resources assessment.
Invertebrates				
Bombus crotchii **Crotch's bumble bee**	US: – CA: SA	Inhabits grassland and scrub areas, requiring a hotter and drier environment than other bumblebee species. Nests underground, often in abandoned rodent dens.	April to September	**Not Expected.** Suitable habitat for this species is not present within the BSA. The nearest known record of occurrence is 1.15 miles northwest of the BSA. This species was not detected during the general biological resources assessment.
Eugnosta busckana **Busck's gallmoth**	US: – CA: SA	Coastal dunes and coastal scrub. A food plant for this species is *Cuscuta californica*. Requires host plant *Encelia californica* for breeding.	November to February	**Not Expected.** Suitable habitat for this species is not present within the BSA (host plant not present). The nearest known record of occurrence is 0.85 mile west of the BSA. This species was not detected during the general biological resources assessment.
Amphibians				
Spea hammondii **Western spadefoot**	US: – CA: SSC	Grasslands and occasionally hardwood woodlands; largely terrestrial but requires rain pools or other ponded water persisting at least 3 weeks for breeding; burrows in loose soils during dry season. Occurs in the Central Valley and adjacent foothills, the nondesert areas of Southern California, and Baja California.	October through April (following onset of winter rains)	**Not Expected.** Suitable habitat for this species is not present within the BSA. The nearest known record of occurrence is 0.66 mile northwest of the BSA. This species was not detected during the general biological resources assessment.
Reptiles				
Anniella stebbinsi **Southern California legless lizard**	US: – CA: SSC	Inhabits coastal sand dunes, sandy washes, and alluvial fans.	Nearly year-round	**Not Expected.** Suitable habitat for this species is not present within the BSA. The nearest known record of occurrence is 1.36 miles southwest of the BSA along the San Diego River. This species was not detected during the general biological resources assessment.

Special-Status Species Table

Species	Status	Habitat and Distribution	Activity Period	Occurrence Probability
Aspidoscelis hyperythra **Orangethroat whiptail**	US: – CA: SSC	Prefers washes and other sandy areas with patches of brush and rocks, in chaparral, coastal sage scrub, juniper woodland, and oak woodland from sea level to 3,000 feet elevation. Perennial plants required. Occurs in Riverside, Orange, and San Diego Counties west of the crest of the Peninsular Ranges, in extreme southern San Bernardino County near Colton, and in Baja California.	March through July with reduced activity August through October	**Not Expected.** Suitable habitat for this species is not present within the BSA. The nearest known record of occurrence is 1 mile east of the BSA near the San Diego River. This species was not detected during the general biological resources assessment.
Arizona elegans occidentalis **California glossy snake**	US: – CA: SSC	Scrub and grassland habitats, often with loose or sandy soils. Patchily distributed from the eastern portion of San Francisco Bay to southern San Joaquin Valley and in nondesert areas of Southern California. Also occurs in Baja California, Mexico.	Most active March through June (nocturnal)	**Not Expected.** Suitable habitat for this species is not present within the BSA. There is a known record of occurrence near the BSA, but it is from 1937. More likely to occur closer to the San Diego River. This species was not detected during the general biological resources assessment.
Crotalus ruber **Red diamond rattlesnake**	US: – CA: SSC	Desert scrub, thornscrub, open chaparral and woodland; occasional in grassland and cultivated areas. Prefers rocky areas and dense vegetation. Morongo Valley in San Bernardino and Riverside Counties to the west and south into Mexico.	Mid-spring through mid-fall	**Not Expected.** Suitable habitat for this species is not present within the BSA. The nearest known record of occurrence is 0.5 mile northwest of the BSA. This species was not detected during the general biological resources assessment.
Thamnophis hammondii **Two-striped garter snake**	US: – CA: SSC	Highly aquatic. Only in or near permanent sources of water. Streams with rocky beds supporting willows or other riparian vegetation. From Monterey County to northwest Baja California.	Diurnal; year-round	**Not Expected.** Suitable habitat for this species is not present within the BSA. The nearest known record of occurrence is 0.5 mile northwest of the BSA. This species was not detected during the general biological resources assessment.
Birds				
Aimophila ruficeps canescens **Southern California rufous-crowned sparrow**	US: – CA: WL	Steep, rocky coastal sage scrub and open chaparral habitats, particularly scrubby areas mixed with grasslands. From Santa Barbara County to northwestern Baja California.	Year-round, diurnal activity	**Not Expected.** Suitable habitat for this species is not present within the BSA. The nearest known record of occurrence is 0.66 mile northwest of the BSA. This species was not detected during the general biological resources assessment.

Special-Status Species Table

Species	Status	Habitat and Distribution	Activity Period	Occurrence Probability
Agelaius tricolor (nesting colony) **Tricolored blackbird**	US: – CA: SSC (breeding)	Open country in western Oregon, California, and northwestern Baja California. Breeds near fresh water, preferably in emergent wetland with tall, dense cattails or tules, but also in thickets of willow, blackberry, wild rose, and tall herbs, and forages in grassland and cropland habitats. Seeks cover for roosting in emergent wetland vegetation, especially cattails and tules, and also in trees and shrubs.	Year-round	**Not Expected.** Suitable habitat for this species is not present within the BSA. The nearest known suitable habitat is along the San Diego River. This species was not detected during the general biological resources assessment.
Ammodramus savannarum (nesting) **Grasshopper sparrow**	US: – CA: SSC (breeding)	Grasslands, agricultural fields, prairie, old fields, and open savanna. Uncommon and very local summer resident on grassy slopes and mesas west of the deserts. Only rarely in migration and in winter. Coastal Southern California.	Coastal: year-round; only casually in migration elsewhere	**Not Expected.** Suitable habitat for this species is not present within the BSA. The nearest known record of occurrence is 1.5 miles north of the BSA. This species was not detected during the general biological resources assessment.
Buteo swainsoni (nesting) **Swainson's hawk**	US: – CA: ST	Open desert, grassland, or cropland containing scattered, large trees or small groves. Breeds in stands with few trees in juniper-sage flats, riparian areas, and in oak savannah in the Central Valley. Forages in adjacent grasslands or suitable grain or alfalfa fields, or livestock pastures. Breeds and nests in western North America; winters in South America. Uncommon breeding resident and migrant in the Central Valley, Klamath Basin, Northeastern Plateau, Lassen County, and Mojave Desert. Very limited breeding reported from Lanfair Valley, Owens Valley, Fish Lake Valley, and Antelope Valley. In Southern California, now mostly limited to spring and fall transient. Formerly abundant in California with wider breeding range.	Spring and fall (in migration)	**Not Expected.** Suitable habitat for this species is not present within the BSA. The nearest known record of occurrence (1921) is 0.45 mile south of the BSA. Possibly extirpated in San Diego County. This species was not detected during the general biological resources assessment.
Campylorhynchus brunneicapillus sandiegensis **San Diego cactus wren**	US: – CA: SSC	Inhabits coastal sage scrub, nesting almost exclusively in thickets of cholla (*Opuntia prolifera*) and prickly pear (*Opuntia littoralis* and *Opuntia oricola*), typically below 500 feet elevation. Found in coastal areas of Orange County and San Diego County, and extreme northwestern Baja California, Mexico.	Year-round (nonmigratory)	**Not Expected.** Suitable habitat for this species is not present within the BSA. The nearest known record of occurrence is 0.8 mile northwest of the BSA. This species was not detected during the general biological resources assessment.

Special-Status Species Table

Species	Status	Habitat and Distribution	Activity Period	Occurrence Probability
Coturnicops noveboracensis **Yellow rail**	US: – CA: SSC	Inhabits meadows and marshes with shallow water (2 to 3 inches).	Winter	**Not Expected.** Suitable habitat for this species is not present within the BSA. The nearest known record of occurrence (1998) is 0.45 mile south of the BSA. Only one known occurrence in San Diego County. This species was not detected during the general biological resources assessment.
Polioptila californica californica **Coastal California gnatcatcher**	US: FT CA: SSC	Inhabits coastal sage scrub in low-lying foothills and valleys in cismontane southwestern California and Baja California.	Year-round	**Not Expected.** Suitable habitat for this species is not present within the BSA. The nearest known record of occurrence is 0.8 mile northwest of the BSA. This species was not detected during the general biological resources assessment.
Vireo bellii pusillus **Least Bell's vireo**	US: FE CA: SE	Riparian forests and willow thickets. The most critical structural component of least Bell's vireo habitat in California is a dense shrub layer 2 to 10 feet above ground. Nests from central California to northern Baja California. Winters in southern Baja California.	April through September	**Not Expected.** Suitable habitat for this species is not present within the BSA. However, there is a low potential for this species to occur in the riparian vegetation within the tributary (drainage) west of Park Center Drive. The nearest known record of occurrence is 0.15 mile southwest of the BSA. This species was not detected during the general biological resources assessment.
Mammals				
Antrozous pallidus **Pallid bat**	US: – CA: SSC	Day roosts in caves, crevices, rocky outcrops, tree hollows or crevices, mines and occasionally buildings, culverts, and bridges. Night roosts may be more open sites, such as porches and open buildings. Grasslands, shrublands, woodlands, and forest in western North America.	Year-round; nocturnal	**Not Expected.** Suitable habitat for this species is not present within the BSA. There is a known record of occurrence near the BSA, but it is from 1951. More likely to occur closer to the San Diego River. This species was not detected during the general biological resources assessment.
Lepus californicus bennettii **San Diego black-tailed jackrabbit**	US: – CA: SSC	Open country of coastal Southern California and northwestern Baja California, but extirpated from many areas.	Year-round, diurnal and crepuscular activity	**Not Expected.** Suitable habitat for this species is not present within the BSA. The nearest known record of occurrence is 0.62 mile northwest of the BSA. This species was not detected during the general biological resources assessment.

Special-Status Species Table

Species	Status	Habitat and Distribution	Activity Period	Occurrence Probability
Neotoma lepida intermedia **San Diego desert woodrat**	US: – CA: SSC	Found in desert scrub and coastal sage scrub habitat, especially in association with cactus patches. Builds stick nests around cacti, or on rocky crevices. Occurs along the Pacific slope from San Luis Obispo County to northwest Baja California.	Year-round, mainly nocturnal, occasionally crepuscular and diurnal	**Not Expected.** Suitable habitat for this species is not present within the BSA. The nearest known record of occurrence is 1.3 miles west of the BSA. This species was not detected during the general biological resources assessment.
Nyctinomops femorasacca **Pocketed free-tailed bat**	US: – CA: SSC	Usually associated with cliffs or rock outcrops, often near riparian habitat. Occurs from the southwestern United States to central Mexico.	Primarily the warmer months	**Not Expected.** Suitable habitat for this species is not present within the BSA. The nearest known record of occurrence is 1.3 miles west of the BSA. This species was not detected during the general biological resources assessment.

STATUS ABBREVIATIONS

US: Federal Classifications

– No applicable classification.
FE Taxa federally listed as Endangered.
FT Taxa federally listed as Threatened.

CA: State Classifications

SE Taxa State-listed as Endangered.
ST Taxa State-listed as Threatened.
CFP California Fully Protected. Refers to animals protected from take under Fish and Game Code Sections 3511, 4700, 5050, and 5515.
SSC California Species of Special Concern. Refers to animals with vulnerable or seriously declining populations.
WL California Bird Species of Special Concern Watch List.
SA Special Animal. Refers to any other animal monitored by the Natural Diversity Database, regardless of its legal or protection status.
SP Special Plant. Refers to any other plant monitored by the Natural Diversity Database, regardless of its legal or protection status.

California Rare Plant Rankings (CRPR)

1B Rare, threatened, or endangered in California and elsewhere.
2B Rare, threatened, or endangered in California, but more common elsewhere.

CRPR Extensions

0.1 Seriously endangered in California (greater than 80% of occurrences threatened/high degree and immediacy of threat).
0.2 Fairly endangered in California (20 to 80% occurrences threatened).
0.3 Not very threatened in California (less than 20% occurrences threatened).

California Rare Plant Ranks are assigned by a committee of government agency and nongovernmental botanical experts and are not official State designations of rarity status.
BSA = Biological Study Area

APPENDIX B

CEQA TRANSPORTATION ANALYSIS SCREENING

CEQA Transportation Analysis Screening

The Project Information Form (PIF) is to be completed by the applicant. The PIF is subject to change as new project information arises.

General Project Information and Description

Owner/Applicant Information

Name:	Eric Miller - City Ventures
Address:	3121 Michelson Drive, Suite 150, Irvine, CA 92612
Phone Number:	(909) 996-8585
Email:	emiller@cityventures.com

Project Information

Project Name:	Park Center Townhomes Project
Project Address:	vacant property bounded by 10223 Mast Blvd (Phantastic Auto Repair) to the north, 655 Park Center Dr (Edgemoor Hospital) to the south, 10267 Mast Blvd (The Addison) to the east, and Park Center Dr to the west
APN:	381-032-07-00 and 381-032-08
Land Use Designation:	**Zoning Designation:** TC - Town Center

CEQA Transportation Analysis Screening

To determine if your project is screened from VMT analysis, review the Project Type Screening and the Project Location Screening tables below. If no "Yes" is checked for any project type or land use applicable to your project, the project is not screened out and must complete VMT analysis in accordance with the analysis requirements outline in the City of Santee *SB 743 Guidelines*. Trip generation should be supported by a memo prepared by a traffic engineer.

Project Type Screening

		Screened Out	Not Screened Out
	1. Select the Screening Criteria that applies to your project 2. Answer the questions for each screening criteria that applies to your project *(if "Yes" is indicated in any land use category below, then that land use (or a portion of the land use) is screened from CEQA Transportation Analysis)* *Note: All responses must be documented and supported by substantial evidence.*	Yes	No
☐	**1. Project located in a transit accessible area** a. Is the project in a transit priority area or within ½ mile of a stop along a high-quality transit corridor, and has the following project characteristics? i. Has a Floor Area Ratio (FAR) of more than 0.75 ii. Includes no more than the minimum parking for use by residents, customers, or employees of the project than required by the jurisdiction iii. Is consistent with the City of Santee General Plan iv. Does not replace affordable residential units with moderate- or high-income residential units. v. Have basic walking and biking access to transit	☐	☐
☒	**2. Small Project** a. The project generates 500 or fewer net new daily vehicle trips	☒	☐

☐	3. Projects in VMT-Efficient area (Provide SANDAG screening map showing project location) a. Residential Projects: Is the project located in a VMT-efficient area (15% or more below the baseline citywide average) using the SANDAG screening maps for VMT/Capita? b. Employment Projects: Is the project located in a VMT-efficient area (15% or more below the baseline citywide average) using the SANDAG screening maps for VMT/Employee? c. Industrial Projects: Is the project located in a VMT-efficient area (at or below the baseline citywide average) using the SANDAG screening maps for VMT/Employee? d. Mixed-use Projects: refer to the appropriate section for each land-use included as part of the mixed-use project	☐	☐
☐	4. Locally Serving Retail Projects a. Is the project less than 125 ksf and serving the local community?The City may request a market capture study that identifies local market capture to the City's satisfaction. (for Retail Projects above 50 ksf, market studies may be required to demonstrate that at least 75% of customers are local customers)	☐	☐
☐	5. Locally Serving Public Facility or Community Purpose Facility a. Is the project a public facility or Community Purpose Facility that serves the local community? (see section 2.3 of VMT analysis guidelines for a list of public facilities)	☐	☐
☐	6. Redevelopment Project a. Is the proposed project's total project VMT less than the existing land use's total VMT? And the CEQA action includes closing the existing land use?	☐	☐
☐	7. Infill affordable housing a. Is the proposed project a deed restricted affordable housing project that meet the following criteria? i. Is an infill project; ii. Consists of a minimum of 52% affordable housing; iii. Is within ½ mile radius of a transit stop or station; and iv. Project provided parking does not exceed parking required by the City of Santee	☐	☐

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Table A: Project Trip Generation

Land Use	Size	Unit	Daily	AM Peak Hour			PM Peak Hour		
				In	Out	Total	In	Out	Total
Trip Rates[1]									
Condominium		du	8.00	0.13	0.51	0.64	0.56	0.24	0.80
Project Trip Generation									
Condominium	53	du	424	7	27	34	30	13	43

[1] Trip rates from the San Diego Association of Governments (SANDAG) *(Not So) Brief Guide of Vehicular Traffic Generation Rates for the San Diego Region* (April 2002). Condominium (or any multi-family units 6-20 du/acre).

du = dwelling unit

APPENDIX C

NOISE AND VIBRATION IMPACT ANALYSIS

NOISE AND VIBRATION IMPACT ANALYSIS

PARK CENTER TOWNHOMES PROJECT

SANTEE, CALIFORNIA

LSA

August 2024

NOISE AND VIBRATION IMPACT ANALYSIS

PARK CENTER TOWNHOMES PROJECT

SANTEE, CALIFORNIA

Submitted to:

City Ventures Homebuilding, LLC
3121 Michelson Drive, Suite 150
Irvine, California 92612

Prepared by:

LSA
157 Park Place
Richmond, California 94801
(510) 236-6810

Project No. 20241698

LSA

August 2024

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LIST OF ABBREVIATIONS AND ACRONYMS

City	City of Santee
CNEL	Community Noise Equivalent Level
dBA	A-weighted decibel
EPA	United States Environmental Protection Agency
ft	feet
FHWA	Federal Highway Administration
FTA	Federal Transit Administration
HVAC	heating, ventilation, and air conditioning
in/sec	inches per second
L_{dn}	day-night average noise level
L_{eq}	equivalent continuous sound level
L_{max}	maximum instantaneous sound level
PPV	peak particle velocity
project	Park Center Apartments Project
RMS	root-mean-square
sf	square feet
SPL	sound power level
STC	Sound Transmission Class
VdB	vibration velocity decibels

INTRODUCTION

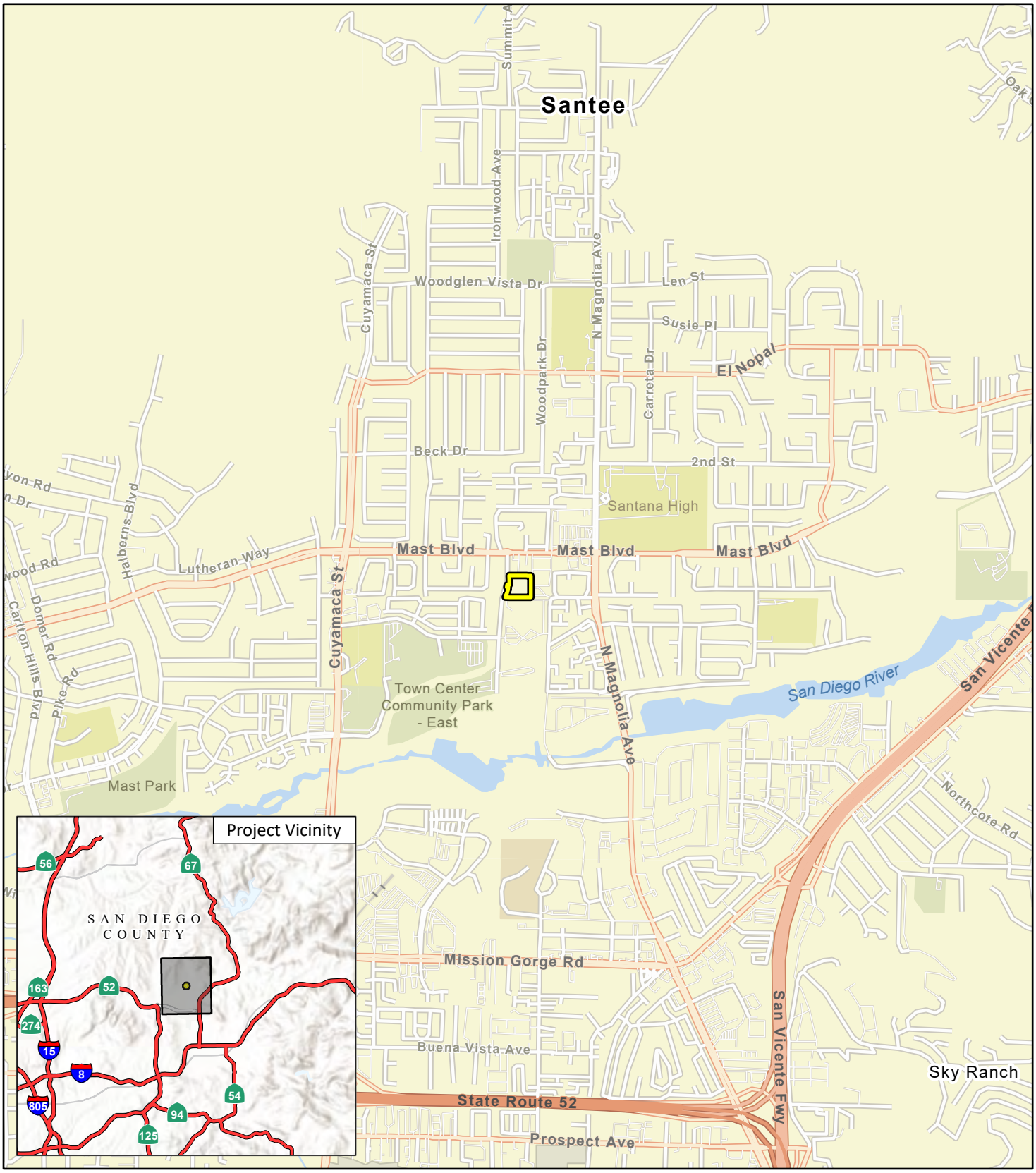
This noise and vibration impact analysis has been prepared to evaluate the potential noise and vibration impacts and reduction measures associated with the proposed Park Center Townhomes Project (project) in Santee, California. This report is intended to satisfy the City of Santee's (City) requirement for a project-specific noise impact analysis by examining the impacts of the project site and evaluating noise reduction measures that the project may require.

PROJECT LOCATION AND DESCRIPTION

The proposed project is located immediately east of Park Center Drive and approximately 300 feet south of Mast Boulevard in Santee, California.

The project site is within the Town Center Specific Plan (Assessor's Parcel Numbers 381-032-07-00 and 381-032-08-00) and is zoned as R14 – Medium High Density Residential (14–22 dwelling units per gross acre). The regional vicinity and project location are shown in Figure 1.

The project would construct 53 three-story multifamily residential townhomes within 10 buildings, 106 enclosed garage spaces, and 13 guest parking spaces. Figure 2 illustrates the site plan.



LSA

Project Location

FIGURE 1

N

0 1000 2000

FEET

SOURCE: Esri Street Map 2024

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Park Center Townhomes Project

Project Location

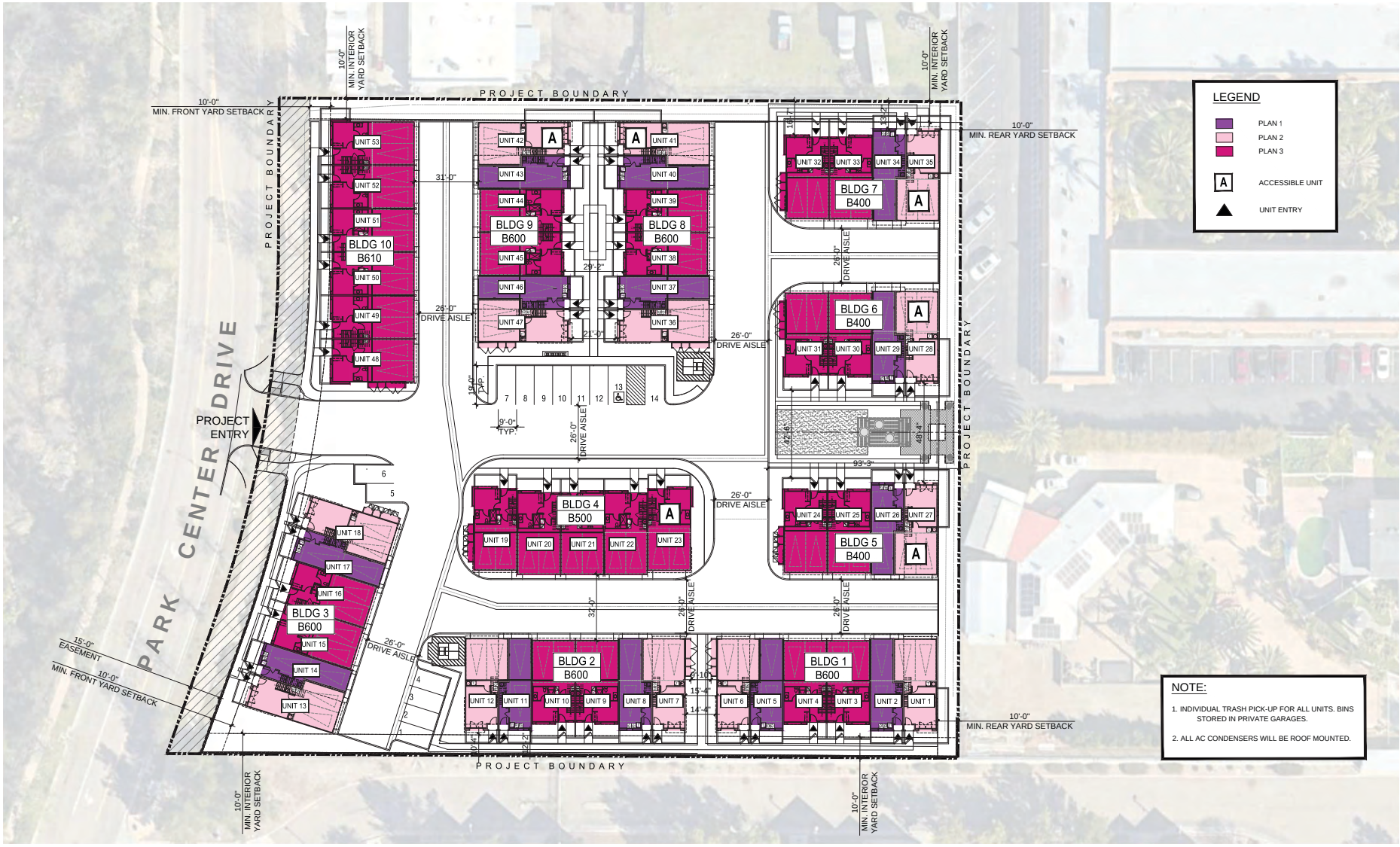

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FIGURE 2

0 40 80

FEET

SOURCE: KTGY

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Park Center Townhomes Project

Site Plan

EXISTING LAND USES IN THE PROJECT AREA

The project site is surrounded primarily by residential and commercial uses. The areas adjacent to the project site include the following uses:

- **North:** Existing Phantastic Auto Repair shop;
- **East:** Existing The Addison apartment complex and a single-family residence at 10264 Palm Glen Drive;
- **South:** Existing County of San Diego Health and Human Services Agency Edgemoor DPSNF (Edgemoor Hospital); and
- **West:** Existing single-family residences opposite Park Center Drive.

A summary of analysis distances relative to sensitive receptors for noise and structures for vibration damage is provided in Table A.

Table A: Summary of Analysis Distances by Impact Category

Activity	Nearest Receptor or Structure	Points of Analysis	Distance (feet)
Construction Noise – Construction Vibration Annoyance	Single-family home at 10264 Palm Glen Drive	Center of project site to façade of home	200
Construction Vibration Damage	Ancillary buildings of the single-family home at 10264 Palm Glen Drive	Perimeter of construction activities to nearest structure	15[1]
Off-Site Operational Traffic Noise and Vibration	Façade of Edgemoor Hospital	Centerline of Park Center Drive to building facade	50

1. Distance for vibration damage potential includes the assumption that heavy construction equipment would operate approximately 10 feet from the proposed project boundary which is 5 feet from the nearest off-site structures.

NOISE AND VIBRATION FUNDAMENTALS

CHARACTERISTICS OF SOUND

Noise is usually defined as unwanted sound. Noise consists of any sound that may produce physiological or psychological damage and/or interfere with communication, work, rest, recreation, and sleep.

To the human ear, sound has two significant characteristics: pitch and loudness. Pitch is generally an annoyance, while loudness can affect the ability to hear. Pitch is the number of complete vibrations, or cycles per second, of a sound wave, which results in the tone's range from high to low. Loudness is the strength of a sound, and it describes a noisy or quiet environment; it is measured by the amplitude of the sound wave. Loudness is determined by the intensity of the sound waves combined with the reception characteristics of the human ear. Sound intensity is the average rate of sound energy transmitted through a unit area perpendicular to the direction in which the sound waves are traveling. This characteristic of sound can be precisely measured with instruments. The analysis of a project defines the noise environment of the project area in terms of sound intensity and its effect on adjacent sensitive land uses.

MEASUREMENT OF SOUND

Sound intensity is measured with the A-weighted decibel (dBA) scale to correct for the relative frequency response of the human ear. That is, an A-weighted noise level de-emphasizes low and very high frequencies of sound, similar to the human ear's de-emphasis of these frequencies. Decibels (dB), unlike the linear scale (e.g., inches or pounds), are measured on a logarithmic scale representing points on a sharply rising curve.

For example, 10 dB is 10 times more intense than 0 dB, 20 dB is 100 times more intense than 0 dB, and 30 dB is 1,000 times more intense than 0 dB. Thirty decibels (30 dB) represents 1,000 times as much acoustic energy as 0 dB. The decibel scale increases as the square of the change, representing the sound pressure energy. A sound as soft as human breathing is about 10 times greater than 0 dB. The decibel system of measuring sound gives a rough connection between the physical intensity of sound and its perceived loudness to the human ear. A 10 dB increase in sound level is perceived by the human ear as only a doubling of the sound's loudness. Ambient sounds generally range from 30 dB (very quiet) to 100 dB (very loud).

Sound levels are generated from a source, and their decibel level decreases as the distance from that source increases. Sound levels dissipate exponentially with distance from their noise sources. For a single point source, sound levels decrease approximately 6 dB for each doubling of distance from the source. This drop-off rate is appropriate for noise generated by stationary equipment. If noise is produced by a line source (e.g., highway traffic or railroad operations), the sound decreases 3 dB for each doubling of distance in a hard site environment. Line source sound levels decrease 4.5 dB for each doubling of distance in a relatively flat environment with absorptive vegetation.

There are many ways to rate noise for various time periods, but an appropriate rating of ambient noise affecting humans also accounts for the annoying effects of sound. The equivalent continuous sound level (L_{eq}) is the total sound energy of time-varying noise over a sample period. However, the predominant rating scales for human communities in the State of California are the L_{eq} and Community Noise Equivalent Level (CNEL) or the day-night average noise level (L_{dn}) based on A-weighted decibels. CNEL is the time-weighted average noise over a 24-hour period, with a 5 dBA weighting factor applied to the hourly L_{eq} for noises occurring from 7:00 p.m. to 10:00 p.m. (defined as relaxation hours) and a 10 dBA weighting factor applied to noises occurring from 10:00 p.m. to 7:00 a.m. (defined as sleeping hours). L_{dn} is similar to the CNEL scale but without the adjustment for events occurring during the relaxation. CNEL and L_{dn} are within 1 dBA of each other and are normally interchangeable. The City uses the L_{dn} noise scale for long-term traffic noise impact assessment.

Other noise rating scales of importance when assessing the annoyance factor include the maximum instantaneous noise level (L_{max}), which is the highest sound level that occurs during a stated time period. The noise environments discussed in this analysis for short-term noise impacts are specified in terms of maximum levels denoted by L_{max}, which reflects peak operating conditions and addresses the annoying aspects of intermittent noise. It is often used together with another noise scale, or noise standards in terms of percentile noise levels, in noise ordinances for enforcement purposes. For example, the L_{10} noise level represents the noise level exceeded 10 percent of the time during a stated period. The L_{50} noise level represents the median noise level. Half the time the noise level exceeds this level, and half the time it is less than this level. The L_{90} noise level represents the noise level exceeded 90 percent of the time and is considered the background noise level during a monitoring period. For a relatively constant noise source, the L_{eq} and L_{50} are approximately the same.

Noise impacts can be described in three categories. The first category includes audible impacts, which are increases in noise levels noticeable to humans. Audible increases in noise levels generally refer to a change of 3 dB or greater because this level has been found to be barely perceptible in exterior environments. The second category, potentially audible, refers to a change in the noise level between 1 dB and 3 dB. This range of noise levels has been found to be noticeable only in laboratory environments. The last category includes changes in noise levels of less than 1 dB, which are inaudible to the human ear. Only audible changes in existing ambient or background noise levels are considered potentially significant.

Physiological Effects of Noise

Physical damage to human hearing begins at prolonged exposure to sound levels higher than 85 dBA. Exposure to high sound levels affects the entire system, with prolonged sound exposure in excess of 75 dBA increasing body tensions, thereby affecting blood pressure and functions of the heart and the nervous system. In comparison, extended periods of sound exposure above 90 dBA would result in permanent cell damage. When the sound level reaches 120 dBA, a tickling sensation occurs in the human ear, even with short-term exposure. This level of sound is called the threshold of feeling. As the sound reaches 140 dBA, the tickling sensation is replaced by a feeling of pain in the ear (i.e., the threshold of pain). A sound level of 160–165 dBA will result in dizziness or a

loss of equilibrium. The ambient or background noise problem is widespread and generally more concentrated in urban areas than in outlying, less developed areas.

Table B lists definitions of acoustical terms, and Table C shows common sound levels and their sources.

Table B: Definitions of Acoustical Terms

Term	Definitions
Decibel, dB	A unit of sound measurement that denotes the ratio between two quantities that are proportional to power; the number of decibels is 10 times the logarithm (to the base 10) of this ratio.
Frequency, Hz	Of a function periodic in time, the number of times that the quantity repeats itself in 1 second (i.e., the number of cycles per second).
A-Weighted Sound Level, dBA	The sound level obtained by use of A-weighting. The A-weighting filter de-emphasizes the very low and very high frequency components of the sound in a manner similar to the frequency response of the human ear and correlates well with subjective reactions to noise. (All sound levels in this report are A-weighted unless reported otherwise.)
L_{01}, L_{10}, L_{50}, L_{90}	The fast A-weighted noise levels that are equaled or exceeded by a fluctuating sound level 1%, 10%, 50%, and 90% of a stated time period, respectively.
Equivalent Continuous Noise Level, L_{eq}	The level of a steady sound that, in a stated time period and at a stated location, has the same A-weighted sound energy as the time-varying sound.
Community Noise Equivalent Level, CNEL	The 24-hour A-weighted average sound level from midnight to midnight, obtained after the addition of 5 dBA to sound levels occurring in the evening from 7:00 p.m. to 10:00 p.m. and after the addition of 10 dBA to sound levels occurring in the night between 10:00 p.m. and 7:00 a.m.
Day/Night Noise Level, L_{dn}	The 24-hour A-weighted average sound level from midnight to midnight, obtained after the addition of 10 dBA to sound levels occurring in the night between 10:00 p.m. and 7:00 a.m.
L_{max}, L_{min}	The maximum and minimum A-weighted sound levels measured on a sound level meter, during a designated time interval, using fast time averaging.
Ambient Noise Level	The all-encompassing noise associated with a given environment at a specified time. Usually a composite of sound from many sources from many directions, near and far; no particular sound is dominant.
Intrusive	The noise that intrudes over and above the existing ambient noise at a given location. The relative intrusiveness of a sound depends upon its amplitude, duration, frequency, time of occurrence, and tonal or informational content, as well as the prevailing ambient noise level.

Source: *Handbook of Acoustical Measurements and Noise Control* (Harris 1991).

Table C: Common Sound Levels and Their Noise Sources

Noise Source	A-Weighted Sound Level in Decibels	Noise Environments	Subjective Evaluations
Near Jet Engine	140	Deafening	128 times as loud
Civil Defense Siren	130	Threshold of Pain	64 times as loud
Hard Rock Band	120	Threshold of Feeling	32 times as loud
Accelerating Motorcycle at a Few Feet Away	110	Very Loud	16 times as loud
Pile Driver; Noisy Urban Street/Heavy City Traffic	100	Very Loud	8 times as loud
Ambulance Siren; Food Blender	95	Very Loud	—
Garbage Disposal	90	Very Loud	4 times as loud
Freight Cars; Living Room Music	85	Loud	—
Pneumatic Drill; Vacuum Cleaner	80	Loud	2 times as loud
Busy Restaurant	75	Moderately Loud	—
Near Freeway Auto Traffic	70	Moderately Loud	Reference level
Average Office	60	Quiet	One-half as loud
Suburban Street	55	Quiet	—
Light Traffic; Soft Radio Music in Apartment	50	Quiet	One-quarter as loud
Large Transformer	45	Quiet	—
Average Residence without Stereo Playing	40	Faint	One-eighth as loud
Soft Whisper	30	Faint	—
Rustling Leaves	20	Very Faint	—
Human Breathing	10	Very Faint	Threshold of Hearing
—	0	Very Faint	—

Source: Compiled by LSA (2022).

FUNDAMENTALS OF VIBRATION

Vibration refers to ground-borne noise and perceptible motion. Ground-borne vibration is almost exclusively a concern inside buildings and is rarely perceived as a problem outdoors, where the motion may be discernible, but without the effects associated with the shaking of a building there is less adverse reaction. Vibration energy propagates from a source through intervening soil and rock layers to the foundations of nearby buildings. The vibration then propagates from the foundation throughout the remainder of the structure. Building vibration may be perceived by occupants as the motion of building surfaces, the rattling of items sitting on shelves or hanging on walls, or a low-frequency rumbling noise. The rumbling noise is caused by the vibration of walls, floors, and ceilings that radiate sound waves. Annoyance from vibration often occurs when the vibration exceeds the threshold of perception by 10 dB or less. This is an order of magnitude below the damage threshold for normal buildings.

Typical sources of ground-borne vibration are construction activities (e.g., blasting, pile-driving, and operating heavy-duty earthmoving equipment), steel-wheeled trains, and occasional traffic on rough roads. Problems with both ground-borne vibration and noise from these sources are usually localized to areas within approximately 100 ft from the vibration source, although there are examples of ground-borne vibration causing interference out to distances greater than 200 ft (FTA 2018). When roadways are smooth, vibration from traffic, even heavy trucks, is rarely perceptible. It is assumed for most projects that the roadway surface will be smooth enough that ground-borne

vibration from street traffic will not exceed the impact criteria; however, construction of the project could result in ground-borne vibration that may be perceptible and annoying.

Ground-borne noise is not likely to be a problem because noise arriving via the normal airborne path will usually be greater than ground-borne noise.

Ground-borne vibration has the potential to disturb people and damage buildings. Although it is very rare for train-induced ground-borne vibration to cause even cosmetic building damage, it is not uncommon for construction processes such as blasting and pile-driving to cause vibration of sufficient amplitudes to damage nearby buildings (FTA 2018). Ground-borne vibration is usually measured in terms of vibration velocity, either the root-mean-square (RMS) velocity or peak particle velocity (PPV). The RMS is best for characterizing human response to building vibration, and PPV is used to characterize the potential for damage. Decibel notation acts to compress the range of numbers required to describe vibration. Vibration velocity level in decibels is defined as

$$L_v = 20 \log_{10} [V/V_{ref}]$$

where "L_v" is the vibration velocity in decibels (VdB), "V" is the RMS velocity amplitude, and "V_{ref}" is the reference velocity amplitude, or 1×10^{-6} inches/second (in/sec) used in the United States.

REGULATORY SETTING

APPLICABLE NOISE STANDARDS

The applicable noise standards governing the project site include the criteria in the California Code of Regulations, the City's Noise Element of the General Plan (Noise Element) and the Santee Municipal Code.

California Code of Regulations

Interior noise levels for residential habitable rooms are regulated by Title 24 of the California Code of Regulations California Noise Insulation Standards. Title 24, Chapter 12, Section 1206.4, of the 2019 California Building Code requires that interior noise levels attributable to exterior sources not exceed 45 CNEL in any habitable room (California Code of Regulations 2019). A habitable room is a room used for living, sleeping, eating, or cooking. Bathrooms, closets, hallways, utility spaces, and similar areas are not considered habitable rooms for this regulation (Title 24 California Code of Regulations, Chapter 12, Section 1206.4).

City of Santee

Noise Element of the General Plan

The goals, objectives, and policies in the City's General Plan Noise Element are designed to provide noise compatible land use relationships by establishing noise standards utilized for design and siting purposes and minimize noise impacts from significant noise generators. The following goals and policies are applicable to the proposed project:

Objective 1.0. Control noise from sources adjacent to residential, institutional, and other noise-sensitive receptors.

- **Policy 1.1**: The City shall support a coordinated program to protect and improve the acoustical environment of the City including development review for new public and private development and code compliance for existing development.

- **Policy 1.2**: The City shall utilize noise studies and noise contour maps when evaluating development proposals during the discretionary review process.

- **Policy 1.4**: The City shall promote alternative sound attenuation measures rather than traditional wall barrier wherever feasible; these may include glass or polycarbonate walls, berms, landscaping, and the siting of noise-sensitive uses on a parcel away from the roadway or other noise source.

- **Policy 1.5**: The City shall review future projects with particular scrutiny regarding the reduction of unnecessary noise near noise-sensitive areas such as hospitals, schools, parks, etc.

Objective 2.0. Ensure that future developments will be constructed to minimize interior and exterior noise levels.

- **Policy 2.1**: The City shall adhere to planning guidelines and building codes which include noise control for the exterior and interior living space of all new residential developments within noise impacted areas.

- **Policy 2.2**: The City should require new development to mitigate noise impacts to existing uses resulting from new development when: 1) such development adds traffic to existing City streets that necessitates the widening of the street; and 2) the additional traffic generated by new development causes the noise standard or significance thresholds to be exceeded.

- **Policy 2.3**: The City should not require new development to mitigate noise impacts to existing uses when new development only adds traffic already anticipated by the City's General Plan to an existing street, but does not necessitate widening of that street.

Section 8.1 of the City's Noise Element discusses threshold for CEQA impact determination. The California Environmental Quality Act encourages jurisdictions to establish local thresholds for determining whether a particular impact is significant If, as a direct result of the proposed development, noise levels which already exceed the levels considered compatible for that use are increased by 3 or more decibels.

Development standards should be applied to future projects during the discretionary review process and should include the following:

1. Whenever it appears that new development will result in any existing or future noise sensitive uses being subjected to noise levels of 65 dB(A) L_{dn}, or greater, as depicted in Table D, an acoustical study will be required.

   For residential uses, noise sensitive areas shall include rear yard areas on single family residences and ground floor common areas and private patio areas for multiple family residences. For other noise sensitive uses such as libraries, schools or hospitals, noise sensitive areas shall be those areas that serve a significant function for the use that could be adversely affected by noise. Examples include resting or patient recovery areas at hospitals, outdoor service areas for churches (excluding areas used for short-term social gatherings) or outdoor teaching or discussion areas at schools (does not include playgrounds or other active outdoor areas).

2. If the acoustical study shows that the noise levels at any noise sensitive area will exceed 65 dB(A) L_{dn}, the development should not be approved unless the following findings are made:

   a. Modifications to the development have been, or will be made, which will reduce the exterior noise level in noise sensitive areas to 65 dBA L_{dn} or less, or

   b. If, with current noise abatement technology, it is not feasible to reduce the exterior noise level to 65 dBA L_{dn} or less, then modifications to the development will have

been, or will be made which reduce the exterior noise level to the maximum extent feasible and the interior noise level to 45 dBA L_{dn} or less. Particular attention shall be given to noise sensitive spaces such as bedrooms.

Table D presents the Noise Element guidelines for determining acceptable and unacceptable community noise exposure limits for various land use categories.

Table D: Santee General Plan Land Use Compatibility Guidelines (Ldn)

Land Use Category	Normally Acceptable	Conditionally Acceptable	Normally Unacceptable	Clearly Unacceptable
Residential – Low Density, Single-Family, Duplex, Mobile Homes	50 – 65	65 – 70	70 – 75	75 – 85
Residential – Multiple family	50 – 65	65 – 70	70 – 75	75 – 85
Transient Lodging – Motel, Hotels	50 – 65	65 – 70	70 – 80	80 – 85
Schools, Libraries, Churches, Hospitals, Nursing Homes[1]	50 – 65	65 – 70	70 – 80	80 – 85
Auditoriums, Concert Halls, Amphitheaters	50 – 60	60 – 70	NA	70 – 85
Sports Arenas, Outdoor Spectator Sports	50 – 65	65 – 75	NA	75 – 85
Playgrounds, Neighborhood Parks	50 – 70	NA	70 – 75	75 – 85
Golf Courses, Riding Stables, Water Recreation, Cemeteries	50 – 75	NA	75 – 80	80 – 85
Office Buildings, Business Commercial, and Professional	50 – 70	70 – 75	75 – 85	NA
Industrial, Manufacturing, Utilities, Agriculture	50 – 75	75 – 80	80 – 85	NA

Source: City of Santee 2003.
Notes: Ldn = day-night Noise Level; NA = not applicable
1 Applies to noise-sensitive areas which serve a significant function for the use which could be adversely affected by noise such as outside areas used primarily for instruction, meditation areas, rest and relaxation areas, and other areas where general peace and quiet are important.

Normally Acceptable: Specified land use is satisfactory, based upon the assumption that any buildings involved are of normal conventional construction, without any special noise insulation requirements.

Conditionally Acceptable: New construction or development should be undertaken only after a detailed analysis of the noise reduction requirements is made and needed noise insulation features have been included in the design. Conventional construction, but with closed windows and fresh air supply systems or air conditioning, will normally suffice.

Normally Unacceptable: New construction or development should be discouraged. If new construction or development does proceed, a detailed analysis of the noise reduction requirements must be made and needed noise insulation features must be included in the design.

Clearly Unacceptable: New construction or development should generally not be undertaken.

City of Santee Municipal Code

The City of Santee addresses noise impacts in Chapter 5.04 of the City's Municipal Code. Section 5.04.040, which establishes the City's noise regulation, generally prohibits nuisance noise and states that it is unlawful for any person to make, continue, or cause to be made or continued within the City limits any disturbing, excessive, or offensive noise that causes discomfort or annoyance to reasonable persons of normal sensitivity residing in the area. This section details several specific sources of nuisance noise and outlines how it may be determined that the noise is in violation of the code. Specific sources of nuisance noise include, but are not limited to, devices for producing or reproducing sound, drums and other musical instruments, yelling, and animals.

Section 5.04.090, which specifically pertains to construction equipment, makes operation of any construction equipment outside the hours of 7:00 a.m. through 7:00 p.m., Monday through Saturday, except holidays, unlawful unless the operation is expressly approved by the Director of Development Services. Construction equipment with a manufacturer's noise rating of 85 dBA L_{max} or greater may only operate at a specific location for 10 consecutive workdays. If work involving such equipment would involve more than 10 consecutive workdays, a notice must be provided to all property owners and residents within 300 feet of the site no later than 10 days before the start of construction. The notice must be approved by the City and describe the proposed project and the expected duration of work and provide a point of contact to resolve noise complaints.

County of San Diego Noise Ordinance

Because the City of Santee does not have hourly operational noise level standards or construction noise level standards, the County of San Diego (County) Noise Ordinance is used for this analysis. The County Noise Ordinance establishes hourly average sound level limits for non-construction noise. The daytime (7:00 a.m. to 10:00 p.m.) and nighttime (10:00 p.m. to 7:00 a.m.) sound level limit for high-density residential areas is 55 dBA L_{eq} and 50 dBA L_{eq}, respectively.

Section 36.409 of the County's Noise Ordinance establishes the following limit on construction:

"Except for emergency work, it shall be unlawful for any person to operate construction equipment or cause construction equipment to be operated that exceeds an average sound level of 75 dB for an 8-hour period between 7:00 a.m. and 7:00 p.m. when measured at the boundary line of the property where the noise source is located or on any occupied property where the noise is being received."

APPLICABLE VIBRATION STANDARDS

Federal Transit Administration

Vibration standards included in the FTA Manual are used in this analysis for ground-borne vibration impacts on human annoyance. The criteria for environmental impact from ground-borne vibration and noise are based on the maximum levels for a single event. Table E provides the criteria for assessing the potential for interference or annoyance from vibration levels in a building.

Table E: Interpretation of Vibration Criteria for Detailed Analysis

Land Use	Max L_v (VdB)[1]	Description of Use
Workshop	90	Vibration that is distinctly felt. Appropriate for workshops and similar areas not as sensitive to vibration.
Office	84	Vibration that can be felt. Appropriate for offices and similar areas not as sensitive to vibration.
Residential Day	78	Vibration that is barely felt. Adequate for computer equipment and low-power optical microscopes (up to 20×).
Residential Night and Operating Rooms	72	Vibration is not felt, but ground-borne noise may be audible inside quiet rooms. Suitable for medium-power microscopes (100×) and other equipment of low sensitivity.

Source: *Transit Noise and Vibration Impact Assessment Manual* (FTA 2018).
[1] As measured in 1/3-Octave bands of frequency over the frequency range 8 to 80 Hertz.
FTA = Federal Transit Administration
L_V = velocity in decibels
VdB = vibration velocity decibels
Max = maximum

Table F lists the potential vibration building damage criteria associated with construction activities, as suggested in the FTA Manual. FTA guidelines show that a vibration level of up to 0.5 in/sec in PPV is considered safe for buildings consisting of reinforced concrete, steel, or timber (no plaster), and would not result in any construction vibration damage. For non-engineered timber and masonry buildings, the construction building vibration damage criterion is 0.2 in/sec in PPV.

Table F: Construction Vibration Damage Criteria

Building Category	PPV (in/sec)
Reinforced concrete, steel, or timber (no plaster)	0.50
Engineered concrete and masonry (no plaster)	0.30
Non-engineered timber and masonry buildings	0.20
Buildings extremely susceptible to vibration damage	0.12

Source: *Transit Noise and Vibration Impact Assessment Manual* (FTA 2018).
FTA = Federal Transit Administration
PPV = peak particle velocity
in/sec = inch/inches per second

OVERVIEW OF THE EXISTING NOISE ENVIRONMENT

The primary existing noise sources in the project area are the existing residential uses to the east and operational noise from the automotive repair shop to the north. Traffic on Mast Boulevard and Park Center Drive is a steady source of background ambient noise.

AMBIENT NOISE MEASUREMENTS

Long-Term Noise Measurements

Long-term (24-hour) noise level measurements were conducted on April 13th and 14th, 2022, using two (2) Larson Davis Spark 706RC Dosimeters. Table G provides a summary of the measured hourly noise levels and calculated L_{dn} level from the long-term noise level measurements. As shown in Table G, the calculated L_{dn} levels range from 57.0 dBA L_{dn} to 57.3 dBA L_{dn}. Hourly noise levels at surrounding sensitive uses are as low as 41.9 dBA L_{eq} during nighttime hours and 48.1 dBA L_{eq} during daytime hours. Long-term noise monitoring data results are provided in Appendix A. Figure 3 shows the long-term monitoring locations.

Table G: Long-Term Ambient Noise Level Measurements

Location		Daytime Noise Levels[1] (dBA L_{eq})	Nighttime Noise Levels[3] (dBA L_{eq})	Day-Night Average Noise Level (dBA L_{dn})
LT-1	Near automotive shop boundary directly north of project site, located on a white chain-link fence next to a tree that borders the project site and the automotive repair shop. Approximately 185 feet east of Park Center Drive centerline	48.1-62.1	42.2-55.5	57.3
LT-2	Near eastern border of the project site, where the white fence and chain link fence meet, approximately 365 feet east of Park Center Drive centerline	48.5-61.4	41.9-54.6	57.0

Source: Compiled by LSA (2022).
Note: Noise measurements were conducted from April 13 to April 14, 2022, starting at 4:00 p.m. for LT-1 and LT-2.
[1] Daytime Noise Levels = noise levels during the hours from 7:00 a.m. to 7:00 p.m.
[2] Evening Noise Levels = noise levels during the hours from 7:00 p.m. to 10:00 p.m.
[3] Nighttime Noise Levels = noise levels during the hours from 10:00 p.m. to 7:00 a.m.
dBA = A-weighted decibels
L_{eq} = equivalent continuous sound level
L_{dn} = Day/Night Noise Level

EXISTING AIRCRAFT NOISE

Airport-related noise levels are primarily associated with aircraft engine noise made while aircraft are taking off, landing, or running their engines while still on the ground. The closest airport to the proposed project site is Gillespie Field airport in the City of El Cajon located approximately 1.7 miles south of the project site. Based on the Gillespie Field Airport Land Use Compatibility Plan (SDCRAA 2010) the project is located outside of the 60 dBA CNEL noise contour for Gillespie Field.

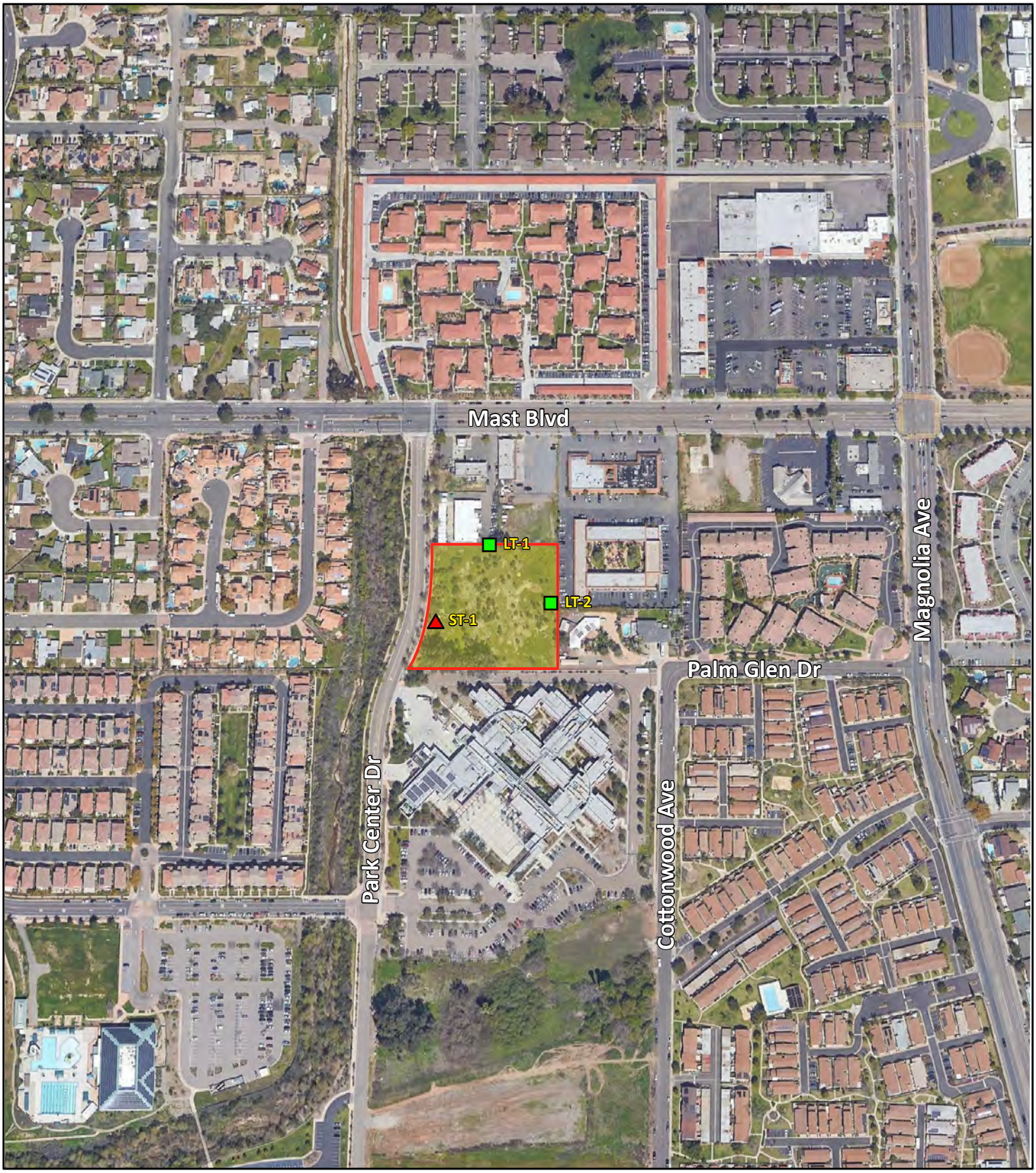

FIGURE 3

LSA

LEGEND

Project Location

ST-1 Short-term Noise Monitoring Location

LT-1 Long-term Noise Monitoring Location

0 100 200

FEET

SOURCE: Google Earth 2022

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Park Center Townhomes Project

Noise Monitoring Locations

PROJECT IMPACT ANALYSIS

SHORT-TERM CONSTRUCTION NOISE IMPACTS

Two types of short-term noise impacts could occur during the construction of the proposed project. First, construction crew commutes and the transport of construction equipment and materials to the site for the proposed project would incrementally increase noise levels on access roads leading to the site. Although there would be a relatively high single-event noise-exposure potential causing intermittent noise nuisance (passing trucks at 50 ft would generate up to 84 dBA L_{max}), the effect on longer-term ambient noise levels would be small when compared to existing daily traffic volumes on Mast Boulevard and Park Center Drive. Because construction-related vehicle trips would not approach existing daily traffic volumes, traffic noise would not increase by 3 dBA CNEL. A noise level increase of less than 3 dBA would not be perceptible to the human ear in an outdoor environment. Therefore, short-term, construction-related impacts associated with worker commute and equipment transport to the project site would be less than significant.

The second type of short-term noise impact is related to noise generated during construction which includes site preparation, grading, building construction, paving, and architectural coating on the project site. Construction is completed in discrete steps, each of which has its own mix of equipment and, consequently, its own noise characteristics. These various sequential phases would change the character of the noise generated on the site and, therefore, the noise levels surrounding the site as construction progresses. Despite the variety in the type and size of construction equipment, similarities in the dominant noise sources and patterns of operation allow construction-related noise ranges to be categorized by work phase. Table H lists typical construction equipment noise levels recommended for noise impact assessments, based on a distance of 50 ft between the equipment and a noise receptor, taken from the FHWA *Roadway Construction Noise Model* (FHWA 2006).

In addition to the reference maximum noise level, the usage factor provided in Table H is used to calculate the hourly noise level impact for each piece of equipment based on the following equation:

$$L_{eq}(equip) = E.L. + 10\log(U.F.) - 20\log\left(\frac{D}{50}\right)$$

where: $L_{eq}(equip)$ = L_{eq} at a receiver resulting from the operation of a single piece of equipment over a specified time period.

E.L. = noise emission level of the particular piece of equipment at a reference distance of 50 ft.

U.F. = usage factor that accounts for the fraction of time that the equipment is in use over the specified period of time.

D = distance from the receiver to the piece of equipment.

Table H: Typical Construction Equipment Noise Levels

Equipment Description	Acoustical Usage Factor (%)[1]	Maximum Noise Level (L_{max}) at 50 Feet[2]
Auger Drill Rig	20	84
Backhoes	40	80
Compactor (ground)	20	80
Compressor	40	80
Cranes	16	85
Dozers	40	85
Dump Trucks	40	84
Excavators	40	85
Flat Bed Trucks	40	84
Forklift	20	85
Front-end Loaders	40	80
Graders	40	85
Impact Pile Drivers	20	95
Jackhammers	20	85
Paver	50	77
Pickup Truck	40	55
Pneumatic Tools	50	85
Pumps	50	77
Rock Drills	20	85
Rollers	20	85
Scrapers	40	85
Tractors	40	84
Trencher	50	80
Welder	40	73

Source: FHWA Roadway Construction Noise Model User's Guide, Table 1 (FHWA 2006).
Note: Noise levels reported in this table are rounded to the nearest whole number.
[1] Usage factor is the percentage of time during a construction noise operation that a piece of construction equipment is operating at full power.
[2] Maximum noise levels were developed based on Specification 721.560 from the Central Artery/Tunnel program to be consistent with the City of Boston's Noise Code for the "Big Dig" project.
FHWA = Federal Highway Administration
L_{max} = maximum instantaneous sound level

Each piece of construction equipment operates as an individual point source. Using the following equation, a composite noise level can be calculated when multiple sources of noise operate simultaneously:

$$Leq\ (composite) = 10 * \log_{10}\left(\sum_{1}^{n} 10^{\frac{Ln}{10}}\right)$$

Using the equations from the methodology above, the reference information in Table H, and the construction equipment list provided, the composite noise level of each construction phase was calculated. The project construction composite noise levels at a distance of 50 feet would range from 74 dBA L_{eq} to 86 dBA L_{eq} with the highest noise levels occurring during the grading and paving phases.

Once composite noise levels are calculated, reference noise levels can then be adjusted for distance using the following equation:

$$Leq\ (at\ distance\ X) = Leq\ (at\ 50\ feet) - 20 * \log_{10}\left(\frac{X}{50}\right)$$

In general, this equation shows that doubling the distance would decrease noise levels by 6 dBA while halving the distance would increase noise levels by 6 dBA.

Table I shows the nearest sensitive uses to the project site, their distance from the center of construction activities, and composite noise levels expected during construction. These noise level projections do not consider intervening topography or barriers. Construction equipment calculations are provided in Appendix C.

Table I: Potential Construction Noise Impacts at Nearest Sensitive Receptor

Receptor (Location)	Composite Noise Level (dBA L_{eq}) at 50 feet[1]	Distance (feet)	Composite Noise Level (dBA L_{eq})
Residences (East)	86	200	74
Edgemoor Hospital (South)		220	73
Residence (West)		390	68

Source: Compiled by LSA (2024).

[1] The composite construction noise level represents the grading and paving phases which are expected to result in the greatest noise level as compared to other phases.

dBA L_{eq} = average A-weighted hourly noise level

While construction noise will vary, it is expected that composite noise levels during construction at the nearest off-site sensitive residential use to the east would reach an average noise level of 74 dBA L_{eq} during daytime hours. These predicted noise levels would only occur when all construction equipment is operating simultaneously; and therefore, are assumed to be rather conservative in nature. While construction-related short-term noise levels have the potential to be higher than existing ambient noise levels in the project area under existing conditions, the noise impacts would no longer occur once project construction is completed.

As stated above, construction activities are regulated by the City's noise ordinance. The proposed project would comply with the construction hours specified in the City's Noise Ordinance, which states that construction activities are allowed between the hours of 7:00 a.m. through 7:00 p.m., Monday through Saturday, except holidays.

As it relates to off-site uses, construction-related noise levels would remain below the daytime 90 dBA L_{eq} 1-hour construction noise level criteria as established by the FTA for residential and similar sensitive uses, and therefore would be considered less than significant. Best construction practices presented at the end of this analysis shall be implemented to minimize noise impacts to surrounding receptors.

SHORT-TERM CONSTRUCTION VIBRATION IMPACTS

This construction vibration impact analysis discusses the level of human annoyance using vibration levels in VdB and assesses the potential for building damages using vibration levels in PPV (in/sec). This is because vibration levels calculated in RMS are best for characterizing human response to building vibration, while vibration level in PPV is best for characterizing potential for damage.

Table J shows the PPV and VdB values at 25 ft from the construction vibration source. As shown in Table J, bulldozers, and other heavy-tracked construction equipment (expected to be used for this project) generate approximately 0.089 PPV in/sec or 87 VdB of ground-borne vibration when measured at 25 ft, based on the FTA Manual..

Table J: Vibration Source Amplitudes for Construction Equipment

Equipment	Reference PPV/L_V at 25 ft	
	PPV (in/sec)	L_V (VdB)[1]
Pile Driver (Impact), Typical	0.644	104
Pile Driver (Sonic), Typical	0.170	93
Vibratory Roller	0.210	94
Hoe Ram	0.089	87
Large Bulldozer[2]	**0.089**	**87**
Caisson Drilling	0.089	87
Loaded Trucks[2]	**0.076**	**86**
Jackhammer	0.035	79
Small Bulldozer	0.003	58

Source: *Transit Noise and Vibration Impact Assessment Manual* (FTA 2018).
[1] RMS vibration velocity in decibels (VdB) is 1 µin/sec.
[2] Equipment shown in **bold** is expected to be used on site.
µin/sec = microinches per second
ft = foot/feet
FTA = Federal Transit Administration
in/sec = inch/inches per second
L_V = velocity in decibels
PPV = peak particle velocity
RMS = root-mean-square
VdB = vibration velocity decibels

The formulae for vibration transmission are provided below and Tables K and L below provide a summary of off-site construction vibration levels.

$$L_vdB\ (D) = L_vdB\ (25\ ft) - 30\ Log\ (D/25)$$

$$PPV_{equip} = PPV_{ref} \times (25/D)^{1.5}$$

As shown in Table E above, the threshold at which vibration levels would result in annoyance would be 78 VdB for daytime residential uses and 90 VdB for workshop type uses. As shown in Table F, the FTA guidelines indicate that for a non-engineered timber and masonry building, the construction vibration damage criterion is 0.2 in/sec in PPV.

Table K: Potential Construction Vibration Annoyance Analysis

Receptor (Location)	Reference Vibration Level (VdB) at 25 feet[1]	Distance (feet)[2]	Vibration Level (VdB)
Automotive Repair Shop (North)	87	175	62
Residences (East)		200	60
Edgemoor Hospital (South)		220	59
Residence (West)		390	51

Source: Compiled by LSA (2024).
1 The reference vibration level is associated with a large bulldozer which is expected to be representative of the heavy equipment used during construction.
2 The reference distance is associated with the average condition, identified by the distance from the center of construction activities to surrounding uses
ft = foot/feet
VdB = vibration velocity decibels

Table L: Potential Construction Vibration Damage Analysis

Receptor (Location)	Reference Vibration Level (PPV) at 25 feet[1]	Distance (feet)[2]	Vibration Level (PPV)
Automotive Repair Shop (North)	0.089	15	0.191
Residence – The Addison (East)		45	0.037
Residence – 10264 Palm Glen Drive (East)		15	0.191
Edgemoor Hospital (South)		50	0.031
Residence (West)		220	0.003

Source: Compiled by LSA (2024).
1 The reference vibration level is associated with a large bulldozer which is expected to be representative of the heavy equipment used during construction.
2 The reference distance is associated with the peak condition, identified by the distance from the perimeter of construction activities to surrounding structures
ft = foot/feet
in/sec = inch/inches per second
PPV = peak particle velocity

In order to assess potential vibration annoyance impacts, activities occurring at the center of the proposed project site, representing an average distance, were analyzed. Based on the information provided in Table K, vibration levels are expected to approach 60 VdB at the closest residential uses located to the east of the project site and 62 VdB at the closest repair shop located immediately to the north of the project site which is below the 78 VdB and 90 VdB threshold for annoyance for residential and workshop uses, respectively.

In order to assess potential vibration damage impacts, assuming the construction equipment would be used at or near the project setback line, the distance from edge of construction activities to the nearest off-site building façade was used. Additionally, it is assumed that heavy construction equipment would operate approximately 10 feet from the proposed project boundary which is 5 feet from the nearest off-site structures. Based on the information provide in Table L, vibration levels are expected to approach 0.191 in/sec at the nearest surrounding structures, approximately 15 feet from construction operations, and would be below the 0.2 PPV in/sec damage threshold.

Because construction activities are regulated by the City's Municipal Code which states temporary construction, maintenance, or demolition activities are allowed between the hours of 7:00 a.m. through 7:00 p.m., Monday through Saturday, except holidays, vibration impacts would not occur during the more sensitive nighttime hours.

Construction Best Business Practices:the project contractor implement the following measures during construction of the project:

- Equip all construction equipment, fixed or mobile, with properly operating and maintained mufflers consistent with manufacturers' standards.
- Place all stationary construction equipment so that emitted noise is directed away from sensitive receptors nearest the active project site.
- Locate equipment staging in areas that would create the greatest possible distance between construction-related noise sources and noise-sensitive receptors nearest the active project site during all project construction.
- Ensure that all construction related activities are restricted to the hours 7:00 a.m. through 7:00 p.m., Monday through Saturday, except holidays.
- Designate a "disturbance coordinator" at the City of Santee who would be responsible for responding to any local complaints about construction noise. The disturbance coordinator would determine the cause of the noise complaint (e.g., starting too early, bad muffler) and would determine and implement reasonable measures warranted to correct the problem.

LONG-TERM OFF-SITE TRAFFIC NOISE IMPACTS

In order to assess the potential traffic impacts related to the proposed project, LSA prepared the *Traffic Analysis for Park Center Apartments Project in Santee, California*. Based on the analysis results, it was determined that a net additional 421 average daily trips (ADT) would be generated by the proposed project. The Existing (2013) traffic volume on the adjacent segment of Park Center Drive is 2,100 (City of Santee Mobility Element). Using the equation below, with an increase of 421 ADT, the noise level increase would be 0.79 dBA CNEL.

$$\text{Change in CNEL} = 10 \log_{10} [V_{e+p}/V_{existing}]$$

Where: $V_{existing}$ = the existing daily volume
V_{e+p} = existing daily volumes plus project
Change in CNEL = the increase in noise level due to the project

A noise level increase of less than 1 dBA would not be perceptible to the human ear; therefore, the traffic noise increase along Park Center Drive resulting from the project would be less than significant.

LONG-TERM TRAFFIC-RELATED VIBRATION IMPACTS

The proposed project would not generate vibration levels related to on-site operations. In addition, vibration levels generated from project-related traffic on the adjacent roadways are unusual for on-road vehicles because the rubber tires and suspension systems of on-road vehicles provide vibration isolation. Vibration levels generated from project-related traffic on the adjacent roadways would be less than significant and no mitigation measures are required.

BEST CONSTRUCTION PRACTICES

In addition to compliance with the City's Municipal Code allowed hours of construction of 7:00 a.m. to 7:00 p.m., Monday through Saturday, excluding holidays, the following recommendation would reduce construction noise to the extent feasible.

- The project construction contractor should equip all construction equipment, fixed or mobile, with properly operating and maintained noise mufflers consistent with manufacturer's standards.

- The project construction contractor should locate staging areas away from off-site sensitive uses during the later phases of project development.

- The project construction contractor should place all stationary construction equipment so that emitted noise is directed away from sensitive receptors nearest the project site whenever feasible.

LAND USE COMPATIBILITY

The sources of noise in the project vicinity are the existing residential uses to the east (The Addison Apartments) and the auto repair shop (The Phantastic) to the north. For the portion of the project site closer to the existing autobody shop, the dominant source of noise is operations associated with auto-repair activities. During non-business hours of the auto body shop, the eastern portion of the project site is dominated by activities occurring at the adjacent apartment building. Due to the low volume on Park Center Drive, noise measurement data indicated that it is not a major contributor to the noise environment.

EXTERIOR NOISE ASSESSMENT

As shown in Table G, the existing measured noise levels at the project site range from approximately 57.0 dBA L_{dn} to 57.3 dBA L_{dn}. When propagating the existing noise levels to the western portion of the project site, noise levels would approach 65 dBA L_{dn}. As compared to the information in Table D of the City's Noise Element section of this report, an exterior noise level of up to 65 dBA L_{dn} would be considered "normally acceptable" for community noise exposure and is the exterior noise level standard defined in Section 8.1 of the City's Noise Element. Additionally, hourly exterior noise levels on the northern portion of the project site approached 62.1 dBA L_{eq} while hourly exterior noise levels on the eastern portion of the project site approached 61.4 dBA L_{eq}.

Based on the project site plan, the common open space area is considered as an exterior sensitive use, with estimated noise levels approaching 57.5 dBA L_{dn} without accounting for shielding provided by the proposed buildings. This level is below the City's 65 dBA L_{dn} exterior noise level standard. Therefore, no additional mitigation would be required.

INTERIOR NOISE ASSESSMENT

As discussed above, the City's Noise Element sets an interior noise level standard of 45 dBA L_{dn} or less for all noise-sensitive rooms. Based on the exterior noise levels at the proposed residences closest to the apartment building to the east (The Addison) and the auto body shop to the north (Phantastic Auto Repair) approaching 57.3 dBA L_{dn}, a minimum noise reduction of 12.3 dBA would be required. Because the existing environment is dominated by fluctuating, non-transportation related sources, the hourly noise levels approaching 62.1 dBA L_{eq} would require a 17.1 dBA reduction to achieve a level of 45 dBA. At the western portion of the project site, noise levels are expected to approach 65 dBA L_{dn} and would require a 20 dBA reduction to achieve a level of 45 dBA.

Based on reference information from transmission loss test reports for various Milgard windows (Milgard 2008), standard building construction along with standard windows, typically in the STC 25-28 range, a reduction of 25 dBA or more would be achieved. With a reduction of 25 dBA or more, interior noise levels would remain below the City's interior noise level standard of 45 dBA L_{dn}.

Once final plans are available to detail the exterior wall construction and a window manufacturer has been chosen, a Final Acoustical Memorandum would be required to confirm the reduction capability of the exterior façades and to identify any specific upgrades necessary to achieve an interior noise level of 45 dBA L_{dn} or below.

REFERENCES

City of Santee. 2003. *General Plan Noise Element*. August 27.

City of Santee. 2022. Municipal Code. Website: https://library.qcode.us/lib/santee_ca/pub/municipal_code (accessed June 2024).

City of Santee. 2017. Mobility Element. October 25.

County of San Diego. 2011. San Diego County General Plan Update Program EIR. August.

Federal Highway Administration (FHWA). 2006. *Roadway Construction Noise Model User's Guide.* January. Washington, D.C. Website: www.fhwa.dot.gov/environment/noise/construction_noise/rcnm/rcnm.pdf (accessed August 2024).

Federal Transit Administration (FTA). 2018. *Transit Noise and Vibration Impact Assessment Manual*. Office of Planning and Environment. Report No. 0123. September.

Gillespie Field Airport Layout Plan Update & Narrative Report. 2004

Harris, Cyril M., editor. 1991. *Handbook of Acoustical Measurements and Noise Control*. Third Edition.

LSA. 2023. *Traffic Analysis for Park Center Apartments Project in Santee, California.* January.

Milgard. 2008. Various Transmission Loss Reports.

SDCRAA (San Diego County Regional Airport Authority). 2010. Gillespie Field Airport Land Use Compatibility Plan.

State of California. 2020. *2019 California Green Building Standards Code.*

United States Environmental Protection Agency (EPA). 1978. *Protective Noise Levels, Condensed Version of EPA Levels Document*, EPA 550/9-79-100. November.

APPENDIX A

NOISE MONITORING DATA

Noise Measurement Survey – 24 HR

Project Number: WMK2201
Project Name: Santee Apartments

Test Personnel: Kevin Nguyendo
Equipment: Spark 706RC (SN:18907)

Site Number: LT-1 Date: 4/13/22

Time: From 4:00 p.m. To 4:00 p.m.

Site Location: Near automotive shop directly north of automotive service shop. Located on a white chain-link fence next to a tree that borders the project site and the automotive repair shop.

Primary Noise Sources: Operational noise from automotive repair shop.

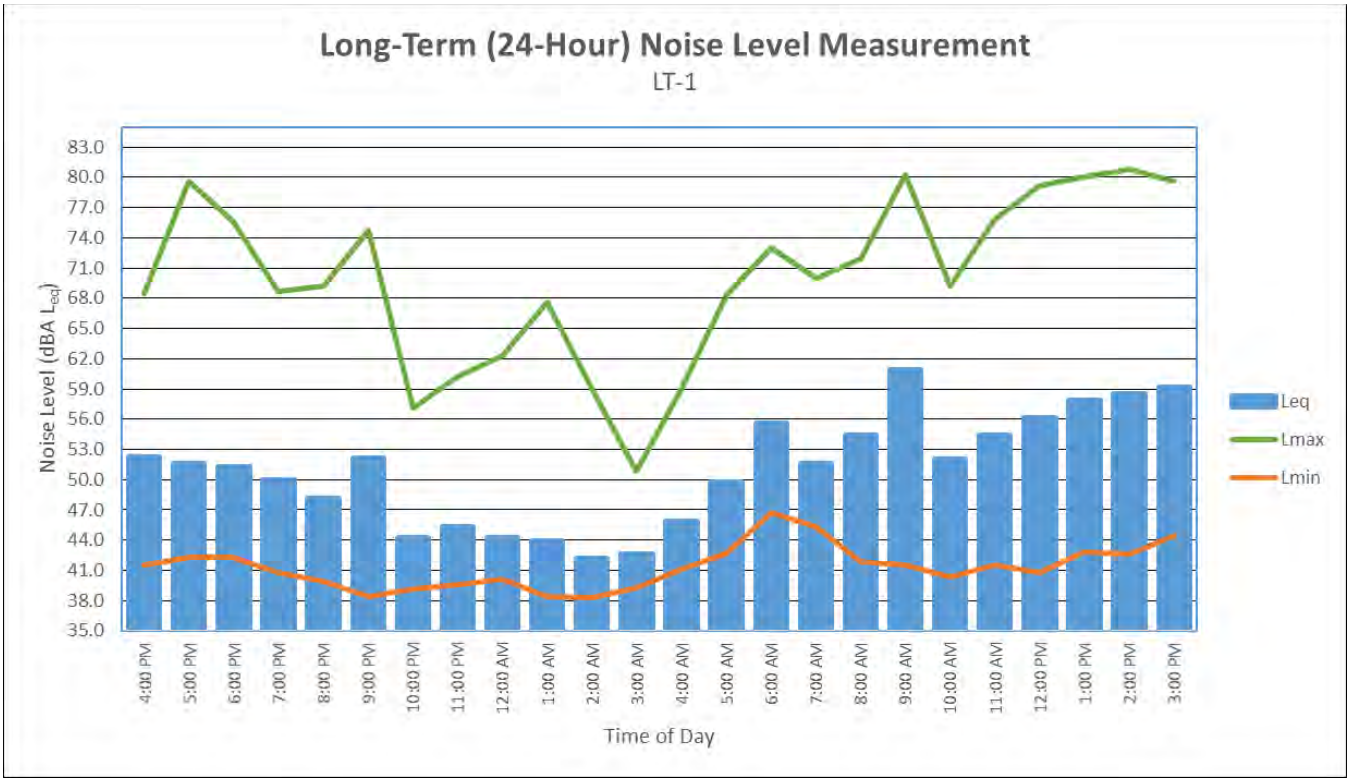
Comments: There is a 5 foot tall chain-link fence that borders the project site to the north.

Photo:

Long-Term (24-Hour) Noise Level Measurement Results at LT-1

Start Time	Date	Noise Level (dBA)		
		L_{eq}	L_{max}	L_{min}
4:00 PM	4/13/22	52.2	68.5	41.5
5:00 PM	4/13/22	51.5	79.6	42.3
6:00 PM	4/13/22	51.3	75.6	42.3
7:00 PM	4/13/22	50.0	68.7	40.8
8:00 PM	4/13/22	48.1	69.2	39.9
9:00 PM	4/13/22	52.2	74.7	38.4
10:00 PM	4/13/22	44.2	57.1	39.1
11:00 PM	4/13/22	45.4	60.2	39.6
12:00 AM	4/14/22	44.2	62.3	40.1
1:00 AM	4/14/22	43.9	67.6	38.4
2:00 AM	4/14/22	42.2	59.1	38.3
3:00 AM	4/14/22	42.7	50.8	39.3
4:00 AM	4/14/22	45.9	58.9	41.1
5:00 AM	4/14/22	49.8	68.4	42.7
6:00 AM	4/14/22	55.5	73.0	46.7
7:00 AM	4/14/22	51.6	70.0	45.3
8:00 AM	4/14/22	54.4	71.9	41.9
9:00 AM	4/14/22	60.9	80.3	41.5
10:00 AM	4/14/22	52.0	69.2	40.3
11:00 AM	4/14/22	54.4	75.8	41.5
12:00 PM	4/14/22	56.1	79.2	40.8
1:00 PM	4/14/22	57.9	80.0	42.8
2:00 PM	4/14/22	58.5	80.8	42.6
3:00 PM	4/14/22	59.1	79.6	44.5

Source: Compiled by LSA Associates, Inc. (2022).
dBA = A-weighted decibel
L_{eq} = equivalent continuous sound level
L_{max} = maximum instantaneous noise level
L_{min} = minimum measured sound level


Long-Term (24-Hour) Noise Level Measurement
LT-1
Noise Level (dBA Leq)
83.0
80.0
77.0
74.0
71.0
68.0
65.0
62.0
59.0
56.0
53.0
50.0
47.0
44.0
41.0
38.0
35.0
4:00 PM
5:00 PM
6:00 PM
7:00 PM
8:00 PM
9:00 PM
10:00 PM
11:00 PM
12:00 AM
1:00 AM
2:00 AM
3:00 AM
4:00 AM
5:00 AM
6:00 AM
7:00 AM
8:00 AM
9:00 AM
10:00 AM
11:00 AM
12:00 PM
1:00 PM
2:00 PM
3:00 PM
Time of Day
Leq
Lmax
Lmin

Noise Measurement Survey – 24 HR

Project Number: WMK2201
Project Name: Santee Apartments

Test Personnel: Kevin Nguyendo
Equipment: Spark 706RC (SN:18908)

Site Number: LT-2 Date: 4/13/22

Time: From 4:00 p.m. To 4:00 p.m.

Site Location: Where the white fence and chain link fence meet located on the eastern border of the project site.

Primary Noise Sources: Faint operational noise from the hotel.

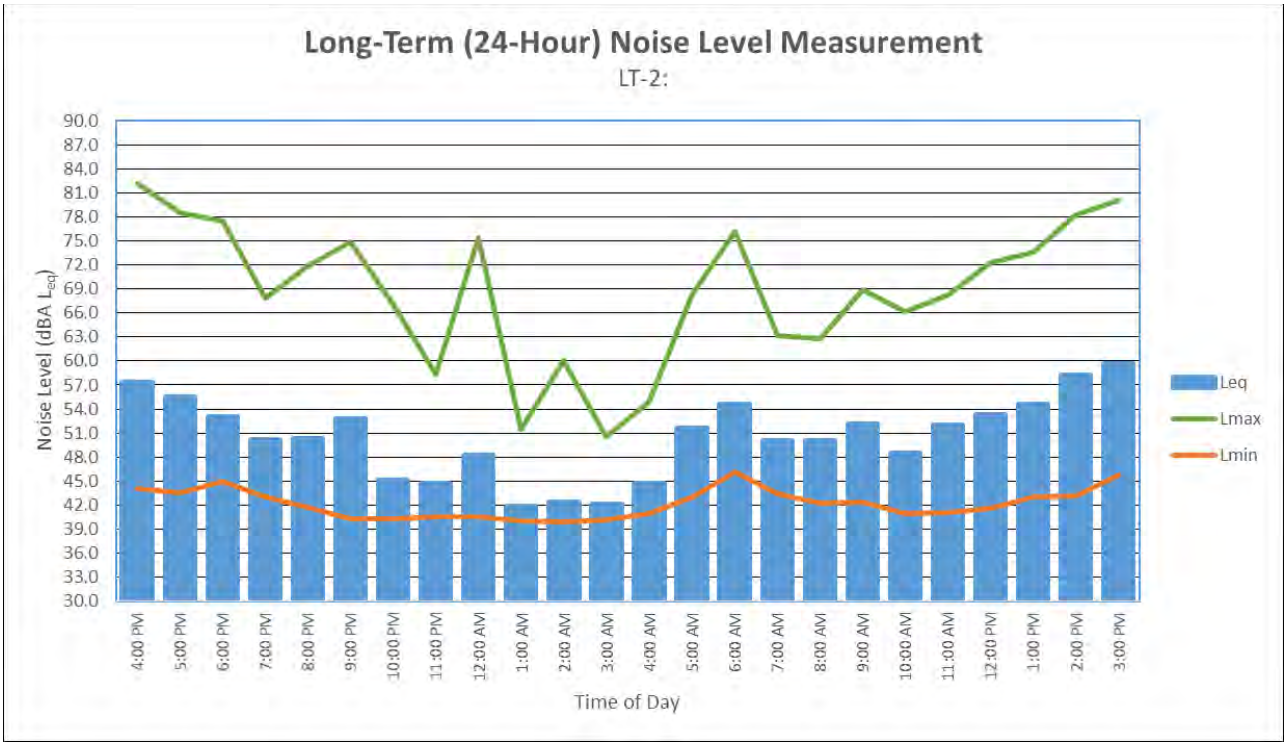
Comments: There is a 5 feet and 3 inch plastic fence and chain link fence.

Photo:

Long-Term (24-Hour) Noise Level Measurement Results at LT-1

Start Time	Date	Noise Level (dBA)		
		L_{eq}	L_{max}	L_{min}
4:00 PM	4/13/22	57.3	82.1	44.1
5:00 PM	4/13/22	55.5	78.5	43.6
6:00 PM	4/13/22	53.1	77.5	45.0
7:00 PM	4/13/22	50.2	67.8	43.0
8:00 PM	4/13/22	50.3	71.9	41.7
9:00 PM	4/13/22	52.8	74.9	40.3
10:00 PM	4/13/22	45.1	67.1	40.3
11:00 PM	4/13/22	44.7	58.3	40.5
12:00 AM	4/14/22	48.2	75.4	40.6
1:00 AM	4/14/22	41.9	51.5	40.0
2:00 AM	4/14/22	42.4	60.1	39.9
3:00 AM	4/14/22	42.1	50.6	40.2
4:00 AM	4/14/22	44.7	54.8	41.0
5:00 AM	4/14/22	51.6	68.4	43.0
6:00 AM	4/14/22	54.6	76.2	46.1
7:00 AM	4/14/22	50.0	63.2	43.4
8:00 AM	4/14/22	50.0	62.8	42.3
9:00 AM	4/14/22	52.2	68.9	42.4
10:00 AM	4/14/22	48.5	66.2	40.9
11:00 AM	4/14/22	52.0	68.3	41.1
12:00 PM	4/14/22	53.3	72.2	41.6
1:00 PM	4/14/22	54.6	73.6	43.0
2:00 PM	4/14/22	58.3	78.2	43.1
3:00 PM	4/14/22	59.7	80.1	45.7

Source: Compiled by LSA Associates, Inc. (2022).
dBA = A-weighted decibel
L_{eq} = equivalent continuous sound level
L_{max} = maximum instantaneous noise level
L_{min} = minimum measured sound level


Long-Term (24-Hour) Noise Level Measurement
LT-2:
Noise Level (dBA Leq)
90.0
87.0
84.0
81.0
78.0
75.0
72.0
69.0
66.0
63.0
60.0
57.0
54.0
51.0
48.0
45.0
42.0
39.0
36.0
33.0
30.0
4:00 PM
5:00 PM
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8:00 PM
9:00 PM
10:00 PM
11:00 PM
12:00 AM
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2:00 AM
3:00 AM
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6:00 AM
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11:00 AM
12:00 PM
1:00 PM
2:00 PM
3:00 PM
Time of Day
Leq
Lmax
Lmin

APPENDIX B

CONSTRUCTION NOISE LEVEL CALCULATIONS

Construction Calculations

Phase: Site Preparation

Equipment	Quantity	Reference (dBA) 50 ft Lmax	Usage Factor[1]	Distance to Receptor (ft)	Ground Effects	Noise Level (dBA) Lmax	Noise Level (dBA) Leq
Grader	1	85	40	50	0.5	85	81
Scraper	1	84	40	50	0.5	84	80
Tractor	1	84	40	50	0.5	84	80
					Combined at 50 feet	**89**	**85**
					Combined at Receptor 200 feet	**77**	**73**
					Combined at Receptor 220 feet	**76**	**72**
					Combined at Receptor 390 feet	**71**	**67**

Phase: Grading

Equipment	Quantity	Reference (dBA) 50 ft Lmax	Usage Factor[1]	Distance to Receptor (ft)	Ground Effects	Noise Level (dBA) Lmax	Noise Level (dBA) Leq
Grader	1	85	40	50	0.5	85	81
Dozer	1	82	40	50	0.5	82	78
Tractor	2	84	40	50	0.5	84	83
					Combined at 50 feet	**89**	**86**
					Combined at Receptor 200 feet	**77**	**74**
					Combined at Receptor 220 feet	**76**	**73**
					Combined at Receptor 390 feet	**71**	**68**

Phase:Building Construstion

Equipment	Quantity	Reference (dBA) 50 ft Lmax	Usage Factor[1]	Distance to Receptor (ft)	Ground Effects	Noise Level (dBA) Lmax	Noise Level (dBA) Leq
Crane	1	81	16	50	0.5	81	73
Man Lift	2	75	20	50	0.5	75	71
Generator	1	81	50	50	0.5	81	78
Tractor	1	84	40	50	0.5	84	80
Welder / Torch	3	74	40	50	0.5	74	75
					Combined at 50 feet	**82**	**75**
					Combined at Receptor 200 feet	**70**	**63**

Phase:Paving

Equipment	Quantity	Reference (dBA) 50 ft Lmax	Usage Factor[1]	Distance to Receptor (ft)	Ground Effects	Noise Level (dBA) Lmax	Noise Level (dBA) Leq
Concrete Mixer Truck	1	79	40	50	0.5	79	75
Paver	1	77	50	50	0.5	77	74
All Other Equipment > 5 HP	1	85	50	50	0.5	85	82
Roller	2	80	20	50	0.5	80	76
Tractor	1	84	40	50	0.5	84	80
					Combined at 50 feet	**87**	**83**
					Combined at Receptor 200 feet	**75**	**71**

Phase:Architectural Coating

Equipment	Quantity	Reference (dBA) 50 ft Lmax	Usage Factor[1]	Distance to Receptor (ft)	Ground Effects	Noise Level (dBA) Lmax	Noise Level (dBA) Leq
Compressor (air)	1	78	40	50	0.5	78	74
					Combined at 50 feet	**78**	**74**
					Combined at Receptor 200 feet	**66**	**62**

Sources: RCNM

[1]- Percentage of time that a piece of equipment is operating at full power.
dBA – A-weighted Decibels
Lmax- Maximum Level
Leq- Equivalent Level

APPENDIX D

AIR QUALITY AND GREENHOUSE GAS IMPACT ANALYSIS

AIR QUALITY AND GREENHOUSE GAS IMPACT ANALYSIS

PARK CENTER TOWNHOMES PROJECT

SANTEE, CALIFORNIA

LSA

September 2024

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AIR QUALITY AND GREENHOUSE GAS IMPACT ANALYSIS

PARK CENTER TOWNHOMES PROJECT

SANTEE, CALIFORNIA

Submitted to:

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Project No. 20241698

LSA

September 2024

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LIST OF ABBREVIATIONS AND ACRONYMS

°C	degrees Celsius
°F	degrees Fahrenheit
µg/m^3	micrograms per cubic meter
AAQS	ambient air quality standards
AB	Assembly Bill
ADT	average daily trips
APS	Alternative Planning Strategy
AQIA	air quality impact analysis
BAU	business-as-usual
CAA	Federal Clean Air Act
CALGreen Code	California Green Building Standards Code
CALRecycle	California Department of Resources Recycling and Recovery
CalEEMod	California Emissions Estimator Model
CalEPA	California Environmental Protection Agency
CARB	California Air Resources Board
CAT	Climate Action Team
CCAA	California Clean Air Act
CEQA	California Environmental Quality Act
CH_4	methane
City	City of Santee
CO	carbon monoxide
CO_2	carbon dioxide
CO_2e	carbon dioxide equivalent
County	County of San Diego
DPM	diesel particulate matter
EO	Executive Order
EV	electric vehicle
GCC	global climate change
GHG	greenhouse gas

GWP	Global Warming Potential
HFC	hydrofluorocarbons
IPCC	Intergovernmental Panel on Climate Change
lbs	pounds
LCFS	Low Carbon Fuel Standard
mg/m^3	milligrams per cubic meter
MPO	Metropolitan Planning Organizations
MT	metric tons
MTT	million metric tons
N_2O	nitrous oxide
NAAQS	National Ambient Air Quality Standards
NO_x	nitrogen oxides
NO_2	nitrogen dioxide
O_3	ozone
OPR	Governor's Office of Planning and Research
Pb	lead
PFC	perfluorocarbons
ppb	parts per billion
ppm	parts per million
PM	particulate matter
PM_{10}	particulate matter less than 10 microns in size
$PM_{2.5}$	particulate matter less than 2.5 microns in size
project	Park Center Apartments Project
RAQS	San Diego Regional Air Quality Strategy
ROC	reactive organic compounds
ROG	reactive organic gases
RPS	Renewables Portfolio Standard
RTP	Regional Transportation Plan
SANDAG	San Diego Association of Governments
SB	Senate Bill
SCS	Sustainable Community Strategies

SDAB	San Diego Air Basin
SDAPCD	San Diego Air Pollution Control District
SF_6	sulfur hexafluoride
SIP	State Implementation Plans
SO_2	sulfur dioxide
SO_x	sulfur oxides
SP	service population
SSP	Sustainable Santee Plan
State	State of California
TAC	toxic air contaminants
UNFCCC	United Nations Framework Convention on Climate Change
USEPA	United States Environmental Protection Agency
VMT	vehicle miles traveled
VOC	volatile organic compounds

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INTRODUCTION

This Air Quality and Greenhouse Gas Impact Analysis has been prepared to evaluate the potential air quality and greenhouse gas (GHG) impacts for the proposed Park Center Townhomes Project (project) in Santee, California. This analysis follows the guidelines identified by the San Diego County Air Pollution Control District (SDAPCD).[1] Santee is within the San Diego Air Basin (SDAB), the boundaries of which encompass the entirety of San Diego County. The SDAB is managed by the SDAPCD. This report provides a project-specific air quality and GHG impact analysis by examining the impacts of the proposed uses on adjacent sensitive uses as well as the impacts of the proposed uses on the project site.

PROJECT DESCRIPTION

The proposed project site is located at 701 Park Center Drive, southwest of the intersection of Mast Boulevard and Magnolia Avenue within the Town Center Specific Plan (Assessor's Parcel Numbers 381-032-07-00 and 381-032-07-00) in Santee, California. The site is zoned as R14 – Medium-High Density Residential (14–22 dwelling units per gross acre). The regional vicinity and project location are shown in Figure 1.

The proposed project would construct a total of 53 three-story multifamily residential units within 10 buildings, including 106 enclosed garage spaces and 13 guest parking spaces, and 8,000 square feet of open common space centrally located at grade level on a 2.45-acre site. In addition, the proposed project would include EV parking spaces consistent with CalGreen requirements for multifamily housing. Figure 2 illustrates the site plan.

Construction of the proposed project is anticipated to begin in June 2025 and end in December 2026. During construction, 6,329 cubic yards of soil would be imported. Once operational, the proposed project would generate 432 average daily trips (ADT).[2] Additionally, residents and guests would have access to public transportation nearby as three bus stops are located within 0.5 miles of the proposed project.

EXISTING LAND USES IN THE PROJECT AREA

The project site is surrounded primarily by residential and commercial uses. The areas adjacent to the project site include the following uses:

- **North:** Existing Phantastic Auto Repair shop;
- **East:** Existing The Addison apartment complex and a single-family residence at 10264 Palm Glen Drive;

[1] San Diego County Air Pollution Control District (SDAPCD). Rule & Regulation. Website: www.sdapcd.org/content/sdc/apcd/en/Rule_Development/Rules_and_Regulations.html (accessed June 2024).

[2] LSA. 2024. *CEQA Transportation Analysis Screening Form*. June.

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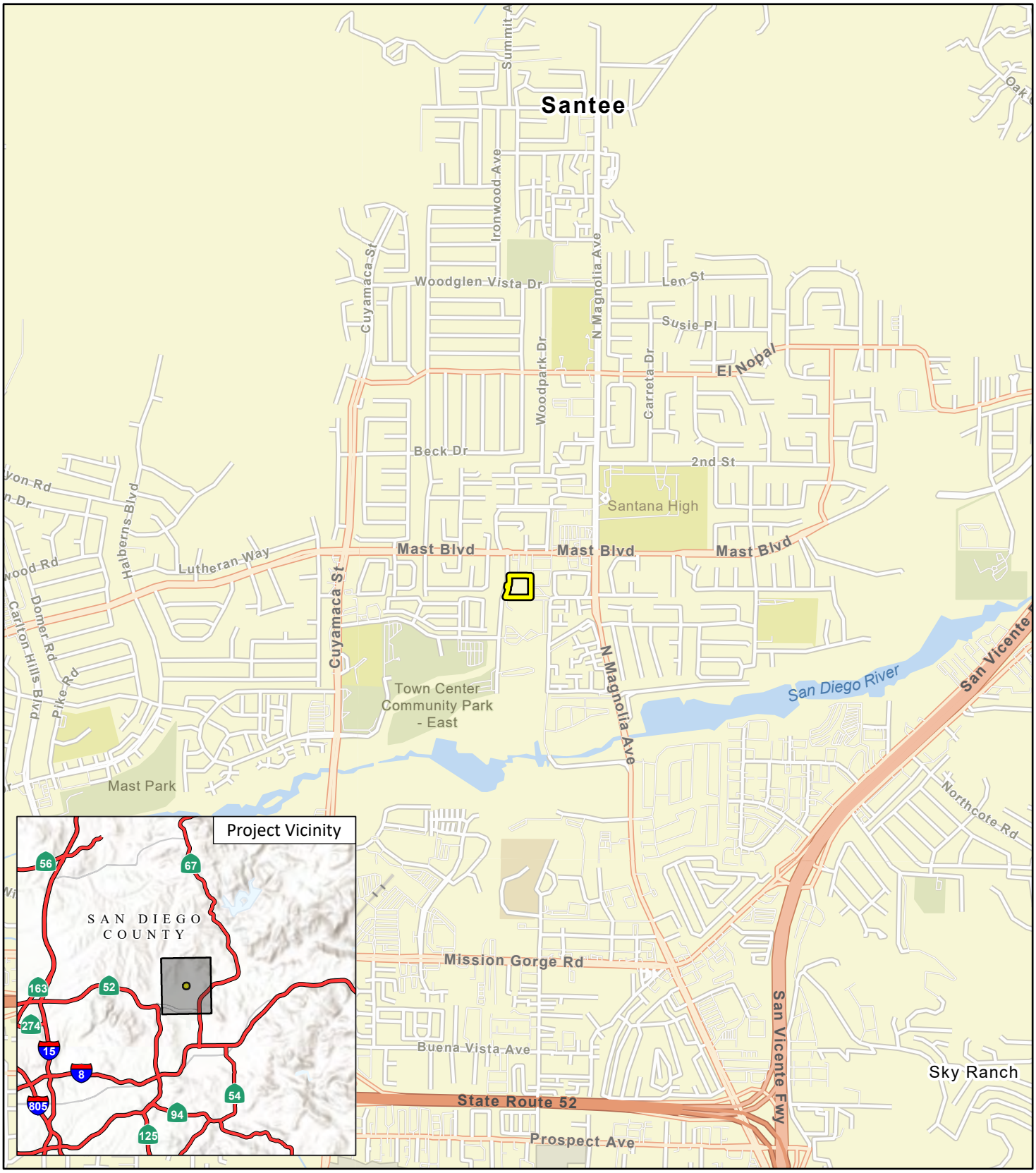

LSA

Project Location

FIGURE 1

N

0 1000 2000

FEET

SOURCE: Esri Street Map 2024

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Park Center Townhomes Project

Project Location

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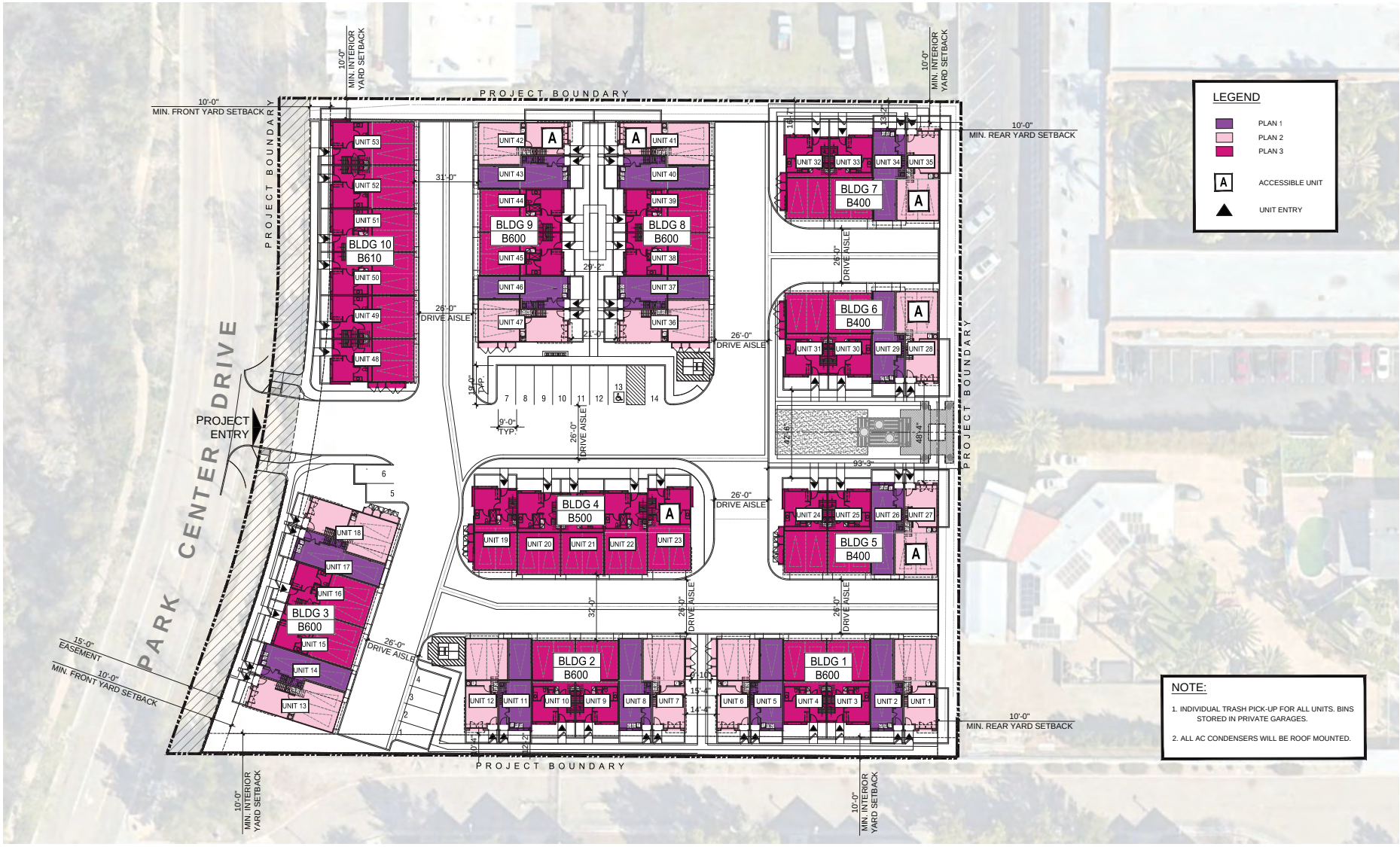

LSA

FIGURE 2

0 40 80

FEET

SOURCE: KTGY

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Park Center Townhomes Project

Site Plan

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- **South:** Existing County of San Diego Health and Human Services Agency Edgemoor DPSNF (Edgemoor Hospital); and

- **West:** Existing single-family residences opposite Park Center Drive.

A summary of analysis distances relative to sensitive receptors for air quality is provided in Table A.

Table A: Summary of Analysis Distances by Impact Category

Activity	Nearest Sensitive Receptor	Points of Analysis	Distance (feet)
Construction[1]	Single-family home at 10264 Palm Glen Drive	Perimeter of construction activities to centroid of nearest sensitive receptor	30
Operations	Single-family home at 10264 Palm Glen Drive	Emissions sources on-site generalized at the centroid of the project site to centroid of nearest sensitive receptor	200

1. Distance for construction air quality impact potential includes the assumption that heavy construction equipment would operate adjacent to the proposed project boundary, which is 30 feet from the nearest off-site structures where a person would live.

AIR QUALITY

BACKGROUND

Air Pollutants and Heath Effects

Both State and federal governments have established health-based ambient air quality standards (AAQS) for six criteria air pollutants: carbon monoxide (CO), ozone (O_3), nitrogen dioxide (NO_2), sulfur dioxide (SO_2), lead (Pb), and suspended particulate matter (PM). In addition, the State has set standards for sulfates, hydrogen sulfide, vinyl chloride, and visibility-reducing particles. These standards are designed to protect the health and welfare of the populace with a reasonable margin of safety. Long-term exposure to elevated levels of criteria pollutants may result in adverse health effects. However, emission thresholds established by an air quality district are used to manage total regional emissions within an air basin based on the air basin's attainment status for criteria pollutants. These emission thresholds were established for individual projects that would contribute to regional emissions and pollutant concentrations and could adversely affect or delay the projected attainment target year for certain criteria pollutants.

Because of the conservative nature of the thresholds and the basin-wide context of individual project emissions, there is no known direct correlation between a single project and localized air quality-related health effects. One individual project that generates emissions exceeding a threshold does not necessarily result in adverse health effects for residents in the project vicinity. This condition is especially true when the criteria pollutants exceeding thresholds are those with regional effects, such as O_3 precursors like nitrogen oxides (NO_x) and volatile organic compounds (VOCs).

Occupants of facilities such as schools, day-care centers, parks and playgrounds, hospitals, and nursing and convalescent homes are considered to be more sensitive than the general public to air pollutants because these population groups have increased susceptibility to respiratory disease. Persons engaged in strenuous work or exercise also have increased sensitivity to poor air quality. Residential areas are considered more sensitive to air quality conditions, compared to commercial and industrial areas, because people generally spend longer periods of time at their residences, with greater associated exposure to ambient air quality conditions. Recreational uses are also considered sensitive compared to commercial and industrial uses due to greater exposure to ambient air quality conditions associated with exercise.

Ozone

Rather than being directly emitted, O_3 (smog) is formed by photochemical reactions between NO_X and VOCs. O_3 is a pungent, colorless gas. Elevated O_3 concentrations result in reduced lung function, particularly during vigorous physical activity. This health problem is particularly acute in sensitive receptors such as the sick, the elderly, and young children. O_3 levels peak during the summer and early fall months.

Carbon Monoxide

CO is formed by the incomplete combustion of fossil fuels, almost entirely from automobiles. It is a colorless, odorless gas that can cause dizziness, fatigue, and impairments to central nervous system

functions. CO passes through the lungs into the bloodstream, where it interferes with the transfer of oxygen to body tissues.

Particulate Matter

PM is the term used for a mixture of solid particles and liquid droplets found in the air. Coarse particles are those that are 10 microns or less in diameter (PM_{10}). Fine, suspended PM with an aerodynamic diameter of 2.5 microns or less ($PM_{2.5}$), is not readily filtered out by the lungs. Nitrates, sulfates, dust, and combustion particulates are major components of PM_{10} and $PM_{2.5}$. These small particles can be directly emitted into the atmosphere as byproducts of fuel combustion; through abrasion, such as tire or brake lining wear; or through fugitive dust (wind or mechanical erosion of soil). They can also be formed in the atmosphere through chemical reactions. Particulates may transport carcinogens and other toxic compounds that adhere to the particle surfaces and can enter the human body through the lungs.

Nitrogen Dioxide

NO_2 is a reddish-brown gas that is a byproduct of combustion processes. Automobiles and industrial operations are the main sources of NO_2. Aside from its contribution to O_3 formation, NO_2 also contributes to other pollution problems, including a high concentration of $PM_{2.5}$, poor visibility, and acid deposition. NO_2 may be visible as a coloring component on high pollution days, especially in conjunction with high O_3 levels. NO_2 decreases lung function and may reduce resistance to infection.

Sulfur Dioxide

SO_2 is a colorless, irritating gas formed primarily from incomplete combustion of fuels containing sulfur. Industrial facilities also contribute to gaseous SO_2 levels in the region. SO_2 irritates the respiratory tract, can injure lung tissue when combined with $PM_{2.5}$, and reduces visibility and the level of sunlight.

Lead

Leaded gasoline (phased out in the United States beginning in 1973), paint (on older houses and cars), smelters (metal refineries), and the manufacture of lead storage batteries have been the primary sources of lead released into the atmosphere. Lead has multiple adverse neurotoxic health effects, and children are at special risk. Some lead-containing chemicals cause cancer in animals. Lead levels in the air have decreased substantially since leaded gasoline was eliminated. Ambient lead concentrations are only monitored on an as-warranted, site-specific basis in California. On October 15, 2008, the United States Environmental Protection Agency (USEPA) strengthened the National Ambient Air Quality Standards (NAAQS) for lead by lowering it from 1.5 to 0.15 micrograms per cubic meter ($\mu g/m^3$). The USEPA revised the monitoring requirements for lead in December 2010. These requirements focus on airports and large urban areas, resulting in an increase in 76 monitors nationally.

Volatile Organic Compounds

VOCs (also known as reactive organic gases [ROGs] and reactive organic compounds [ROCs]) are formed from the combustion of fuels and the evaporation of organic solvents. VOCs are not defined as criteria pollutants. However, because VOCs accumulate in the atmosphere more quickly during

the winter, when sunlight is limited and photochemical reactions are slower, they are a prime component of the photochemical smog reaction. There are no attainment designations for VOCs.

Toxic Air Contaminants

In addition to the criteria pollutants discussed above, toxic air contaminants (TACs) are another group of pollutants of concern. TACs are injurious in small quantities and are regulated by the USEPA and the California Air Resources Board (CARB). Some examples of TACs include benzene, butadiene, formaldehyde, and hydrogen sulfide. The identification, regulation, and monitoring of TACs is relatively recent compared to that for criteria pollutants.

TACs do not have ambient air quality standards but are regulated by the USEPA, CARB, and the SDAPCD. In 1998, CARB identified PM from diesel-fueled engines as a TAC. CARB has completed a risk management process that identified potential cancer risks for a range of activities using diesel-fueled engines.[3] High-volume freeways, stationary diesel engines, and facilities attracting heavy and constant diesel vehicle traffic (e.g., distribution centers and truck stops) were identified as posing the highest risk to adjacent receptors. Other facilities associated with increased risk include warehouse distribution centers, large retail or industrial facilities, high-volume transit centers, and schools with a high volume of bus traffic. Health risks from TACs are a function of both concentration and duration of exposure.

Unlike TACs emitted from industrial and other stationary sources noted above, most diesel particulate matter (DPM) is emitted from mobile sources—primarily "off-road" sources such as construction and mining equipment, agricultural equipment, and truck-mounted refrigeration units, as well as "on-road" sources such as trucks and buses traveling on freeways and local roadways.

Although not specifically monitored, recent studies indicate that exposure to DPM may contribute significantly to a cancer risk (a risk of approximately 500 to 700 in one million) that is greater than all other measured TACs combined.[4] The technology for reducing DPM emissions from heavy-duty trucks is well established, and both State and federal agencies are moving aggressively to regulate engines and emission control systems to reduce and remediate diesel emissions. CARB anticipates that by 2020, average statewide DPM concentrations will decrease by 85 percent from levels in 2000 with full implementation of the CARB Diesel Risk Reduction Plan, meaning that the statewide health risk from DPM is expected to decrease from 540 cancer cases in one million to 21.5 cancer cases in one million.

Table B summarizes the sources and health effects of air pollutants discussed in this section. Table C presents a summary of State and federal ambient AAQS.

[3] California Air Resources Board (CARB). 2000. *Risk Reduction Plan to Reduce Particulate Matter Emissions from Diesel-Fueled Engines and Vehicles*. October.

[4] Ibid.

Table B: Sources and Health Effects of Air Pollutants

Pollutants	Sources	Primary Effects
Carbon Monoxide (CO)	• Incomplete combustion of fuels and other carbon-containing substances, such as motor exhaust • Natural events, such as decomposition of organic matter	• Reduced tolerance for exercise • Impairment of mental function • Impairment of fetal development • Death at high levels of exposure • Aggravation of some heart diseases (angina)
Nitrogen Dioxide (NO_2)	• Motor vehicle exhaust • High temperature stationary combustion • Atmospheric reactions	• Aggravation of respiratory illness • Reduced visibility • Reduced plant growth • Formation of acid rain
Ozone (O_3)	• Atmospheric reaction of organic gases with nitrogen oxides in sunlight	• Aggravation of respiratory and cardiovascular diseases • Irritation of eyes • Impairment of cardiopulmonary function • Plant leaf injury
Lead (Pb)	• Contaminated soil	• Impairment of blood functions and nerve construction • Behavioral and hearing problems in children
Suspended Particulate Matter ($PM_{2.5}$ and PM_{10})	• Stationary combustion of solid fuels • Construction activities • Industrial processes • Atmospheric chemical reactions	• Reduced lung function • Aggravation of the effects of gaseous pollutants • Aggravation of respiratory and cardiorespiratory diseases • Increased cough and chest discomfort • Soiling • Reduced visibility
Sulfur Dioxide (SO_2)	• Combustion of sulfur-containing fossil fuels • Smelting of sulfur-bearing metal ores • Industrial processes	• Aggravation of respiratory diseases (asthma, emphysema) • Reduced lung function • Irritation of eyes • Reduced visibility • Plant injury • Deterioration of metals, textiles, leather, finishes, coatings, etc.

Source: Common Air Pollutants (California Air Resources Board, 2022).

Table C: Federal and State Ambient Air Quality Standards

Pollutant	Averaging Time	California Standards[1]		Federal Standards[2]		
		Concentration[3]	Method[4]	Primary[3,5]	Secondary[3,6]	Method[7]
Ozone (O_3)[8]	1-Hour	0.09 ppm (180 µg/m³)	Ultraviolet Photometry	–	Same as Primary Standard	Ultraviolet Photometry
	8-Hour	0.07 ppm (137 µg/m³)		0.070 ppm (137 µg/m³)		
Respirable Particulate Matter (PM_{10})[9]	24-Hour	50 µg/m³	Gravimetric or Beta Attenuation	150 µg/m³	Same as Primary Standard	Inertial Separation and Gravimetric Analysis
	Annual Arithmetic Mean	20 µg/m³		–		
Fine Particulate Matter ($PM_{2.5}$)[9]	24-Hour	-		35 µg/m³	Same as Primary Standard	Inertial Separation and Gravimetric Analysis
	Annual Arithmetic Mean	12 µg/m³	Gravimetric or Beta Attenuation	9.0 µg/m³	15.0 µg/m³	
Carbon Monoxide (CO)	8-Hour	9.0 ppm (10 mg/m³)	Non-Dispersive Infrared Photometry (NDIR)	9 ppm (10 mg/m³)	–	Non-Dispersive Infrared Photometry (NDIR)
	1-Hour	20 ppm (23 mg/m³)		35 ppm (40 mg/m³)		
	8-Hour (Lake Tahoe)	6 ppm (7 mg/m³)		–	–	
Nitrogen Dioxide (NO_2)[10]	Annual Arithmetic Mean	0.03 ppm (57 µg/m³)	Gas Phase Chemi-luminescence	53 ppb (100 µg/m³)	Same as Primary Standard	Gas Phase Chemi-luminescence
	1-Hour	0.18 ppm (339 µg/m³)		100 ppb (188 µg/m³)	-	
Lead (Pb)[12,13]	30-Day Average	1.5 µg/m³	Atomic Absorption	–	–	High-Volume Sampler and Atomic Absorption
	Calendar Quarter	–		1.5 µg/m³ (for certain areas)[12]	Same as Primary Standard	
	Rolling 3-Month Average	–		0.15 µg/m³		
Sulfur Dioxide (SO_2)[11]	24-Hour	0.04 ppm (105 µg/m³)	Ultraviolet Fluorescence	0.14 ppm (for certain areas)	–	Ultraviolet Fluorescence; Spectro-photometry (Pararosaniline Method)
	3-Hour	–		–	0.5 ppm (1300 µg/m³)	
	1-Hour	0.25 ppm (655 µg/m³)		75 ppb (196 µg/m³)[11]	–	
	Annual Arithmetic Mean	–		0.030 ppm (for certain areas)[11]	–	
Visibility-Reducing Particles[12]	8-Hour	See footnote 14	Beta Attenuation and Transmittance through Filter Tape	No Federal Standards		
Sulfates	24-Hour	25 µg/m³	Ion Chromatography			
Hydrogen Sulfide	1-Hour	0.03 ppm (42 µg/m³)	Ultraviolet Fluorescence			
Vinyl Chloride[10]	24-Hour	0.01 ppm (26 µg/m³)	Gas Chromatography			

Table notes are provided on the following page.

[1] California standards for ozone, carbon monoxide (except 8-hour Lake Tahoe), sulfur dioxide (1- and 24-hour), nitrogen dioxide, and particulate matter (PM_{10}, $PM_{2.5}$, and visibility reducing particles) are values that are not to be exceeded. All others are not to be equaled or exceeded. California ambient air quality standards are listed in the Table of Standards in Section 70200 of Title 17 of the California Code of Regulations.

[2] National standards (other than ozone, particulate matter, and those based on annual arithmetic mean) are not to be exceeded more than once a year. The ozone standard is attained when the fourth-highest 8-hour concentration measured at each site in a year, averaged over three years, is equal to or less than the standard. For PM_{10}, the 24-hour standard is attained when the expected number of days per calendar year with a 24-hour average concentration above 150 µg/m3 is equal to or less than 1. For PM2.5, the 24-hour standard is attained when 98 percent of the daily concentrations, averaged over 3 years, are equal to or less than the standard. Contact the USEPA for further clarification and current national policies.

[3] Concentration expressed first in units in which it was promulgated. Equivalent units given in parentheses are based upon a reference temperature of 25°C and a reference pressure of 760 torr. Most measurements of air quality are to be corrected to a reference temperature of 25°C and a reference pressure of 760 torr; ppm in this table refers to ppm by volume, or micromoles of pollutant per mole of gas.

[4] Any equivalent measurement method that can be shown to the satisfaction of CARB to give equivalent results at or near the level of the air quality standard may be used.

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

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

[7] Reference method as described by the USEPA. An "equivalent method" of measurement may be used but must have a "consistent relationship to the reference method" and must be approved by the USEPA.

[8] On October 1, 2015, the national 8-hour ozone primary and secondary standards were lowered from 0.075 to 0.070 ppm.

[9] On December 14, 2012, the national annual $PM_{2.5}$ primary standard was lowered from 15 µg/m3 to 12.0 µg/m3. In February 2024, the national annual $PM_{2.5}$ primary standard was lowered from 12 $\mu g/m^3$ to 9.0 $\mu g/m^3$; the secondary annual standard remained at 15 $\mu g/m^3$. The existing national 24-hour $PM_{2.5}$ standards (primary and secondary) were retained at 35 µg/m3, as was the annual secondary standard of 15 µg/m3. The existing 24-hour PM_{10} standards (primary and secondary) of 150 µg/m3 also were retained. The form of the annual primary and secondary standards is the annual mean, averaged over 3 years.

[10] To attain the 1-hour national standard, the 3-year average of the annual 98th percentile of the 1-hour daily maximum concentrations at each site must not exceed 100 ppb. Note that the national 1-hour standard is in units of parts per billion (ppb). California standards are in units of parts per million (ppm). To directly compare the national 1-hour standard to the California standards, the units can be converted from ppb to ppm. In this case, the national standard of 100 ppb is identical to 0.100 ppm.

[11] On June 2, 2010, a new 1-hour SO2 standard was established, and the existing 24-hour and annual primary standards were revoked. To attain the 1-hour national standard, the 3-year average of the annual 99th percentile of the 1-hour daily maximum concentrations at each site must not exceed 75 ppb. The 1971 SO2 national standards (24-hour and annual) remain in effect until 1 year after an area is designated for the 2010 standard, except that in areas designated as nonattainment for the 1971 standards, the 1971 standards remain in effect until implementation plans to attain or maintain the 2010 standards are approved.
Note that the 1-hour national standard is in units of parts per billion (ppb). California standards are in units of parts per million (ppm). To directly compare the 1-hour national standard to the California standard, the units can be converted to ppm. In this case, the national standard of 75 ppb is identical to 0.075 ppm.

[12] CARB has identified lead and vinyl chloride as "toxic air contaminants" with no threshold level of exposure for adverse health effects determined. These actions allow for the implementation of control measures at levels below the ambient concentrations specified for these pollutants.

[13] The national standard for lead was revised on October 15, 2008, to a rolling 3-month average. The 1978 lead standard (1.5 µg/m3 as a quarterly average) remains in effect until 1 year after an area is designated for the 2008 standard, except that in areas designated as nonattainment for the 1978 standard, the 1978 standard remains in effect until implementation plans to attain or maintain the 2008 standard are approved.

[14] In 1989, CARB converted both the general statewide 10-mile visibility standard and the Lake Tahoe 30-mile visibility standard to instrumental equivalents, which are "extinction of 0.23 per kilometer" and "extinction of 0.07 per kilometer" for the statewide and Lake Tahoe Air Basin standards, respectively.

Source: Ambient Air Quality Standards (CARB 2024).
$\mu g/m^3$ = micrograms per cubic meter
°C = degrees Celsius
mg/m^3 = milligrams per cubic meter
CARB = California Air Resources Board
PM_{10} = particulate matter less than 10 microns in size
$PM_{2.5}$ = particulate matter less than 2.5 microns in size
ppb = parts per billion
ppm = parts per million
USEPA = United States Environmental Protection Agency

Environmental Setting

Attainment Status

Air quality monitoring stations are located throughout the nation and maintained by the local air districts and State air quality regulating agencies. Data collected at permanent monitoring stations are used by the USEPA to identify regions as "attainment" or "nonattainment" depending on whether the regions meet the requirements stated in the applicable NAAQS. Nonattainment areas are imposed with additional restrictions as required by the USEPA. In addition, different classifications of attainment, such as marginal, moderate, serious, severe, and extreme, are used to classify each air basin in the State on a pollutant-by-pollutant basis. The classifications are used as a foundation to create air quality management strategies to improve air quality and comply with the NAAQS. Attainment statuses for each of the criteria pollutants for San Diego County are listed in Table D.

Table D: Attainment Status of Criteria Pollutants in San Diego County

Pollutant	Federal	State
O_3 1 hour	Nonattainment	Nonattainment
O_3 8 hour	Attainment[1]	Nonattainment
CO	Attainment	Attainment
PM_{10}	Unclassifiable[2]	Nonattainment
$PM_{2.5}$	Attainment	Nonattainment
NO_2	Attainment	Attainment
SO_2	Attainment	Attainment
Pb	Attainment	Attainment
Sulfates	No Federal Standard	Attainment
Hydrogen Sulfide	No Federal Standard	Unclassified
Visibility	No Federal Standard	Unclassified

Source: Attainment Status (San Diego Air Pollution Control District, 2022).

[1] The federal 1-hour standard of 12 ppm was in effect from 1979 through June 15, 2005. The revoked standard is referenced here because it was employed for such a long period and because this benchmark is addressed in State Implementation Plans.

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

CO = carbon monoxide
NO_2 = nitrogen dioxide
O_3 = ozone
Pb = lead
PM_{10} = particulate matter less than 10 microns in diameter
$PM_{2.5}$ = particulate matter less than 2.5 microns in diameter
ppm = parts per million
SO_2 = sulfur dioxide

Existing Climate and Air Quality

Air quality in the planning area is affected by not only various emission sources (e.g., mobile and industry) but also atmospheric conditions (e.g., wind speed, wind direction, temperature, and rainfall). The combination of topography, low mixing height, abundant sunshine, and emissions from the second-largest urban area in the United States gives the Basin some of the worst air pollution in the nation.

The annual average temperature varies little throughout the Basin, ranging from the low to middle 60s degrees Fahrenheit (°F). With a more pronounced oceanic influence, coastal areas show less variability in annual minimum and maximum temperatures than inland areas. The climatological

station closest to the site is the El Capitan Dam station.[5] The monthly average maximum temperature recorded at this station ranges from 68.6°F in January to 93.6°F in August, with an annual average maximum of 80.0°F. The monthly average minimum temperature recorded at this station ranges from 41.2°F in January to 59.2°F in August, with an annual average minimum of 49.7°F. These levels are still representative of the project area.

The majority of annual rainfall in the Basin occurs between November and April. Summer rainfall is minimal and is generally limited to scattered thundershowers in coastal regions and slightly heavier showers in the eastern portion of the Basin and along the coastal side of the mountains. Average monthly rainfall at the El Capitan Dam station varies from 3.09 inches in January to 0.06 inch in July, with an annual total of 15.66 inches. Patterns in monthly and yearly rainfall totals are unpredictable due to fluctuations in the weather.

The Basin experiences a persistent temperature inversion (increasing temperature with increasing altitude) as a result of the Pacific high. This inversion limits the vertical dispersion of air contaminants, holding them relatively near the ground. As the sun warms the ground and the lower air layer, the temperature of the lower air layer approaches the temperature of the base of the inversion (upper) layer until the inversion layer finally breaks, allowing vertical mixing with the lower layer. This phenomenon is observed in midafternoon to late afternoon on hot summer days, when the air appears to clear up suddenly. Winter inversions frequently break by midmorning.

Winds in the project area blow predominantly from the south-southwest, with relatively low velocities. Wind speeds in the project area average about 5 miles per hour. Summer wind speeds average slightly higher than winter wind speeds. Low average wind speeds, together with a persistent temperature inversion, limit the vertical dispersion of air pollutants throughout the Basin. Strong, dry, north or northeasterly winds, known as Santa Ana winds, occur during the fall and winter months, dispersing air contaminants. The Santa Ana conditions tend to last for several days at a time.

The combination of stagnant wind conditions and low inversions produces the greatest pollutant concentrations. On days of no inversion or high wind speeds, ambient air pollutant concentrations are the lowest. During periods of low inversions and low wind speeds, air pollutants generated in urbanized areas are transported predominantly on shore into Riverside and San Bernardino Counties. In the winter, the greatest pollution problems are CO and NO_X because of extremely low inversions and air stagnation during the night and early morning hours. In the summer, the longer daylight hours and brighter sunshine combine to cause a reaction between hydrocarbons and NO_X to form photochemical smog. Smog is a general term for naturally occurring fog that has become mixed with smoke or pollution. In this context, it is better described as a form of air pollution produced by the photochemical reaction of sunlight with pollutants that have been released into the atmosphere, especially by automotive emissions.

[5] Western Regional Climate Center. 2016. El Capitan Dam, California (042709): Period of Record Monthly Climate Summary, 07/01/1947 to 05/31/2016. Website: wrcc.dri.edu/cgi-bin/cliMAIN.pl?ca2709 (accessed June 2024).

Air Quality Monitoring Results

Air quality monitoring stations are located throughout the nation and are maintained by the local air pollution control district and State air quality regulating agencies. The SDAPCD, together with CARB, maintains ambient air quality monitoring stations in the Basin. The nearest ambient monitoring station to the project site is El Cajon – Lexington Elementary School, which is 6 miles southeast of the project site. The air quality trends from stations are used to represent the ambient air quality in the project area. The ambient air quality data in Table E show that CO, NO_2, SO_2, PM_{10}, $PM_{2.5}$ levels are below the applicable State and federal standards. Results also indicate that 1-hour O_3 levels exceeded the State standard one time in the last 3 years, and the 8-hour O_3 levels exceeded the State and federal standards between 2 and 6 times in the last 3 years.

Regulatory Setting

The USEPA and CARB regulate direct emissions from motor vehicles. The SDAPCD is the regional agency primarily responsible for regulating air pollution emissions from stationary sources (e.g., factories) and indirect sources (e.g., traffic associated with new development), as well as monitoring ambient pollutant concentrations.

Federal Regulations

The 1970 Federal Clean Air Act (CAA) authorized the establishment of national health-based air quality standards and also set deadlines for their attainment. The CAA Amendments of 1990 changed deadlines for attaining national standards as well as the remedial actions required of areas of the nation that exceed the standards. Under the CAA, State and local agencies in areas that exceed the national standards are required to develop State Implementation Plans (SIPs) to demonstrate how they will achieve the national standards by specified dates.

State Regulations

California Clean Air Act. In 1988, the California Clean Air Act (CCAA) required that all air districts in the State endeavor to achieve and maintain CAAQS for CO, O_3, SO_2, and NO_2. The CCAA provides districts with the authority to regulate indirect sources and mandates that air quality districts focus particular attention on reducing emissions from transportation and area-wide emission sources. Each nonattainment district is required to adopt a plan to achieve a 5 percent annual reduction, averaged over consecutive 3-year periods, in district-wide emissions of each nonattainment pollutant or its precursors. A Clean Air Plan shows how a district would reduce emissions to achieve air quality standards. Generally, the State standards for these pollutants are more stringent than the national standards.

Regional and Local Regulations

San Diego County Air Pollution Control District. The SDAPCD has adopted air quality plans to improve air quality, protect public health, and protect the climate. The San Diego Regional Air Quality Strategy (RAQS) outlines SDAPCD plans and control measures designed to attain and maintain the State standards, while the SDAPCD portions of the SIP are designed to attain and maintain federal standards. The RAQS was initially adopted in 1991 and is updated on a triennial basis. The RAQS was updated in 1995, 1998, 2001, 2004, 2009, and most recently in March 2023. The RAQS does not currently address the CAAQS for $PM_{2.5}$ and PM_{10}.

Table E: Ambient Air Quality Monitored at the El Cajon-Lexington Elementary School Station

Pollutant	Standard	2021	2022	2023
Carbon Monoxide (CO)				
Maximum 1-hour concentration (ppm)		1.2	1.4	1.1
Number of days exceeded:	**State:** > 20 ppm	0	0	0
	Federal: > 35 ppm	0	0	0
Maximum 8-hour concentration (ppm)		1.1	1.1	0.9
Number of days exceeded:	**State:** ≥ 9.0 ppm	0	0	0
	Federal: ≥ 9.0 ppm	0	0	0
Ozone (O_3)				
Maximum 1-hour concentration (ppm)		0.088	0.100	0.099
Number of days exceeded:	**State:** > 0.12 ppm	0	1	0
Maximum 8-hour concentration (ppm)		0.076	0.088	0.077
Number of days exceeded:	**State:** > 0.07 ppm	3	2	ND
	Federal: > 0.07 ppm	3	2	6
Coarse Particulates (PM_{10})				
Maximum 24-hour concentration (µg/m³)		40.0	44.0	42.0
Number of days exceeded:	**State:** > 50 µg/m³	0	1	0
	Federal: > 150 µg/m³	0	0	0
Annual arithmetic average concentration (µg/m³)		ND	ND	ND
Exceeded for the year:	**State:** > 20 µg/m³	No	No	No
Fine Particulates ($PM_{2.5}$)				
Maximum 24-hour concentration (µg/m³)		30.2	26.4	17.5
Number of days exceeded:	**Federal:** > 35 µg/m³	0	0	0
Annual arithmetic average concentration (µg/m³)		9.7	9.4	8.5
Exceeded for the year:	**State:** > 12 µg/m³	No	No	No
	Federal: > 15 µg/m³	No	No	No
Nitrogen Dioxide (NO_2)				
Maximum 1-hour concentration (ppm)		0.038	0.037	0.039
Number of days exceeded:	**State:** > 0.18 ppm	0	0	0
Annual arithmetic average concentration (ppm)		0.006	0.008	0.007
Exceeded for the year:	**State:** > 0.030 ppm	No	No	No
	Federal: > 0.053 ppm	No	No	No
Sulfur Dioxide (SO_2)				
Maximum 1-hour concentration (ppm)		0.0016	0.0008	0.0007
Number of days exceeded:	**State:** > 0.25 ppm	0	0	0
	Federal: > 0.075 ppm	0	0	0
Annual arithmetic average concentration (ppm)		0.00006	0.00006	0.00006
Exceeded for the year:	**Federal:** > 0.030 ppm	No	No	No

Source 1: United States Environmental Protection Agency. AirData: 2023 Air Quality Data. Website: www.epa.gov/outdoor-air-quality-data/monitor-values-report (accessed June 2024).
Source 2: California Air Resources Board. iADAM: Air Quality Data Statistics. Website: www.arb.ca.gov/adam (accessed June 2024).
µg/m³ = micrograms per cubic meter
ND = No Data
ppm = parts per million
$PM_{2.5}$ = particulate matter smaller than or equal to 2.5 microns in diameter
PM_{10} = particulate matter smaller than or equal to 10 microns in diameter

SDAPCD has also developed the SDAB input to the SIP, which is required under the CAA for areas that are out of attainment of air quality standards. Both the RAQS and SIP demonstrate the effectiveness of CARB measures (mainly for mobile sources) and SDAPCD plans and control measures (mainly for stationary and area-wide sources) for attaining the O_3 NAAQS. The SIP is also updated on a triennial basis. In October 2015, the EPA strengthen the NAAQS for O_3 from 75 part

per billion (ppb) to 70 ppb. SDAPCD adopted its 2020 ozone attainment plan[6] which demonstrates how the region will further reduce air pollutant emissions in order to attain the current NAAQS for ozone. In addition, the Measures to Reduce Particulate Matter in San Diego County Report[7] proposes measures to reduce particulate matter emissions and recommends measures for further detailed evaluation and, if appropriate, future rule development (or non-regulatory development, if applicable), adoption, and implementation in San Diego County, in order to attain particulate matter CAAQS.

The RAQS relies on information from the CARB and the San Diego Association of Governments (SANDAG), including mobile and area source emissions, as well as information regarding projected growth in the County, to project future emissions and then determine from that the strategies necessary for the reduction of emissions through regulatory controls. The CARB mobile source emission projections and SANDAG growth projections are based on population and vehicle trends and land use plans developed by the cities and by the County as part of the development of the County's General Plan. As such, projects that propose development that is consistent with the growth anticipated by the general plans would be consistent with the RAQS. In the event that a project would propose development that is less dense than anticipated by the General Plan, the project would likewise be consistent with the RAQS. If a project proposes development that is greater than that anticipated by the General Plan and SANDAG growth projections, the project might be in conflict with the RAQS and SIP and might have a potentially significant impact on air quality.

The SIP relies on the same information from SANDAG to develop emission inventories and emission reduction strategies that are included in the attainment demonstration for the SDAB. The SIP also includes rules and regulations that have been adopted by the SDAPCD to control emissions from stationary sources. These SIP-approved rules may be used as a guideline to determine whether a project's emissions would have the potential to conflict with the SIP and thereby hinder attainment of the NAAQS for ozone.

SDAPCD Rules and Regulations. As stated above, the SDAPCD is responsible for planning, implementing, and enforcing NAAQS and CAAQS in the SDAB. The following rules and regulations apply to all sources within the jurisdiction of SDAPCD, and would apply to the proposed project:

1. *SDAPCD Regulation IV: Prohibitions; Rule 50: Visible Emissions.* Prohibits visible emissions from exceeding a determined visual threshold from being emitted, this rule applies to the discharge of any air contaminant other than uncombined water vapor.[8]

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6 SDAPCD. 2020. 2020 *Plan for Attaining the National Ambient Air Quality Standards for Ozone in San Diego County.* October. Website: https://www.sdapcd.org/content/dam/sdapcd/documents/grants/planning/Att%20A%20(Attainment%20Plan)_ws.pdf (accessed June 2024)

7 SDAPCD. 2005. Measures to Reduce Particulate Matter in San Diego County. Website: www.sdapcd.org/content/dam/sdapcd/documents/grants/planning/PM-Measures.pdf (accessed June 2024).

8 SDAPCD. 1997. *Rule 50: Visible Emissions*. Website: www.sdapcd.org/content/dam/sdc/apcd/PDF/Rules_and_Regulations/Prohibitions/APCD_R50.pdf (accessed June 2024).

2. *SDAPCD Regulation IV: Prohibitions; Rule 51: Nuisance.* Prohibits the discharge, from any source, of such quantities of air contaminants or other materials that cause or have a tendency to cause injury, detriment, nuisance, annoyance to people and/or the public, or damage to any business or property.[9]

3. *SDAPCD Regulation IV: Prohibitions; Rule 55: Fugitive Dust.* Regulates fugitive dust emissions from any commercial construction or demolition activity capable of generating fugitive dust emissions, including active operations, open storage piles, and inactive disturbed areas, as well as track-out and carry-out onto paved roads beyond a project Site.[10]

4. *SDAPCD Regulation IV: Prohibitions; Rule 67.0.1: Architectural Coatings.* Requires manufacturers, distributors, and end users of architectural and industrial maintenance coatings to reduce VOC emissions from the use of these coatings, primarily by placing limits on the VOC content of various coating categories.[11]

San Diego Association of Governments. The SANDAG adopted the San Diego Forward: The 2019 Federal Regional Transportation Plan (2019 Regional Plan), which serves as the long-term blueprint for the San Diego region that seeks to meet regulatory requirements, address traffic congestion, and create equal access to jobs, education, healthcare, and other community resources. Most recently, SANDAG adopted the 2021 Regional Plan on December 10, 2021, which considers many issues including climate action planning, climate adaptation, electric vehicles, housing, land use and regional growth, parking management, and transportation demand management. [12] SANDAG is currently working on the development of the 2025 Regional Plan, the Draft Plan is estimated to be ready for public review in Spring 2025[13].

City of Santee General Plan

The City of Santee (City) General Plan includes goals and policies from the land use and mobility elements.

Land Use Element Objectives and Goals:

- **Objective 2.0:** Allow for the development of a wide range of housing types in the City.

  Policy 2.1: The City should promote the use of innovative site planning techniques that contribute towards provision of a variety of residential product styles and designs.

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9 SDAPCD. 1976. *Rule 51: Nuisance*. Website: www.sandiegocounty.gov/content/dam/sdc/apcd/PDF/Rules_and_Regulations/Prohibitions/APCD_R50-1-51.pdf (accessed June 2024).

10 SDAPCD. 2009. *Rule 55: Fugitive Dust Control*. Website: www.sdapcd.org/content/dam/sdc/apcd/PDF/Rules_and_Regulations/Prohibitions/APCD_R55.pdf (accessed June 2024).

11 SDAPCD. 2021. *Rule 67: Fugitive Dust Control*. Website: www.sdapcd.org/content/dam/sdc/apcd/PDF/Rules_and_Regulations/Prohibitions/APCD_R67-0-1-2021.pdf (accessed June 2024).

12 San Diego Association of Governments. 2021. *2021 San Diego Regional Plan*. Website: sdforward.com/ (accessed June 2024).

13 San Diego Association of Governments. 2024. 2024 Regional Plan. Website: https://www.sandag.org/regional-plan/2025-regional-plan (accessed June 2024).

Policy 2.3: The City should encourage planned residential and/or planned unit developments that provide adequate open space, recreational facilities, off-street parking, interior circulation patterns and other amenities and facilities.

Policy 5.3: The City shall ensure that industrial development creates no significant off-site impacts related to access and circulation, noise, dust, odors, visual features and hazardous materials, that cannot be adequately mitigated.

- **Objective 6.0:** Ensure that natural and man-induced hazards are adequately addressed in the location and intensity of development in the City.

Policy 6.2: The City should promote the use of innovative site planning to avoid on-site hazards and minimize risk levels

Mobility Element Objectives and Goals:

- **Objective 9.0:** Increased use of alternative modes of travel to reduce peak hour vehicular trips, save energy, and improve air quality.

Policy 9.1: The City shall encourage and provide for Ride Sharing, Park 'n Ride, and other similar commuter programs that eliminate vehicles from freeways and arterials.

Policy 9.4: The City should encourage the use of alternative transportation modes, such as walking, cycling and public transit. The City should maintain and implement the policies and recommendations of the Bicycle Master Plan and Safe Routes to School Plan to improve safe bicycle and pedestrian access to major destinations.

Policy 9.5: The City should improve safety of walking and biking environment around schools to reduce school-related vehicle trips.

METHODOLOGY

Construction Emissions

Construction activities can generate a substantial amount of air pollution. Construction activities are considered temporary; however, short-term impacts can contribute to exceedances of air quality standards. Construction activities include site preparation, earthmoving, and general construction. The emissions generated from these common construction activities include fugitive dust from soil disturbance, fuel combustion from mobile heavy-duty, diesel- and gasoline-powered equipment, portable auxiliary equipment, and worker commute trips. California Emissions Estimator Model (CalEEMod) version 2022.1 was used to calculate emissions from on-site construction equipment and emissions from worker and vehicle trips to the site. Construction of the proposed project is anticipated to begin in June 2025 and be completed in December 2026. During construction, 6,329 cubic yards of soil would be imported. This analysis uses CalEEMod defaults for construction worker, vendor, and haul trips and construction equipment.

Operational Emissions

This air quality analysis includes estimating emissions associated with long-term operation of the project. Indirect emissions of criteria pollutants with regional impacts would be emitted by project-generated vehicle trips. In addition, localized air quality impacts (i.e., higher carbon monoxide concentrations or "hot-spots") near intersections or roadway segments in the project vicinity would also potentially occur due to project-generated vehicle trips.

Consistent with SDAPCD guidance for estimating emissions associated with land use development projects, the CalEEMod computer program was used to calculate the long-term operational emissions associated with the project. The analysis was conducted using land use codes *Apartments Low Rise.* Trip generation rates used in CalEEMod for the project were based on the project's trip generation estimates, which assume the proposed project would typically generate approximately 432 ADT.[14] Where project-specific data were not available, default assumptions (e.g., energy usage, water usage, and solid waste generation) from CalEEMod were used to estimate project emissions. The CalEEMod Summary Report is included as Appendix A.

THRESHOLDS OF SIGNIFICANCE

The State of California has developed guidelines to address the significance of air quality impacts based on Appendix G of the CEQA Guidelines, which provides guidance that a project would have a significant environmental impact if it would:

- Conflict with or obstruct implementation of the applicable air quality plan;
- 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 ambient air quality standard;
- Expose sensitive receptors to substantial pollutant concentrations; or
- Result in other emissions (such as those leading to odors) adversely affecting a substantial number of people.

Appendix G of the CEQA Guidelines indicates that, where available, the significance criteria established by the applicable air quality management district or air pollution control district may be relied upon to determine whether a project would have a significant impact on air quality.

The SDAPCD does not provide quantitative thresholds for determining the significance of construction or mobile source-related impacts. However, the district does specify Air Quality Impact Analysis (AQIA) trigger levels for new or modified stationary sources (SDAPCD Rules 20.2 and 20.3). If these incremental levels for stationary sources are exceeded, an AQIA must be performed for the proposed new or modified source. Although these trigger levels do not generally apply to mobile sources or general land development projects, for comparative purposes, these levels may be used to evaluate the increased emissions which would be discharged to the SDAB from proposed land development projects.

[14] LSA. 2024. *CEQA Transportation Analysis Screening Form*. June.

For CEQA purposes, the screening criteria can be used as numeric methods to demonstrate that the project's total emissions (e.g., stationary and fugitive emissions, as well as emissions from mobile sources) would not result in a significant impact to air quality. The hourly and yearly screening-level thresholds are most appropriately used in situations when temporary emissions like emergency generators or other stationary sources are proposed as a part of a project (the proposed project does not include an emergency generator). The daily screening-level thresholds are most appropriately used for the standard construction and operational emissions. As such, this analysis will compare the proposed project's emissions to the daily screening-level thresholds in Table F below.

Table F: SDAPCD Air Quality Significance Thresholds

Air Pollutant	Construction Phase (lbs/day)	Operational Phase		
		(lbs/hour)	(lbs/day)	(tons/year)
VOCs	75	—	75	13.7
CO	550	100	550	100
NO_x	250	25	250	40
SO_x	250	25	250	40
PM_{10}	100	—	100	15
$PM_{2.5}$	55	—	55	10

Source: Regulation II: Permits; Rule 20.2: New Source Review—Non-Major Sources (SDAPCD, January 2016).
CO = carbon monoxide
lbs = pounds
NO_x = nitrogen oxides
$PM_{2.5}$ = particulate matter less than 2.5 microns in size
PM_{10} = particulate matter less than 10 microns in size
SDAPCD = San Diego County Air Pollution Control District
SO_X = sulfur oxides
VOCs = volatile organic compounds

IMPACTS AND RECOMMENDATIONS

This section identifies the air quality impacts associated with implementation of the proposed project. Recommendations and project features have been identified, as appropriate, to eliminate or reduce project impacts.

Consistency with Applicable Air Quality Plans

The SDAPCD is responsible for developing and implementing the clean air plans for attainment and maintenance of the AAQS in the SDAB, specifically the SIP and RAQS. The federal O_3 maintenance plan, which is part of the SIP, was adopted in 2012. The most recent O_3 attainment plan was adopted in 2020. The SIP includes a demonstration that current strategies and tactics will maintain acceptable air quality in the SDAB based on the NAAQS. The RAQS was initially adopted in 1991 and is updated on a triennial basis (most recently in 2023). The RAQS outlines SDAPCD plans and control measures designed to attain the State's air quality standards for O_3. The SIP and RAQS rely on information from CARB and SANDAG, including mobile and area source emissions, as well as information regarding projected growth in the County as a whole and the cities in the County, to project future emissions and determine the strategies necessary for the reduction of emissions through regulatory controls. CARB mobile source emission projections and SANDAG growth projections are based on population, vehicle trends, and land use plans developed by the County and the cities in the County as part of the development of their general plans.

As discussed above, projects that propose development that is consistent with the growth anticipated by the general plans would be consistent with the RAQS. In the event that a project would propose development that is less dense than anticipated by the General Plan, the project would likewise be consistent with the RAQS. If a project proposes development that is greater than that anticipated by the General Plan and SANDAG growth projections, the project might be in conflict with the RAQS and SIP and might have a potentially significant impact on air quality.

Implementation of the proposed project would result in an increase in 53 residential units. If a project proposes development that is greater than that anticipated in the local plan and SANDAG growth projections, the project might be in conflict with the SIP and RAQS and may contribute to a potentially significant cumulative impact on air quality. The project site is designated as R14 – Medium High Density Residential (14–22 dwelling units per gross acre) in the City's General Plan, which is intended to provide for compatible high density multiple family residential development including apartments, condominiums, and senior housing. The proposed project will consist of 53 three-story multifamily residential for-sale townhomes within 10 buildings. The overall density proposed for this project is 21.6 dwelling units per acre, which is consistent with this designation. Therefore, the proposed project would be consistent with the General Plan land use designation for the site.

In summary, the proposed project would be consistent with the General Plan land use designation for the site; therefore, the proposed project would not result in development in excess of that anticipated in the General Plan or increases in population/housing growth beyond those contemplated by SANDAG. As such, the proposed project would not increase the population, vehicle trips, or vehicle miles traveled beyond what was anticipated in the RAQS and SIP. Because the proposed project development and associated vehicle trips are anticipated in local air quality plans, the proposed project would be consistent at a regional level with the underlying growth forecasts in the RAQS and SIP.

Criteria Pollutant Analysis

The SDAB is currently designated nonattainment for O_3, PM_{10}, and $PM_{2.5}$ standards. The SDAB nonattainment status is attributed to the region's development history. Past, present, and future development projects contribute to the region's adverse air quality impacts on a cumulative basis. By its very nature, air pollution is largely a cumulative impact. No single project is sufficient in size to, by itself, result in nonattainment of an ambient air quality standard. Instead, a project's individual emissions contribute to existing cumulatively significant adverse air quality impacts. If a project's contribution to the cumulative impact is considerable, then the project's impact on air quality would be considered significant.

In developing thresholds of significance for air pollutants, SDAPCD considered the emission levels for which a project's individual emissions would be cumulatively considerable. If a project exceeds the identified significance thresholds, its emissions would be cumulatively considerable, resulting in significant adverse air quality impacts to the region's existing air quality conditions. Therefore, additional analysis to assess cumulative impacts is not necessary. The following analysis assesses the potential project-level air quality impacts associated with construction and operation of the proposed project.

Construction Emissions

During construction, short-term degradation of air quality may occur due to the release of PM emissions (e.g., fugitive dust) generated by excavating, grading, hauling, and paving activities. Emissions from construction equipment are also anticipated and would include CO, NO_X, VOCs, directly emitted $PM_{2.5}$ and PM_{10}, and TACs (e.g., DPM).

Construction-related effects on air quality from the proposed project would be greatest during grading, due to construction activity on unpaved surfaces. If not properly controlled, these activities would temporarily generate particulate emissions. Unless properly controlled, vehicles leaving the site would deposit dirt and mud on local streets, which could be an additional source of airborne dust after it dries. PM_{10} emissions would vary from day to day, depending on the nature and magnitude of construction activity and local weather conditions. PM_{10} emissions would depend on soil moisture, the silt content of soil, wind speed, and the amount of operating equipment. Larger dust particles would settle near the source, while fine particles would be dispersed over greater distances from the construction site.

Water or other soil stabilizers can be used to control dust at least twice daily, resulting in emission reductions of 50 percent or more. The SDAPCD has established Rule 55, Fugitive Dust Control, which would require the applicant to implement measures that would reduce the amount of PM generated during the construction period.[15]

In addition to dust-related PM_{10} emissions, heavy trucks and construction equipment powered by gasoline and diesel engines would generate CO, SO_2, NO_x, VOCs and some soot particulate ($PM_{2.5}$ and PM_{10}) in exhaust emissions. If construction activities were to increase traffic congestion in the area, CO and other emissions from traffic would increase slightly while those vehicles idle in traffic. These emissions would be temporary in nature and limited to the immediate area surrounding the construction site.

Construction emissions were estimated for the project using CalEEMod. Table G shows the tentative construction schedule, assuming a construction would begin in June 2025 and end in December 2026. During construction, 6,329 cubic yards of soil would need to be imported. This analysis utilizes CalEEMod defaults for construction worker, vendor, and haul trips, construction equipment. Construction-related emissions are presented in Table H. The CalEEMod Summary Report is included as Appendix A.

[15] SDAPCD. 2009. *Rule 55: Fugitive Dust Control*. Website: www.sdapcd.org/content/dam/sdc/apcd/PDF/Rules_and_Regulations/Prohibitions/APCD_R55.pdf (accessed June 2024).

Table G: Anticipated Construction Schedule

Phase Name	Phase Start Date	Phase End Date	Number of Days/Week	Number of Days
Site Preparation	6/3/2025	6/16/2025	5	10
Grading	6/17/2025	7/15/2025	5	21
Building Construction	7/16/2025	9/30/2026	5	316
Architectural Coating	10/1/2026	11/3/2026	5	24
Paving	11/4/2026	12/31/2026	5	42

Source: Compiled by LSA based on information provided by the Project Applicant (June 2024).

Table H: Project Construction Emissions (in Pounds Per Day)

Project Construction	Maximum Pollutant Emissions (lbs/day)					
	VOC	NO_X	CO	SO_X	PM_{10}	$PM_{2.5}$
2025	1.6	17.7	16.3	<0.1	4.2	2.2
2026	12.9	10.4	13.4	<0.1	0.7	0.4
Maximum (lbs/day)	12.9	17.7	16.3	<0.1	4.2	2.2
SDAPCD Thresholds	75	250	550	250	100	55
Exceeds?	**No**	**No**	**No**	**No**	**No**	**No**

Source: Compiled by LSA (June 2024).
CO = carbon monoxide
lbs/day = pounds per day
NO_X = nitrogen oxides
$PM_{2.5}$ = particulate matter less than 2.5 microns in size
PM_{10} = particulate matter less than 10 microns in size
SDAPCD = San Diego Air Pollution Control District
SO_X = sulfur oxides
VOC = volatile organic compounds

As shown in Table H, construction emissions associated with the project would not exceed the SDAPCD thresholds for VOC, NO_x, CO, SO_x, $PM_{2.5}$, and PM_{10}. Therefore, construction of the proposed project would not result in a cumulatively considerable increase of any criteria pollutant for which the project region is in nonattainment under an applicable federal or State AAQS.

Operational Air Quality Impacts

Long-term air pollutant emission impacts are those associated with mobile sources (e.g., vehicle trips), energy sources (e.g., electricity and natural gas), and area sources (e.g., architectural coatings and the use of landscape maintenance equipment) related to the proposed project.

PM_{10} emissions result from running exhaust, tire and brake wear, and the entrainment of dust into the atmosphere from vehicles traveling on paved roadways. Entrainment of PM_{10} occurs when vehicle tires pulverize small rocks and pavement, and the vehicle wakes generate airborne dust. The contribution of tire and brake wear is small compared to the other PM emission processes. Gasoline-powered engines have small rates of particulate matter emissions compared with diesel-powered vehicles.

Energy source emissions result from activities in buildings for which electricity and natural gas are used. The quantity of emissions is the product of usage intensity (i.e., the amount of electricity or natural gas) and the emission factor of the fuel source. The primary sources of energy demand for

the proposed project would include building mechanical systems, such as heating and air conditioning, lighting, and plug-in electronics, such as refrigerators or computers. Greater building or appliance efficiency reduces the amount of energy for a given activity and thus lowers the resultant emissions. The emission factor is determined by the fuel source, with cleaner energy sources, like renewable energy, producing fewer emissions than conventional sources. As identified in the methodology section above, the project would incorporate sustainable design features and comply with 2022 Title 24 standards, which were accounted for in the analysis.

Typically, area source emissions consist of direct sources of air emissions located at the project site, including architectural coatings and the use of landscape maintenance equipment. Area source emissions associated with the project would include emissions from the use of architectural coatings, consumer products, and landscaping equipment. This analysis assumes that the proposed project would not include any wood burning stoves or fireplaces.

Long-term operation emissions associated with the proposed project were calculated using CalEEMod. Trip generation rates used in CalEEMod for the project were based on the project's trip generation estimates, which assumes the proposed project would typically generate approximately 432 ADT.[16] Model results are shown in Table I below.

Table I: Project Operational Emissions in Pounds Per Day

Source	Pollutant Emissions (lbs/day)					
	VOC	NO_X	CO	SO_X	PM_{10}	$PM_{2.5}$
Project Mobile Sources	1.6	1.1	10.7	<0.1	2.3	0.6
Project Area Sources	2.3	0.9	3.4	<0.1	0.1	0.1
Project Energy Sources	<0.1	0.1	<0.1	<0.1	<0.1	<0.1
Total Project Emissions	**3.9**	**2.1**	**14.1**	**<0.1**	**2.4**	**0.7**
SDAPCD Thresholds	75	250	550	250	100	55
Exceeds?	**No**	**No**	**No**	**No**	**No**	**No**

Source: Compiled by LSA (June 2024).
CO = carbon monoxide
lbs/day = pounds per day
NO_x = nitrogen oxides
$PM_{2.5}$ = particulate matter less than 2.5 microns in size
PM_{10} = particulate matter less than 10 microns in size
SDAPCD = San Diego Air Pollution District
SO_x = sulfur oxides
VOC = volatile organic compounds

As shown in Table I, the proposed project would not exceed the SDAPCD significance criteria for daily VOC, NO_x, CO, SO_x, PM_{10}, or $PM_{2.5}$ emissions. Therefore, operation of the proposed project would not result in a cumulatively considerable net increase of any criteria pollutant for which the project region is in nonattainment under an applicable federal or State AAQS.

Long-Term Microscale (CO Hot Spot) Analysis

Vehicular trips associated with the proposed project would contribute to congestion at intersections and along roadway segments in the project vicinity. Localized air quality impacts would occur when emissions from vehicular traffic increase as a result of the proposed project. The primary mobile-source pollutant of local concern is CO, a direct function of vehicle idling time and, thus, of traffic

[16] LSA. 2023. *CEQA Transportation Analysis Screening Form*. January.

flow conditions. CO transport is extremely limited; under normal meteorological conditions, CO disperses rapidly with distance from the source. However, under certain extreme meteorological conditions, CO concentrations near a congested roadway or intersection may reach unhealthful levels, affecting local sensitive receptors (e.g., residents, schoolchildren, the elderly, and hospital patients). Typically, high CO concentrations are associated with roadways or intersections operating at unacceptable levels of service or with extremely high traffic volumes. In areas with high ambient background CO concentrations, modeling is recommended to determine a project's effect on local CO levels.

An assessment of project-related impacts on localized ambient air quality requires that future ambient air quality levels be projected. Ambient CO levels monitored at the El Cajon Monitoring Station, the closest station with complete monitored CO data, showed a highest recorded 1-hour concentration of 1.4 ppm (the State standard is 20 ppm) and a highest 8-hour concentration of 1.1 ppm (the State standard is 9 ppm) during the past 3 years (Table E). The highest CO concentrations would normally occur during peak traffic hours; hence, CO impacts calculated under peak traffic conditions represent a worst-case analysis.

Given the extremely low level of CO concentrations in the project area, and minor traffic impact increases at affected intersections, project-related vehicles are not expected to contribute significantly to result in the CO concentrations exceeding the State or federal CO standards. Because no CO hot spots would occur, there would be no project-related impacts on CO concentrations.

Health Risk on Nearby Sensitive Receptors

Sensitive receptors are defined as people that have an increased sensitivity to air pollution or environmental contaminants. Sensitive receptor locations include schools, parks and playgrounds, daycare centers, nursing homes, hospitals, and residential dwelling units. The project site has commercial uses to the north, residential land uses to the east, and the Edgemoor Hospital to the south. The nearest sensitive receptor is the single-family residence located approximately 30 feet east of project site.

Construction activities associated with the proposed project would generate airborne particulates and fugitive dust, as well as a small quantity of pollutants associated with the use of construction equipment (e.g., diesel-fueled vehicles and equipment) on a short-term basis. However, construction contractors would be required to implement measures to reduce or eliminate emissions by following SDAPCD Rule 55, Fugitive Dust Control, which would require the applicant to implement measures that would reduce the amount of PM generated during the construction period. In addition, project construction emissions would be well below SDAPCD significance thresholds. Once the project is constructed, the proposed operational activities of the project would not be a source of substantial pollutant emissions. Therefore, sensitive receptors are not expected to be exposed to substantial pollutant concentrations during project construction and operation.

Odors

SDAPCD Rules 50, 51, and 55 require the project applicant to include implementation of standard control measures for fugitive dust and diesel equipment emissions. Additionally, operators of off-road vehicles (i.e., self-propelled diesel-fueled vehicles 25 horsepower and up that were not

designed to be driven on road) are required to limit vehicle idling to five minutes or less; register and label vehicles in accordance with the CARB Diesel Off-Road Online Reporting System; restrict the inclusion of older vehicles into fleets; and retire, replace, or repower older engines or install Verified Diesel Emission Control Strategies (e.g., exhaust retrofits). Additionally, SDAPCD Rule 55 regarding nuisances states: "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."

During project construction, some odors may be present due to diesel exhaust. However, these odors would be temporary and limited to the construction period. In addition, the proposed project would be required to comply with SDAPCD nuisance and odor rules. The proposed project would not include any activities or operations that would generate objectionable odors and once operational, the project would not be a source of odors. Therefore, the proposed project would not result in other emissions (such as those leading to odors) adversely affecting a substantial number of people.

GREENHOUSE GAS EMISSIONS

BACKGROUND

Global climate change (GCC) is the observed increase in the average temperature of the Earth's atmosphere and oceans in recent decades. The Earth's average near-surface atmospheric temperature rose 0.6 ± 0.2 degrees Celsius (°C) or 1.1 ± 0.4 °F in the 20th century. The prevailing scientific opinion on climate change is that most of the warming observed over the last 50 years is attributable to human activities. The increased amounts of carbon dioxide (CO_2) and other GHGs are the primary causes of the human-induced component of warming. GHGs are released by the burning of fossil fuels, land clearing, agriculture, and other activities, and lead to an increase in the greenhouse effect.[17]

GHGs are present in the atmosphere naturally, are released by natural sources, or are formed from secondary reactions taking place in the atmosphere. The following gases are widely seen as the principal contributors to human-induced GCC:

- CO_2
- Methane (CH_4)
- Nitrous oxide (N_2O)
- Hydrofluorocarbons (HFCs)
- Perfluorocarbons (PFCs)
- Sulfur hexafluoride (SF_6)

Over the last 200 years, humans have caused substantial quantities of GHGs to be released into the atmosphere. These extra emissions are increasing GHG concentrations in the atmosphere and enhancing the natural greenhouse effect, which is believed to be causing global warming. While man-made GHGs include naturally occurring GHGs such as CO_2, CH_4, and N_2O, some gases, like HFCs, PFCs, and SF_6, are completely new to the atmosphere.

Certain gases, such as water vapor, are short-lived in the atmosphere. Others remain in the atmosphere for significant periods of time, contributing to climate change in the long term. Water vapor is excluded from the list of GHGs above because it is short-lived in the atmosphere and its atmospheric concentrations are largely determined by natural processes, such as oceanic evaporation. For the purposes of this GHG emissions analysis, the term "GHGs" will refer collectively to the six gases listed above only.

[17] The temperature on Earth is regulated by a system commonly known as the "greenhouse effect." Just as the glass in a greenhouse lets heat from sunlight in and reduces the heat escaping, greenhouse gases (GHGs) like carbon dioxide, methane, and nitrous oxide in the atmosphere keep the Earth at a relatively even temperature. Without the greenhouse effect, the Earth would be a frozen globe; thus, although an excess of GHG results in global warming, the naturally occurring greenhouse effect is necessary to keep our planet at a comfortable temperature.

These gases vary considerably in terms of Global Warming Potential (GWP), which is a concept developed to compare the ability of each GHG to trap heat in the atmosphere relative to another gas. The GWP is based on several factors, including the relative effectiveness of a gas to absorb infrared radiation and the length of time the gas remains in the atmosphere ("atmospheric lifetime"). The GWP of each gas is measured relative to CO_2, the most abundant GHG. The definition of GWP for a particular GHG is the ratio of heat trapped by one unit mass of the GHG to the ratio of heat trapped by one unit mass of CO_2 over a specified time period. GHG emissions are typically measured in terms of pounds or tons of CO_2 equivalent (CO_2e). Table J shows the GWP for each type of GHG. For example, SF_6 is 23,900 times more potent at contributing to global warming than CO_2.

Table J: Global Warming Potential of Greenhouse Gases

Gas	Atmospheric Lifetime (Years)	Global Warming Potential (100-Year Time Horizon)
Carbon Dioxide (CO_2)	50–200	1
Methane (CH_4)	12	21
Nitrous Oxide (N_2O)	120	310
HFC-23	260	11,700
HFC-134a	1	140
HFC-152a	1	140
PFC: Tetrafluoromethane (CF_4)	50,000	6,500
PFC: Hexafluoromethane (C_2F_6)	10,000	9,200
Sulfur Hexafluoride (SF_6)	3,200	23,900

Source: *Second Update to the Climate Change Scoping Plan: Building on the Framework* (CARB 2017). Website: www.arb.ca.gov/our-work/programs/ab-32-climate-change-scoping-plan/2017-scoping-plan-documents (accessed June 2024).
CARB = California Air Resources Board
HFC = hydrofluorocarbon
IPCC = Intergovernmental Panel on Climate Change
PFC = perfluorocarbon

The following discussion summarizes the characteristics of the six GHGs and black carbon. Black carbon also contributes to climate change and is therefore discussed below.

Carbon Dioxide

In the atmosphere, carbon generally exists in its oxidized form as CO_2. Natural sources of CO_2 include the respiration (breathing) of humans, animals, and plants; volcanic outgassing; decomposition of organic matter; and evaporation from the oceans. Human-caused sources of CO_2 include the combustion of fossil fuels and wood, waste incineration, mineral production, and deforestation. Natural sources release approximately 150 billion tons of CO_2 each year, far outweighing the 7 billion tons of man-made emissions of CO_2 each year. Nevertheless, natural removal processes (e.g., photosynthesis by land- and ocean-dwelling plant species) cannot keep pace with this extra input of man-made CO_2; consequently, the gas is building up in the atmosphere.

In 2021, total annual CO_2 accounted for approximately 81.2 percent of California's overall GHG emissions.[18] Transportation is the single largest source of CO_2 in California, which is primarily

[18] CARB. 2022c. *GHGs Descriptions & Sources in California*. Website: ww2.arb.ca.gov/ghg-descriptions-sources (accessed October 2023).

comprised of on-road travel. Electricity production, industrial and residential sources also make important contributions to CO_2 emissions in California.

Methane

Methane is produced when organic matter decomposes in environments lacking sufficient oxygen. Natural sources include wetlands, termites, and oceans. Decomposition occurring in landfills accounts for the majority of human-generated CH_4 emissions in California and in the United States as a whole. Agricultural processes such as intestinal fermentation, manure management, and rice cultivation are also significant sources of CH_4 in California. Total annual emissions of CH_4 accounted for approximately 9.8 percent of GHG emissions in California in 2021.[19]

Nitrous Oxide

Nitrous oxide is produced naturally by a wide variety of biological sources, particularly microbial action in soils and water. Tropical soils and oceans account for the majority of natural source emissions. Nitrous oxide is a product of the reaction that occurs between nitrogen and oxygen during fuel combustion. Both mobile and stationary combustion emit N_2O, and the quantity emitted varies according to the type of fuel, technology, and pollution control device used, as well as maintenance and operating practices. Agricultural soil management and fossil fuel combustion are the primary sources of human-generated N_2O emissions in California. Nitrous oxide emissions accounted for approximately 3.4 percent of GHG emissions in California in 2021.[20]

Hydrofluorocarbons, Perfluorocarbons, and Sulfur Hexafluoride

HFCs are primarily used as substitutes for ozone-depleting substances regulated under the Montreal Protocol.[21] PFCs and SF_6 are emitted from various industrial processes, including aluminum smelting, semiconductor manufacturing, electric power transmission and distribution, and magnesium casting. There is no aluminum or magnesium production in California; however, the rapid growth in the semiconductor industry leads to greater use of PFCs. HFCs, PFCs, and SF_6 accounted for about 5.6 percent of GHG emissions in California in 2021.[22]

Black Carbon

Black carbon is the most strongly light-absorbing component of PM formed by burning fossil fuels such as coal, diesel, and biomass. Black carbon is emitted directly into the atmosphere in the form of $PM_{2.5}$ and is the most effective form of PM, by mass, at absorbing solar energy. Per unit of mass in the atmosphere, black carbon can absorb 1 million times more energy than CO_2. Black carbon contributes to climate change both directly (e.g., absorbing sunlight) and indirectly (e.g., affecting cloud formation). However, because black carbon is short-lived in the atmosphere, it can be difficult to quantify its effect on global warming.

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19 CARB. 2022c. *GHGs Descriptions & Sources in California*. Website: ww2.arb.ca.gov/ghg-descriptions-sources (accessed October 2023).

20 Ibid.

21 The Montreal Protocol is an international treaty that was approved on January 1, 1989, and was designated to protect the ozone layer by phasing out the production of several groups of halogenated hydrocarbons believed to be responsible for ozone depletion.

22 Ibid.

Most U.S. emissions of black carbon come from mobile sources (52 percent), particularly from diesel-fueled vehicles. The other major source of black carbon is open biomass burning, including wildfires, although residential heating and industry also contribute. The CARB estimates that the annual black carbon emissions in California will be reduced approximately 50 percent below 2013 levels by 2030.[23]

Greenhouse Gas Emissions Inventory

An emissions inventory that identifies and quantifies the primary human-generated sources and sinks of GHGs is a well-recognized and useful tool for addressing climate change. This section summarizes the latest information on global, United States, and California GHG emission inventories.

Global Emissions

Worldwide emissions of GHGs in 2021 totaled 19.2 billion metric tons of CO_2e. Global estimates are based on country inventories developed as part of the programs of the United Nations Framework Convention on Climate Change.[24]

United States Emissions

In 2022, the year for which the most recent data are available, the United States emitted about 6,343 million metric tons (MMT) of carbon dioxide equivalent (CO_2e). Overall, emissions in 2022 increased by 1 percent relative to the 2021 total GHG emissions. This increase in total GHG emissions was driven by fossil fuel combustion due primarily to increased energy use, due in part to the continued rebound in econimic acticity after the height of the COVID-19 pandemic. However, GHG emissions in 2022 are 17 percent below those of 2005 levels. Of the five major sectors—residential and commercial, agricultural, industry, transportation, and electricity generation—transportation accounted for the highest amount of GHG emissions in 2022 (approximately 28 percent), with electricity generation second at 25 percent and emissions from industry third at 23 percent.[25]

State of California Emissions

The State emitted 381.3 MMT CO_2e emissions in 2021, 12.6 MMT CO_2e higher than 2020 levels but 23.1 MMT CO_2e below the 2019 levels.[26] The California Air Resources Board (CARB) estimates that transportation was the source of 38 percent of the State's GHG emissions in 2021, which is a 7.4 percent higher than the 2020 emissions. This increase was most likely from passenger vehicles

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23 CARB. 2017b. *Short-Lived Climate Pollutant Reduction Strategy.* March. Website: https://ww2.arb.ca.gov/sites/default/files/2020-07/final_SLCP_strategy.pdf (accessed June 2024).

24 United Nations Framework Convention on Climate Change (UNFCCC). 2021. GHG Data from UNFCCC. Website: unfccc.int/process-and-meetings/transparency-and-reporting/greenhouse-gas-data/ghg-data-unfccc/ghg-data-from-unfccc (accessed June 2024).

25 USEPA. 2022. Inventory of U.S. Greenhouse Gas Emissions and Sinks. Website: https://www.epa.gov/ghgemissions/inventory-us-greenhouse-gas-emissions-and-sinks (accessed June 2024).

26 CARB. 2023. *California Greenhouse Gas Emissions for 2000 to 2021, Trends of Emissions and Other Indicators Report*. Website: https://ww2.arb.ca.gov/sites/default/files/2023-12/2000_2021_ghg_inventory_trends.pdf (accessed June 2024).

whose activity and emissions rebounded after the COVID-19 pandemic. The next largest sources included industrial sources at approximately 19 percent and electricity generation at 16 percent. The remaining sources of GHG emissions were commercial and residential activities at 10 percent, agriculture at 8 percent, high GWP at 6 percent, and waste at 2 percent.[27]

City of Santee Emissions

The City of Santee developed community inventories for the years 2005, 2008, 2012, and 2013 and municipal inventories for the years 2005 and 2013. The 2005 inventory year is considered the baseline year. Emissions increase 18 percent from 2005 to 2013, from 339,972 MT CO_2e to 402,574 MT CO_2e. The transportation sector, including on-road and off-road emissions, was the largest contributor in all four inventory years. The residential and commercial energy sectors were the second largest contributors. In addition, the City's business-as-usual (BAU) emissions for 2020 are estimated to be 432,982 MT CO_2e, or a 27 percent increase from baseline emissions. The 2030 BAU emissions are estimated to be 486,170 MT CO_2e, or a 43 percent increase from 2005 level. By 2035, emissions are estimated to increase 51.6 percent from baseline level to 515,462 MT CO_2e.[28] .

Regulatory Setting

This section describes regulations related to GHGs at the federal, State, and local level.

Federal Regulations

The United States has historically had a voluntary approach to reducing GHG emissions. However, on April 2, 2007, the United States Supreme Court ruled that the USEPA has the authority to regulate CO_2 emissions under the CAA.

While there currently are no adopted federal regulations for the control or reduction of GHG emissions, the USEPA commenced several actions in 2009 to implement a regulatory approach to GCC, including the 2009 USEPA final rule for mandatory reporting of GHGs from large GHG emission sources in the United States. Additionally, the USEPA Administrator signed an endangerment finding action in 2009 under the CAA, finding that six GHGs (CO_2, CH_4, N_2O, HFCs, PFCs, and SF_6) constitute a threat to public health and welfare and that the combined emissions from motor vehicles cause and contribute to GCC, leading to national GHG emission standards.

State Regulations

CARB is the lead agency for implementing climate change regulations in the State. Since its formation, CARB has worked with the public, the business sector, and local governments to find solutions to California's air pollution problems. Key efforts by the State are described below.

Assembly Bill 32 (2006), California Global Warming Solutions Act. California's major initiative for reducing GHG emissions is AB 32, passed by the State legislature on August 31, 2006. This effort set a GHG emission reduction target to reduce GHG emissions to 1990 levels by 2020. The CARB has

[27] Ibid.

[28] City of Santee. 2019. Sustainable Santee Plan. December. Website: https://www.cityofsanteeca.gov/departments/city-clerk/document-central/city-clerk%5Ccouncil-agendas%5C2019%5C2019-08-28-item-10-sustainable-santee-plan.pdf (accessed June 2024).

established the level of GHG emissions in 1990 at 427 MMT CO_2e. The emissions target of 427 MMT CO_2e requires the reduction of 169 MMT from the State's projected business-as-usual 2020 emissions of 596 MMT. AB 32 requires the CARB to prepare a Scoping Plan that outlines the main State strategies for meeting the 2020 deadline and to reduce GHGs that contribute to global climate change. The CARB approved the Scoping Plan on December 11, 2008. It contains the main strategies California will implement to achieve the reduction of approximately 169 MMT CO_2e, or approximately 30 percent, from the State's projected 2020 emission level of 596 MMT CO_2e under a business-as-usual scenario (this is a reduction of 42 MMT CO_2e, or almost 10 percent from 2002–2004 average emissions). The Scoping Plan also includes CARB-recommended GHG reductions for each emissions sector of the State's GHG inventory. The Scoping Plan calls for the largest reductions in GHG emissions to be achieved by implementing the following measures and standards:

- Improved emissions standards for light-duty vehicles (estimated reduction of 31.7 MMT CO_2e);
- The Low-Carbon Fuel Standard (15.0 MMT CO_2e);
- Energy efficiency measures in buildings and appliances and the widespread development of combined heat and power systems (26.3 MMT CO_2e); and
- A renewable portfolio standard for electricity production (21.3 MMT CO_2e).

The CARB approved the First Update to the Climate Change Scoping Plan on May 22, 2014. The First Update identifies opportunities to leverage existing and new funds to further drive GHG emission reductions through strategic planning and targeted low carbon investments. The First Update defines CARB climate change priorities until 2020 and sets the groundwork to reach long-term goals set forth in Executive Orders (EOs) S-3-05 and B-16-2012. The Update highlights California's progress toward meeting the "near-term" 2020 GHG emission reduction goals as defined in the initial Scoping Plan. It also evaluates how to align the State's "longer-term" GHG reduction strategies with other State policy priorities for water, waste, natural resources, clean energy, transportation, and land use. The CARB released a second update to the Scoping Plan, the 2017 Scoping Plan,[29] to reflect the 2030 target set by EO B-30-15 and codified by SB 32.

The 2022 Scoping Plan[30] was approved in December 2022 and assesses progress towards achieving the SB 32 2030 target and lay out a path to achieve carbon neutrality no later than 2045. The 2022 Scoping Plan focuses on outcomes needed to achieve carbon neutrality by assessing paths for clean technology, energy deployment, natural and working lands, and others, and is designed to meet the State's long-term climate objectives and support a range of economic, environmental, energy security, environmental justice, and public health priorities.

The 2022 Scoping Plan focuses on building clean energy production and distribution infrastructure for a carbon-neutral future, including transitioning existing energy production and transmission infrastructure to produce zero-carbon electricity and hydrogen, and utilizing biogas resulting from

29 CARB. 2017a. *California's 2017 Climate Change Scoping Plan*. November. Website: ww2.arb.ca.gov/sites/default/files/classic/cc/scopingplan/scoping_plan_2017.pdf (accessed June 2024).

30 CARB. 2022a. *2022 Scoping Plan Update*. Website: https://ww2.arb.ca.gov/sites/default/files/2022-12/2022-sp.pdf (accessed June 2024).

wildfire management or landfill and dairy operations, among other substitutes. The 2022 Scoping Plan states that in almost all sectors, electrification will play an important role. The 2022 Scoping Plan evaluates clean energy and technology options and the transition away from fossil fuels, including adding four times the solar and wind capacity by 2045 and about 1,700 times the amount of current hydrogen supply. As discussed in the 2022 Scoping Plan, EO N-79-20 requires that all new passenger vehicles sold in California will be zero-emission by 2035, and all other fleets will have transitioned to zero-emission as fully possible by 2045, which will reduce the percentage of fossil fuel combustion vehicles

Senate Bill 375 (2008). Signed into law on October 1, 2008, Senate Bill (SB) 375 supplements GHG reductions from new vehicle technology and fuel standards with reductions from more efficient land use patterns and improved transportation. Under the law, CARB approved GHG reduction targets in February 2011 for California's 18 federally designated regional planning bodies, known as Metropolitan Planning Organizations (MPOs). CARB may update the targets every 4 years and must update them every 8 years. MPOs in turn must demonstrate how their plans, policies, and transportation investments meet the targets set by CARB through Sustainable Community Strategies (SCSs). The SCSs are included with the Regional Transportation Plan (RTP), a report required by State law. However, if an MPO finds that its SCS will not meet the GHG reduction target, it may prepare an Alternative Planning Strategy (APS). The APS identifies the impediments to achieving the targets.

Executive Order B-30-15 (2015). Governor Jerry Brown signed EO B-30-15 on April 29, 2015, which added the following immediate target:

- GHG emissions should be reduced to 40 percent below 1990 levels by 2030.

All State agencies with jurisdiction over sources of GHG emissions were directed to implement measures to achieve reductions of GHG emissions to meet the 2030 and 2050 targets. CARB was directed to update the AB 32 Scoping Plan to reflect the 2030 target and is therefore moving forward with the update process. The midterm target is critical to help frame the suite of policy measures, regulations, planning efforts, and investments in clean technologies and infrastructure needed to continue reducing emissions.

Senate Bill 350 (2015) Clean Energy and Pollution Reduction Act. SB 350, signed by Governor Jerry Brown on October 7, 2015, updates and enhances AB 32 by introducing the following set of objectives in clean energy, clean air, and pollution reduction for 2030:

- Raise California's RPS from 33 percent to 50 percent.
- Increase energy efficiency in buildings by 50 percent by the year 2030.

The 50 percent renewable energy standard will be implemented by the California Public Utilities Commission for private utilities and by the California Energy Commission for municipal utilities. Each utility must submit a procurement plan showing it will purchase clean energy to displace other nonrenewable resources. The 50 percent increase in energy efficiency in buildings must be achieved through the use of existing energy efficiency retrofit funding and regulatory tools already available to State energy agencies under the existing law. The addition made by this legislation requires State

energy agencies to plan for and implement those programs in a manner that achieves the energy efficiency target.

Senate Bill 32, California Global Warming Solutions Act of 2016, and Assembly Bill 197. In summer 2016, the State legislature passed and the Governor signed SB 32 and AB 197. SB 32 affirms the importance of addressing climate change by codifying into statute the GHG emissions reductions target of at least 40 percent below 1990 levels by 2030 contained in Governor Brown's April 2015 EO B-30-15. SB 32 builds on AB 32 and keeps us on the path toward achieving the State's 2050 objective of reducing emissions to 80 percent below 1990 levels, consistent with an IPCC analysis of the emissions trajectory that would stabilize atmospheric GHG concentrations at 450 ppm CO_2e and reduce the likelihood of catastrophic impacts from climate change.

AB 197, the companion bill to SB 32, provides additional direction to CARB related to the adoption of strategies to reduce GHG emissions. Additional direction in AB 197 meant to provide easier public access to air emissions data collected by CARB was posted in December 2016.

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

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

Title 24, Building Efficiencies Standards, and the California Green Building Standards Code. In November 2008, the California Building Standards Commission established the California Green Building Standards Code (CALGreen Code) (CCR, Title 24, Part 11), which sets performance standards for residential and nonresidential development to reduce environmental impacts and encourage sustainable construction practices. The CALGreen Code addresses energy efficiency, water conservation, material conservation, planning and design, and overall environmental quality. The CALGreen Code was most recently updated in 2022 to include new mandatory measures for residential and nonresidential uses. The new measures took effect on January 1, 2023.

Assembly Bill 1279.AB 1279 was signed in September of 2022 and codifies the State goals of achieving net carbon neutrality by 2045 and maintaining net negative GHG emissions thereafter. This bill also requires California to reduce statewide GHG emissions by 85 percent compared to 1990 levels by 2045 and directs CARB to work with relevant state agencies to achieve these goals.

Regional and Local Regulations

San Diego County Air Pollution Control District. The SDAPCD has not adopted quantitative emission-based thresholds of significance for GHG emissions under CEQA.

City of Santee General Plan

The Santee General Plan includes goals and policies from the land use element.

- **Objective 2.0:** Allow for the development of a wide range of housing types in the City.

  Policy 2.1: The City should promote the use of innovative site planning techniques that contribute towards provision of a variety of residential product styles and designs.

  Policy 2.3: The City should encourage planned residential and/or planned unit developments that provide adequate open space, recreational facilities, off-street parking, interior circulation patterns and other amenities and facilities.

  Policy 5.3: The City shall ensure that industrial development creates no significant off-site impacts related to access and circulation, noise, dust, odors, visual features and hazardous materials, that cannot be adequately mitigated.

- **Objective 6.0:** Ensure that natural and man-induced hazards are adequately addressed in the location and intensity of development in the City.

  Policy 6.2: The City should promote the use of innovative site planning to avoid on-site hazards and minimize risk levels.

City of Santee Sustainable Santee Plan. The City of Santee developed its SSP in 2019.[31] To achieve consistency with federal and State GHG reduction goals, the SSP specified that the City would reduce emissions to 1990 levels by 2020. This target was calculated as a 15 percent decrease from 2005 levels, as recommended in the AB 32 Scoping Plan. The City developed an interim goal for 2030, which was to reduce emissions to 40 percent below 2005 levels. The City also developed a longer-term goal for 2035, which is to reduce emissions to 49 percent below 2005 levels. The interim and longer-term goals would put the City on a path consistent with the State's long-term goal to achieve Statewide carbon neutrality (zero net emissions) by 2045. Therefore, If a project is consistent with the SSP, then it can be assumed that the project would be consistent with reduction targets from the CARB Scoping Plan Update and State targets for reducing GHG emissions to 40 percent below 1990 levels by 2030 and 80 percent below 1990 levels by 2050.

METHODOLOGY

GHG emissions associated with the proposed project would occur over the short term from construction activities, consisting primarily of emissions from equipment exhaust. There would also be minimal long-term GHG emissions associated with project-related vehicular trips or other

[31] City of Santee. 2019. Sustainable Santee Plan. December. Website: www.cityofsanteeca.gov/services/development-services/sustainable-santee-plan-ssp (accessed June 2024).

sources. Recognizing that the field of GHG analysis is rapidly evolving, the approaches advocated most recently indicate that lead agencies should calculate, or estimate, emissions from vehicular traffic, energy consumption, water conveyance and treatment, waste generation, construction activities, and any other significant source of emissions within the project area.

THRESHOLDS OF SIGNIFICANCE

The threshold of significance used in this analysis is described below.

Generation of Greenhouse Gas Emissions

The SSP Project Consistency Checklist is a tool for development projects to demonstrate consistency with the SSP, which is a qualified GHG emissions reduction plan in accordance with CEQA Guidelines Section 15183.5 for determining whether a project would result in the generation of substantial GHG emissions. This Checklist is part of the SSP implementation and monitoring process and supports the achievement of individual GHG reduction measures as well as the City's overall GHG reduction goals. In addition, this Checklist furthers the City's sustainability goals and policies that encourage sustainable development and aims to conserve and reduce the consumption of resources, such as energy and water, among others.

Projects that meet the requirements of this Checklist will be deemed to be consistent with the SSP and will be found to have a less than significant contribution to cumulative GHG (i.e., the project's incremental contribution to cumulative GHG effects is not cumulatively considerable), pursuant to CEQA Guidelines Sections 15064(h)(3), 15130(d), and 15183(b). If a project is consistent with the projections in the City's SSP, then its associated growth in terms of GHG emissions was accounted for in the SSP projections and would not increase emissions beyond what is anticipated in the SSP or inhibit the City from reaching its reduction targets. Additionally, if a project is consistent with the projections in the SSP, its GHG emissions would not conflict with an applicable plan adopted for the purpose of reducing the emissions of GHGs.

Threshold for Consistency with Other GHG Plans

If a project is consistent with the SSP, then it can be assumed that the project would be consistent with reduction targets from CARB Scoping Plan and State targets for reducing GHG emissions to 40 percent below 1990 levels by 2030 and 80 percent below 1990 levels by 2050.

IMPACTS AND MITIGATION MEASURES

This section discusses the proposed project's impacts related to the release of GHG emissions.

Generation of Greenhouse Gas Emissions

The proposed project would generate GHG emissions during both construction and operational phases of the proposed project, as discussed below.

Construction Greenhouse Gas Emissions

Construction activities associated with the proposed project would produce combustion emissions from various sources. During construction, GHGs would be emitted through the operation of

construction equipment and from worker and builder supply vendor vehicles, each of which typically use fossil-based fuels to operate. The combustion of fossil-based fuels creates GHGs such as CO_2, CH_4, and N_2O. Furthermore, CH_4 is emitted during the fueling of heavy equipment. Exhaust emissions from on-site construction activities would vary daily as construction activity levels change.

The SDAPCD does not have an adopted threshold of significance for construction-related GHG emissions. However, lead agencies are required to quantify and disclose GHG emissions that would occur during construction. In addition, other air districts recommend amortizing GHG emissions over the life of the project based on the total GHG emissions for construction activities divided by the project life (i.e., 30 years) then adding that number to the annual operational phase GHG emissions.

CalEEMod was used to calculate emissions from on-site construction equipment and emissions from worker and vehicle trips to the site. Table K presents the estimated GHG emissions by each calendar year and amortized emissions for the proposed project.

Table K: Project Construction Greenhouse Gas Emissions

Construction Phase	Greenhouse Gas Emissions, CO_2e (Metric Tons per Year)
2025	212.3
2026	257.5
Total Project Construction GHG Emissions	**469.8**
Construction Emissions Amortized over 30 years	**15.7**

Source: Compiled by LSA (June 2024).
Note: Numbers may appear to not sum correctly due to rounding.
CO_2e = carbon dioxide equivalent

As indicated in Table K, project construction would result in total emissions of 469.8 MT CO_2e, which would be amortized to an annual rate of 15.7 MT of CO_2e over 30 years.

Operational Greenhouse Gas Emissions

Long-term operation of the proposed project would generate GHG emissions from area, mobile, waste, and water sources as well as indirect emissions from sources associated with energy consumption. Mobile-source GHG emissions would include project-generated vehicle trips associated with trips to the proposed project. Area-source emissions would be associated with activities such as landscaping and maintenance on the project site, and other sources. Waste source emissions generated by the proposed project include energy generated by landfilling and other methods of disposal related to transporting and managing project-generated waste. In addition, water source emissions associated with the proposed project are generated by water supply and conveyance, water treatment, water distribution, and wastewater treatment.

CalEEMod was used to calculate the long-term operational emissions associated with the project. Table L shows the calculated GHG emissions for the proposed project. Motor vehicle emissions are the largest source of GHG emissions for the project at approximately 77 percent of the project total. Energy use is the next largest category at approximately 12 percent. Area sources are about 8

percent of the total emissions. Waste and water sources are about 1 percent and 2 percent of the total emissions respectively.

Table L: GHG Emissions (Metric Tons Per Year)

Emission Type	Operational Emissions				
	CO_2	CH_4	N_2O	CO_2e	Percentage of Total
Mobile Source	414.6	<0.1	<0.1	421.0	77
Area Source	42.2	<0.1	<0.1	42.2	8
Energy Source	67.9	<0.1	<0.1	68.1	12
Water Source	4.4	0.1	<0.1	6.3	1
Waste Source	3.5	0.3	0.0	12.2	2
Total Operational Emissions				**549.8**	-
Amortized Construction Emissions				15.7	-
Total Annual Emissions				**565.5**	-

Source: Compiled By LSA (June 2024).
Note: values may appear incorrect due to rounding.
CO_2 = carbon dioxide
CO_2e = carbon dioxide equivalent
CH_4 = methane
GHG = Greenhouse Gas
N_2O = nitrous oxide

As discussed above, projects that meet the requirements of the SSP Checklist will be deemed to be consistent with the SSP and will be found to have a less than significant contribution to cumulative GHG (i.e., the project's incremental contribution to cumulative GHG effects is not cumulatively considerable), pursuant to CEQA Guidelines Sections 15064(h)(3), 15130(d), and 15183(b). This Checklist has been developed as part of the SSP implementation and monitoring process and will support the achievement of individual GHG reduction measures as well as the City's overall GHG reduction goals. In addition, this Checklist will further the City's sustainability goals and policies that encourage sustainable development and aim to conserve and reduce the consumption of resources, such as energy and water, among others. As shown in Appendix B, SSP Checklist, the proposed project would be consistent with the applicable goals related to energy efficiency, VMT reduction, solid waste, and clean energy from the SSP. Therefore, the proposed project would not generate GHG emissions, either directly or indirectly, that may have a significant effect on the environment and impacts would be less than significant.

Consistency with Greenhouse Gas Reduction Plans

As previously mentioned, the City adopted its SSP in January 2019. Through the SSP, the City developed an interim goal for 2030, which was to reduce emissions to 40 percent below 2005 levels by 2030 and 49 percent below the 2005 levels by 2035. The 2030 interim and 2035 longer-term goals would put the City on a path toward the State's long-term goal to reduce emissions 80 percent below 1990 levels by 2050. As demonstrated above, the proposed project would be consistent with the applicable goals outlined in the SSP checklist and would therefore be in line with these reduction targets.

The following discussion evaluates the proposed project according to the goals of the 2022 Scoping Plan, EO B-30-15, SB 32, and AB 197.

EO B-30-15 added the immediate target of reducing GHG emissions to 40 percent below 1990 levels by 2030. The City's SSP 2030 interim and 2035 goals would put the City on a path toward the State's long-term goal to reduce emissions 80 percent below 1990 levels by 2050. Additionally, SB 32 affirms the importance of addressing climate change by codifying into statute the GHG emissions reduction target of at least 40 percent below 1990 levels by 2030 contained in EO B-30-15. SB 32 builds on AB 32 and keeps California on the path toward achieving the State's 2050 objective of reducing emissions to 80 percent below 1990 levels. The companion bill to SB 32, AB 197, provides additional direction to CARB related to the adoption of strategies to reduce GHG emissions.

In addition, the 2022 Scoping Plan assesses progress toward the statutory 2030 target, while laying out a path to achieving carbon neutrality no later than 2045. The 2022 Scoping Plan focuses on outcomes needed to achieve carbon neutrality by assessing paths for clean technology, energy deployment, natural and working lands, and others and is designed to meet the State's long-term climate objectives and support a range of economic, environmental, energy security, environmental justice, and public health priorities.

Energy-efficient measures are intended to maximize energy-efficiency building and appliance standards, pursue additional efficiency efforts including new technologies and new policy and implementation mechanisms, and pursue comparable investment in energy efficiency from all retail providers of electricity in California. In addition, these measures are designed to expand the use of green building practices to reduce the carbon footprint of California's new and existing inventory of buildings. As demonstrated in the preceding section, the proposed project would be consistent with the City's SSP Consistency Checklist. The Consistency Checklist provides a streamlined review process for new development projects that are subject to discretionary review pursuant to CEQA. Consistent with the *State CEQA Guidelines*, Section 15183.5, if a project is consistent with an adopted qualified Greenhouse Gas Reduction Strategy, it can be presumed that the project would not have significant GHG emission impacts. The City's SSP meets the requirements of *State CEQA Guidelines*, Section 15183.5. Therefore, the proposed project would support State goals aimed to conserve and reduce consumption of resources (e.g., energy and water), including the Scoping Plan and the incorporation of climate action measures from a CEQA-qualified GHG Reduction Plan. In addition, the proposed project would be required to comply with the latest Title 24 standards of the CCR, established by the CEC, regarding energy conservation and green building standards. Therefore, the proposed project would comply with applicable energy measures.

Water conservation and efficiency measures are intended to continue efficiency programs and use cleaner energy sources to move and treat water. Increasing the efficiency of water transport and reducing water use would reduce GHG emissions. As noted above, the project would be required to comply with the 2022 CALGreen standards, which includes a variety of different measures, including reduction of wastewater and water use. In addition, the proposed project would be required to comply with the California Model Water Efficient Landscape Ordinance. Therefore, the proposed project would not conflict with any of the water conservation and efficiency measures.

The goal of transportation and motor vehicle measures is to develop regional GHG emission reduction targets for passenger vehicles. Specific regional emission targets for transportation emissions would not directly apply to the proposed project. The second phase of Pavley II (LEV III) standards will reduce GHG emissions from new cars by 34 percent from 2016 levels by 2025,

resulting in a 3 percent decrease in average vehicle emissions for all vehicles by 2020. Vehicles traveling to the project site would comply with the Pavley II (LEV III) Advanced Clean Cars Program. Therefore, the proposed project would not conflict with the identified transportation and motor vehicle measures.

Therefore, the proposed project is consistent with the applicable measures within the City's SSP and would comply with existing State regulations adopted to achieve the overall GHG emission reduction goals identified in AB 32, the Scoping Plan, EO B-30-15, SB 32, AB 197, and AB 1279. Therefore, the proposed project would be consistent with applicable plans and programs designed to reduce GHG emissions. Therefore, the proposed project would not conflict with plans, policies, or regulations adopted for the purpose of reducing GHG emissions.

CONCLUSION

Based on the analysis presented above, construction and operation of the proposed project would not result in the generation of criteria air pollutants that would exceed SDAPCD thresholds and mitigation measures are not required. Compliance with SDAPCD Rule 55: Fugitive Dust Control would further reduce construction dust impacts. The project would also be consistent with the applicable air quality plans. The proposed project is not expected to produce significant emissions that would affect nearby sensitive receptors. The project would also not result in objectionable odors affecting a substantial number of people. GHG emissions released during construction and operation of the project are estimated to be lower than identified thresholds. The proposed project would be consistent with the City's SSP and would not conflict with the provisions of the California Scoping Plan, or any other State or regional plan, policy or regulation of an agency adopted for the purpose of reducing GHG emissions. Therefore, the proposed project's incremental contribution to cumulative air quality or GHG emissions would be less than significant.

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APPENDIX A

CALEEMOD SUMMARY REPORT

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Park Center Townhomes - 20241698 Custom Report

Table of Contents

8. User Changes to Default Data

1. Basic Project Information

1.1. Basic Project Information

Data Field	Value
Project Name	Park Center Townhomes - 20241698
Construction Start Date	6/3/2025
Operational Year	2027
Lead Agency	—
Land Use Scale	Project/site
Analysis Level for Defaults	County
Windspeed (m/s)	2.60
Precipitation (days)	7.60
Location	32.85377719278359, -116.97472946316209
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	2022.1.1.24

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	53.0	Dwelling Unit	2.45	85,648	15,420	0.00	148	—

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.	ROG	NOx	CO	SO2	PM10E	PM10D	PM10T	PM2.5E	PM2.5D	PM2.5T	BCO2	NBCO2	CO2T	CH4	N2O	R	CO2e
Daily, Summer (Max)	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Unmit.	1.61	17.7	16.3	0.04	0.69	3.55	4.25	0.64	1.55	2.19	—	5,259	5,259	0.25	0.45	6.25	5,406
Daily, Winter (Max)	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Unmit.	12.9	10.9	13.5	0.02	0.41	0.36	0.77	0.37	0.09	0.46	—	2,685	2,685	0.11	0.05	0.04	2,703
Average Daily (Max)	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Unmit.	2.24	6.05	7.85	0.01	0.21	0.34	0.53	0.20	0.12	0.29	—	1,544	1,544	0.06	0.04	0.40	1,555
Annual (Max)	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Unmit.	0.41	1.10	1.43	< 0.005	0.04	0.06	0.10	0.04	0.02	0.05	—	256	256	0.01	0.01	0.07	257
Exceeds (Daily Max)	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Threshold	75.0	250	550	250	—	—	100	—	—	55.0	—	—	—	—	—	—	—
Unmit.	No	No	No	No	Yes	—	No	—	—	No	—	—	—	—	—	—	—

Exceeds (Average Daily)	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Threshold	75.0	250	550	250	—	—	100	—	—	55.0	—	—	—	—	—	—	—
Unmit.	No	No	No	No	Yes	—	No	—	—	No	—	—	—	—	—	—	—

2.2. Construction Emissions by Year, Unmitigated

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

Year	ROG	NOx	CO	SO2	PM10E	PM10D	PM10T	PM2.5E	PM2.5D	PM2.5T	BCO2	NBCO2	CO2T	CH4	N2O	R	CO2e
Daily - Summer (Max)	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
2025	1.61	17.7	16.3	0.04	0.69	3.55	4.25	0.64	1.55	2.19	—	5,259	5,259	0.25	0.45	6.25	5,406
2026	1.32	10.4	13.5	0.02	0.36	0.36	0.72	0.33	0.09	0.42	—	2,695	2,695	0.11	0.05	1.58	2,714
Daily - Winter (Max)	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
2025	1.40	10.9	13.5	0.02	0.41	0.36	0.77	0.37	0.09	0.46	—	2,685	2,685	0.11	0.05	0.04	2,703
2026	12.9	10.4	13.3	0.02	0.36	0.36	0.72	0.33	0.09	0.42	—	2,675	2,675	0.11	0.05	0.04	2,693
Average Daily	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
2025	0.59	4.93	5.71	0.01	0.19	0.34	0.53	0.17	0.12	0.29	—	1,268	1,268	0.06	0.04	0.40	1,282
2026	2.24	6.05	7.85	0.01	0.21	0.21	0.42	0.20	0.05	0.24	—	1,544	1,544	0.06	0.03	0.39	1,555
Annual	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
2025	0.11	0.90	1.04	< 0.005	0.03	0.06	0.10	0.03	0.02	0.05	—	210	210	0.01	0.01	0.07	212
2026	0.41	1.10	1.43	< 0.005	0.04	0.04	0.08	0.04	0.01	0.04	—	256	256	0.01	< 0.005	0.06	257

2.4. Operations Emissions Compared Against Thresholds

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

Un/Mit.	ROG	NOx	CO	SO2	PM10E	PM10D	PM10T	PM2.5E	PM2.5D	PM2.5T	BCO2	NBCO2	CO2T	CH4	N2O	R	CO2e
Daily, Summer (Max)	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Unmit.	3.91	2.02	14.1	0.03	0.10	2.26	2.36	0.10	0.57	0.67	24.7	4,159	4,183	2.65	0.11	8.49	4,293
Daily, Winter (Max)	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Unmit.	3.62	2.09	10.6	0.03	0.10	2.26	2.35	0.10	0.57	0.67	24.7	4,036	4,061	2.66	0.12	0.82	4,164
Average Daily (Max)	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Unmit.	3.69	1.40	11.8	0.03	0.04	2.25	2.29	0.04	0.57	0.61	24.7	3,192	3,217	2.64	0.12	4.01	3,322
Annual (Max)	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Unmit.	0.67	0.26	2.15	< 0.005	0.01	0.41	0.42	0.01	0.10	0.11	4.09	528	533	0.44	0.02	0.66	550
Exceeds (Daily Max)	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Threshold	75.0	250	550	250	—	—	100	—	—	55.0	—	—	—	—	—	—	—
Unmit.	No	No	No	No	—	—	No	—	—	No	—	—	—	—	—	—	—
Exceeds (Average Daily)	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Threshold	75.0	250	550	250	—	—	100	—	—	55.0	—	—	—	—	—	—	—
Unmit.	No	No	No	No	—	—	No	—	—	No	—	—	—	—	—	—	—
Exceeds (Annual)	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Threshold	13.7	40.0	100	40.0	—	—	15.0	—	—	10.0	—	—	—	—	—	—	—
Unmit.	No	No	No	No	—	—	No	—	—	No	—	—	—	—	—	—	—

2.5. Operations Emissions by Sector, Unmitigated

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

Sector	ROG	NOx	CO	SO2	PM10E	PM10D	PM10T	PM2.5E	PM2.5D	PM2.5T	BCO2	NBCO2	CO2T	CH4	N2O	R	CO2e
Daily, Summer (Max)	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Mobile	1.61	1.01	10.7	0.03	0.02	2.26	2.28	0.02	0.57	0.59	—	2,602	2,602	0.13	0.10	7.87	2,643
Area	2.30	0.91	3.38	0.01	0.07	—	0.07	0.07	—	0.07	0.00	1,124	1,124	0.02	< 0.005	—	1,125
Energy	0.01	0.09	0.04	< 0.005	0.01	—	0.01	0.01	—	0.01	—	410	410	0.03	< 0.005	—	412
Water	—	—	—	—	—	—	—	—	—	—	3.57	22.9	26.4	0.37	0.01	—	38.2
Waste	—	—	—	—	—	—	—	—	—	—	21.1	0.00	21.1	2.11	0.00	—	74.0
Refrig.	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	0.61	0.61
Total	3.91	2.02	14.1	0.03	0.10	2.26	2.36	0.10	0.57	0.67	24.7	4,159	4,183	2.65	0.11	8.49	4,293
Daily, Winter (Max)	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Mobile	1.58	1.11	10.2	0.02	0.02	2.26	2.28	0.02	0.57	0.59	—	2,487	2,487	0.14	0.11	0.20	2,523
Area	2.03	0.88	0.37	0.01	0.07	—	0.07	0.07	—	0.07	0.00	1,116	1,116	0.02	< 0.005	—	1,117
Energy	0.01	0.09	0.04	< 0.005	0.01	—	0.01	0.01	—	0.01	—	410	410	0.03	< 0.005	—	412
Water	—	—	—	—	—	—	—	—	—	—	3.57	22.9	26.4	0.37	0.01	—	38.2
Waste	—	—	—	—	—	—	—	—	—	—	21.1	0.00	21.1	2.11	0.00	—	74.0
Refrig.	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	0.61	0.61
Total	3.62	2.09	10.6	0.03	0.10	2.26	2.35	0.10	0.57	0.67	24.7	4,036	4,061	2.66	0.12	0.82	4,164
Average Daily	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Mobile	1.56	1.10	10.2	0.02	0.02	2.25	2.26	0.02	0.57	0.59	—	2,504	2,504	0.13	0.11	3.40	2,543
Area	2.12	0.21	1.57	< 0.005	0.02	—	0.02	0.02	—	0.02	0.00	255	255	< 0.005	< 0.005	—	255
Energy	0.01	0.09	0.04	< 0.005	0.01	—	0.01	0.01	—	0.01	—	410	410	0.03	< 0.005	—	412
Water	—	—	—	—	—	—	—	—	—	—	3.57	22.9	26.4	0.37	0.01	—	38.2

Waste	—	—	—	—	—	—	—	—	—	—	21.1	0.00	21.1	2.11	0.00	—	74.0
Refrig.	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	0.61	0.61
Total	3.69	1.40	11.8	0.03	0.04	2.25	2.29	0.04	0.57	0.61	24.7	3,192	3,217	2.64	0.12	4.01	3,322
Annual	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Mobile	0.28	0.20	1.85	< 0.005	< 0.005	0.41	0.41	< 0.005	0.10	0.11	—	415	415	0.02	0.02	0.56	421
Area	0.39	0.04	0.29	< 0.005	< 0.005	—	< 0.005	< 0.005	—	< 0.005	0.00	42.2	42.2	< 0.005	< 0.005	—	42.2
Energy	< 0.005	0.02	0.01	< 0.005	< 0.005	—	< 0.005	< 0.005	—	< 0.005	—	67.9	67.9	< 0.005	< 0.005	—	68.1
Water	—	—	—	—	—	—	—	—	—	—	0.59	3.79	4.38	0.06	< 0.005	—	6.33
Waste	—	—	—	—	—	—	—	—	—	—	3.50	0.00	3.50	0.35	0.00	—	12.2
Refrig.	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	0.10	0.10
Total	0.67	0.26	2.15	< 0.005	0.01	0.41	0.42	0.01	0.10	0.11	4.09	528	533	0.44	0.02	0.66	550

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	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	1.19	10.9	11.0	0.03	0.47	—	0.47	0.43	—	0.43	—	2,717	2,717	0.11	0.02	—	2,726
Dust From Material Movement	—	—	—	—	—	0.62	0.62	—	0.07	0.07	—	—	—	—	—	—	—
Onsite truck	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	—	0.00	0.00	0.00	0.00	0.00	0.00

Daily, Winter (Max)	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Average Daily	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Off-Road Equipment	0.03	0.30	0.30	< 0.005	0.01	—	0.01	0.01	—	0.01	—	74.4	74.4	< 0.005	< 0.005	—	74.7
Dust From Material Movement	—	—	—	—	—	0.02	0.02	—	< 0.005	< 0.005	—	—	—	—	—	—	—
Onsite truck	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	—	0.00	0.00	0.00	0.00	0.00	0.00
Annual	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Off-Road Equipment	0.01	0.05	0.05	< 0.005	< 0.005	—	< 0.005	< 0.005	—	< 0.005	—	12.3	12.3	< 0.005	< 0.005	—	12.4
Dust From Material Movement	—	—	—	—	—	< 0.005	< 0.005	—	< 0.005	< 0.005	—	—	—	—	—	—	—
Onsite truck	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	—	0.00	0.00	0.00	0.00	0.00	0.00
Offsite	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Daily, Summer (Max)	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Worker	0.03	0.02	0.35	0.00	0.00	0.06	0.06	0.00	0.01	0.01	—	71.2	71.2	< 0.005	< 0.005	0.27	72.2
Vendor	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	—	0.00	0.00	0.00	0.00	0.00	0.00
Hauling	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	—	0.00	0.00	0.00	0.00	0.00	0.00
Daily, Winter (Max)	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Average Daily	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—

Worker	< 0.005	< 0.005	0.01	0.00	0.00	< 0.005	< 0.005	0.00	< 0.005	< 0.005	—	1.86	1.86	< 0.005	< 0.005	< 0.005	1.88
Vendor	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	—	0.00	0.00	0.00	0.00	0.00	0.00
Hauling	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	—	0.00	0.00	0.00	0.00	0.00	0.00
Annual	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Worker	< 0.005	< 0.005	< 0.005	0.00	0.00	< 0.005	< 0.005	0.00	< 0.005	< 0.005	—	0.31	0.31	< 0.005	< 0.005	< 0.005	0.31
Vendor	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	—	0.00	0.00	0.00	0.00	0.00	0.00
Hauling	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	—	0.00	0.00	0.00	0.00	0.00	0.00

3.3. Grading (2025) - Unmitigated

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

Location	ROG	NOx	CO	SO2	PM10E	PM10D	PM10T	PM2.5E	PM2.5D	PM2.5T	BCO2	NBCO2	CO2T	CH4	N2O	R	CO2e
Onsite	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Daily, Summer (Max)	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Off-Road Equipment	1.51	14.1	14.5	0.02	0.64	—	0.64	0.59	—	0.59	—	2,455	2,455	0.10	0.02	—	2,463
Dust From Material Movement	—	—	—	—	—	2.77	2.77	—	1.34	1.34	—	—	—	—	—	—	—
Onsite truck	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	—	0.00	0.00	0.00	0.00	0.00	0.00
Daily, Winter (Max)	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Average Daily	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Off-Road Equipment	0.09	0.81	0.83	< 0.005	0.04	—	0.04	0.03	—	0.03	—	141	141	0.01	< 0.005	—	142

Dust From Material Movement	—	—	—	—	—	0.16	0.16	—	0.08	0.08	—	—	—	—	—	—	—
Onsite truck	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	—	0.00	0.00	0.00	0.00	0.00	0.00
Annual	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Off-Road Equipment	0.02	0.15	0.15	< 0.005	0.01	—	0.01	0.01	—	0.01	—	23.4	23.4	< 0.005	< 0.005	—	23.5
Dust From Material Movement	—	—	—	—	—	0.03	0.03	—	0.01	0.01	—	—	—	—	—	—	—
Onsite truck	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	—	0.00	0.00	0.00	0.00	0.00	0.00
Offsite	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Daily, Summer (Max)	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Worker	0.04	0.03	0.46	0.00	0.00	0.08	0.08	0.00	0.02	0.02	—	94.9	94.9	< 0.005	< 0.005	0.36	96.3
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
Hauling	0.06	3.56	1.33	0.02	0.05	0.70	0.75	0.05	0.19	0.24	—	2,710	2,710	0.15	0.43	5.90	2,847
Daily, Winter (Max)	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Average Daily	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Worker	< 0.005	< 0.005	0.02	0.00	0.00	< 0.005	< 0.005	0.00	< 0.005	< 0.005	—	5.20	5.20	< 0.005	< 0.005	0.01	5.28
Vendor	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	—	0.00	0.00	0.00	0.00	0.00	0.00
Hauling	< 0.005	0.21	0.08	< 0.005	< 0.005	0.04	0.04	< 0.005	0.01	0.01	—	156	156	0.01	0.02	0.15	164
Annual	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Worker	< 0.005	< 0.005	< 0.005	0.00	0.00	< 0.005	< 0.005	0.00	< 0.005	< 0.005	—	0.86	0.86	< 0.005	< 0.005	< 0.005	0.87
Vendor	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	—	0.00	0.00	0.00	0.00	0.00	0.00

Hauling	< 0.005	0.04	0.01	< 0.005	< 0.005	0.01	0.01	< 0.005	< 0.005	< 0.005	—	25.8	25.8	< 0.005	< 0.005	0.02	27.1

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	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	1.24	10.6	11.9	0.02	0.40	—	0.40	0.37	—	0.37	—	2,201	2,201	0.09	0.02	—	2,209
Onsite truck	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	—	0.00	0.00	0.00	0.00	0.00	0.00
Daily, Winter (Max)	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Off-Road Equipment	1.24	10.6	11.9	0.02	0.40	—	0.40	0.37	—	0.37	—	2,201	2,201	0.09	0.02	—	2,209
Onsite truck	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	—	0.00	0.00	0.00	0.00	0.00	0.00
Average Daily	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Off-Road Equipment	0.41	3.51	3.92	0.01	0.13	—	0.13	0.12	—	0.12	—	728	728	0.03	0.01	—	731
Onsite truck	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	—	0.00	0.00	0.00	0.00	0.00	0.00
Annual	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Off-Road Equipment	0.07	0.64	0.72	< 0.005	0.02	—	0.02	0.02	—	0.02	—	121	121	< 0.005	< 0.005	—	121
Onsite truck	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	—	0.00	0.00	0.00	0.00	0.00	0.00
Offsite	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—

Daily, Summer (Max)	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Worker	0.15	0.12	1.77	0.00	0.00	0.32	0.32	0.00	0.08	0.08	—	362	362	0.02	0.01	1.36	368
Vendor	0.01	0.19	0.09	< 0.005	< 0.005	0.04	0.04	< 0.005	0.01	0.01	—	142	142	0.01	0.02	0.37	148
Hauling	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	—	0.00	0.00	0.00	0.00	0.00	0.00
Daily, Winter (Max)	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Worker	0.15	0.13	1.55	0.00	0.00	0.32	0.32	0.00	0.08	0.08	—	342	342	0.02	0.01	0.04	346
Vendor	0.01	0.20	0.09	< 0.005	< 0.005	0.04	0.04	< 0.005	0.01	0.01	—	142	142	0.01	0.02	0.01	148
Hauling	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	—	0.00	0.00	0.00	0.00	0.00	0.00
Average Daily	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Worker	0.05	0.04	0.52	0.00	0.00	0.11	0.11	0.00	0.02	0.02	—	114	114	0.01	< 0.005	0.19	116
Vendor	< 0.005	0.06	0.03	< 0.005	< 0.005	0.01	0.01	< 0.005	< 0.005	< 0.005	—	46.9	46.9	< 0.005	0.01	0.05	49.0
Hauling	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	—	0.00	0.00	0.00	0.00	0.00	0.00
Annual	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Worker	0.01	0.01	0.09	0.00	0.00	0.02	0.02	0.00	< 0.005	< 0.005	—	18.9	18.9	< 0.005	< 0.005	0.03	19.2
Vendor	< 0.005	0.01	0.01	< 0.005	< 0.005	< 0.005	< 0.005	< 0.005	< 0.005	< 0.005	—	7.77	7.77	< 0.005	< 0.005	0.01	8.11
Hauling	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	—	0.00	0.00	0.00	0.00	0.00	0.00

3.7. Building Construction (2026) - Unmitigated

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

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

Off-Road Equipment	1.18	10.1	11.8	0.02	0.36	—	0.36	0.33	—	0.33	—	2,201	2,201	0.09	0.02	—	2,208
Onsite truck	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	—	0.00	0.00	0.00	0.00	0.00	0.00
Daily, Winter (Max)	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Off-Road Equipment	1.18	10.1	11.8	0.02	0.36	—	0.36	0.33	—	0.33	—	2,201	2,201	0.09	0.02	—	2,208
Onsite truck	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	—	0.00	0.00	0.00	0.00	0.00	0.00
Average Daily	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Off-Road Equipment	0.63	5.40	6.28	0.01	0.19	—	0.19	0.18	—	0.18	—	1,176	1,176	0.05	0.01	—	1,180
Onsite truck	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	—	0.00	0.00	0.00	0.00	0.00	0.00
Annual	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Off-Road Equipment	0.11	0.99	1.15	< 0.005	0.04	—	0.04	0.03	—	0.03	—	195	195	0.01	< 0.005	—	195
Onsite truck	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	—	0.00	0.00	0.00	0.00	0.00	0.00
Offsite	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Daily, Summer (Max)	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Worker	0.14	0.11	1.65	0.00	0.00	0.32	0.32	0.00	0.08	0.08	—	355	355	0.02	0.01	1.24	360
Vendor	< 0.005	0.18	0.08	< 0.005	< 0.005	0.04	0.04	< 0.005	0.01	0.01	—	139	139	0.01	0.02	0.34	146
Hauling	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	—	0.00	0.00	0.00	0.00	0.00	0.00
Daily, Winter (Max)	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Worker	0.14	0.12	1.46	0.00	0.00	0.32	0.32	0.00	0.08	0.08	—	335	335	0.02	0.01	0.03	339

Vendor	< 0.005	0.19	0.09	< 0.005	< 0.005	0.04	0.04	< 0.005	0.01	0.01	—	139	139	0.01	0.02	0.01	145
Hauling	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	—	0.00	0.00	0.00	0.00	0.00	0.00
Average Daily	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Worker	0.07	0.06	0.79	0.00	0.00	0.17	0.17	0.00	0.04	0.04	—	181	181	0.01	0.01	0.29	183
Vendor	< 0.005	0.10	0.05	< 0.005	< 0.005	0.02	0.02	< 0.005	0.01	0.01	—	74.4	74.4	< 0.005	0.01	0.08	77.7
Hauling	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	—	0.00	0.00	0.00	0.00	0.00	0.00
Annual	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Worker	0.01	0.01	0.14	0.00	0.00	0.03	0.03	0.00	0.01	0.01	—	29.9	29.9	< 0.005	< 0.005	0.05	30.3
Vendor	< 0.005	0.02	0.01	< 0.005	< 0.005	< 0.005	< 0.005	< 0.005	< 0.005	< 0.005	—	12.3	12.3	< 0.005	< 0.005	0.01	12.9
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

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	ROG	NOx	CO	SO2	PM10E	PM10D	PM10T	PM2.5E	PM2.5D	PM2.5T	BCO2	NBCO2	CO2T	CH4	N2O	R	CO2e
Onsite	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Daily, Summer (Max)	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Daily, Winter (Max)	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Off-Road Equipment	0.67	5.88	8.19	0.01	0.25	—	0.25	0.23	—	0.23	—	1,244	1,244	0.05	0.01	—	1,248
Paving	0.10	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Onsite truck	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	—	0.00	0.00	0.00	0.00	0.00	0.00
Average Daily	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—

Off-Road Equipment	0.04	0.39	0.54	< 0.005	0.02	—	0.02	0.02	—	0.02	—	81.8	81.8	< 0.005	< 0.005	—	82.1
Paving	0.01	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Onsite truck	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	—	0.00	0.00	0.00	0.00	0.00	0.00
Annual	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Off-Road Equipment	0.01	0.07	0.10	< 0.005	< 0.005	—	< 0.005	< 0.005	—	< 0.005	—	13.5	13.5	< 0.005	< 0.005	—	13.6
Paving	< 0.005	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Onsite truck	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	—	0.00	0.00	0.00	0.00	0.00	0.00
Offsite	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Daily, Summer (Max)	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Daily, Winter (Max)	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Worker	0.05	0.05	0.57	0.00	0.00	0.13	0.13	0.00	0.03	0.03	—	132	132	0.01	0.01	0.01	133
Vendor	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	—	0.00	0.00	0.00	0.00	0.00	0.00
Hauling	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	—	0.00	0.00	0.00	0.00	0.00	0.00
Average Daily	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Worker	< 0.005	< 0.005	0.04	0.00	0.00	0.01	0.01	0.00	< 0.005	< 0.005	—	8.74	8.74	< 0.005	< 0.005	0.01	8.86
Vendor	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	—	0.00	0.00	0.00	0.00	0.00	0.00
Hauling	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	—	0.00	0.00	0.00	0.00	0.00	0.00
Annual	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Worker	< 0.005	< 0.005	0.01	0.00	0.00	< 0.005	< 0.005	0.00	< 0.005	< 0.005	—	1.45	1.45	< 0.005	< 0.005	< 0.005	1.47
Vendor	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	—	0.00	0.00	0.00	0.00	0.00	0.00
Hauling	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	—	0.00	0.00	0.00	0.00	0.00	0.00

3.11. 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	ROG	NOx	CO	SO2	PM10E	PM10D	PM10T	PM2.5E	PM2.5D	PM2.5T	BCO2	NBCO2	CO2T	CH4	N2O	R	CO2e
Onsite	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Daily, Summer (Max)	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Daily, Winter (Max)	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Off-Road Equipment	0.12	0.86	1.13	< 0.005	0.02	—	0.02	0.02	—	0.02	—	134	134	0.01	< 0.005	—	134
Architectural Coatings	12.8	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
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
Average Daily	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Off-Road Equipment	0.01	0.10	0.13	< 0.005	< 0.005	—	< 0.005	< 0.005	—	< 0.005	—	15.4	15.4	< 0.005	< 0.005	—	15.4
Architectural Coatings	1.47	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Onsite truck	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	—	0.00	0.00	0.00	0.00	0.00	0.00
Annual	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Off-Road Equipment	< 0.005	0.02	0.02	< 0.005	< 0.005	—	< 0.005	< 0.005	—	< 0.005	—	2.54	2.54	< 0.005	< 0.005	—	2.55
Architectural Coatings	0.27	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—

Onsite truck	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	—	0.00	0.00	0.00	0.00	0.00	0.00
Offsite	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Daily, Summer (Max)	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Daily, Winter (Max)	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Worker	0.03	0.02	0.29	0.00	0.00	0.06	0.06	0.00	0.02	0.02	—	67.0	67.0	< 0.005	< 0.005	0.01	67.9
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
Hauling	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	—	0.00	0.00	0.00	0.00	0.00	0.00
Average Daily	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Worker	< 0.005	< 0.005	0.03	0.00	0.00	0.01	0.01	0.00	< 0.005	< 0.005	—	7.78	7.78	< 0.005	< 0.005	0.01	7.89
Vendor	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	—	0.00	0.00	0.00	0.00	0.00	0.00
Hauling	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	—	0.00	0.00	0.00	0.00	0.00	0.00
Annual	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Worker	< 0.005	< 0.005	0.01	0.00	0.00	< 0.005	< 0.005	0.00	< 0.005	< 0.005	—	1.29	1.29	< 0.005	< 0.005	< 0.005	1.31
Vendor	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	—	0.00	0.00	0.00	0.00	0.00	0.00
Hauling	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	—	0.00	0.00	0.00	0.00	0.00	0.00

4. Operations Emissions Details

4.1. Mobile Emissions by Land Use

4.1.1. Unmitigated

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

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

Daily, Summer (Max)	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Apartments Mid Rise	1.61	1.01	10.7	0.03	0.02	2.26	2.28	0.02	0.57	0.59	—	2,602	2,602	0.13	0.10	7.87	2,643
Total	1.61	1.01	10.7	0.03	0.02	2.26	2.28	0.02	0.57	0.59	—	2,602	2,602	0.13	0.10	7.87	2,643
Daily, Winter (Max)	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Apartments Mid Rise	1.58	1.11	10.2	0.02	0.02	2.26	2.28	0.02	0.57	0.59	—	2,487	2,487	0.14	0.11	0.20	2,523
Total	1.58	1.11	10.2	0.02	0.02	2.26	2.28	0.02	0.57	0.59	—	2,487	2,487	0.14	0.11	0.20	2,523
Annual	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Apartments Mid Rise	0.28	0.20	1.85	< 0.005	< 0.005	0.41	0.41	< 0.005	0.10	0.11	—	415	415	0.02	0.02	0.56	421
Total	0.28	0.20	1.85	< 0.005	< 0.005	0.41	0.41	< 0.005	0.10	0.11	—	415	415	0.02	0.02	0.56	421

4.2. Energy

4.2.1. Electricity Emissions By Land Use - Unmitigated

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

Land Use	ROG	NOx	CO	SO2	PM10E	PM10D	PM10T	PM2.5E	PM2.5D	PM2.5T	BCO2	NBCO2	CO2T	CH4	N2O	R	CO2e
Daily, Summer (Max)	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Apartments Mid Rise	—	—	—	—	—	—	—	—	—	—	—	290	290	0.02	< 0.005	—	291
Total	—	—	—	—	—	—	—	—	—	—	—	290	290	0.02	< 0.005	—	291

Daily, Winter (Max)	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Apartments Mid Rise	—	—	—	—	—	—	—	—	—	—	—	290	290	0.02	< 0.005	—	291
Total	—	—	—	—	—	—	—	—	—	—	—	290	290	0.02	< 0.005	—	291
Annual	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Apartments Mid Rise	—	—	—	—	—	—	—	—	—	—	—	48.0	48.0	< 0.005	< 0.005	—	48.2
Total	—	—	—	—	—	—	—	—	—	—	—	48.0	48.0	< 0.005	< 0.005	—	48.2

4.2.3. Natural Gas Emissions By Land Use - Unmitigated

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

Land Use	ROG	NOx	CO	SO2	PM10E	PM10D	PM10T	PM2.5E	PM2.5D	PM2.5T	BCO2	NBCO2	CO2T	CH4	N2O	R	CO2e
Daily, Summer (Max)	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Apartments Mid Rise	0.01	0.09	0.04	< 0.005	0.01	—	0.01	0.01	—	0.01	—	120	120	0.01	< 0.005	—	121
Total	0.01	0.09	0.04	< 0.005	0.01	—	0.01	0.01	—	0.01	—	120	120	0.01	< 0.005	—	121
Daily, Winter (Max)	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Apartments Mid Rise	0.01	0.09	0.04	< 0.005	0.01	—	0.01	0.01	—	0.01	—	120	120	0.01	< 0.005	—	121
Total	0.01	0.09	0.04	< 0.005	0.01	—	0.01	0.01	—	0.01	—	120	120	0.01	< 0.005	—	121
Annual	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—

Apartments Mid Rise	< 0.005	0.02	0.01	< 0.005	< 0.005	—	< 0.005	< 0.005	—	< 0.005	—	19.9	19.9	< 0.005	< 0.005	—	20.0
Total	< 0.005	0.02	0.01	< 0.005	< 0.005	—	< 0.005	< 0.005	—	< 0.005	—	19.9	19.9	< 0.005	< 0.005	—	20.0

4.3. Area Emissions by Source

4.3.1. Unmitigated

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

Source	ROG	NOx	CO	SO2	PM10E	PM10D	PM10T	PM2.5E	PM2.5D	PM2.5T	BCO2	NBCO2	CO2T	CH4	N2O	R	CO2e
Daily, Summer (Max)	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Hearths	0.05	0.88	0.37	0.01	0.07	—	0.07	0.07	—	0.07	0.00	1,116	1,116	0.02	< 0.005	—	1,117
Consumer Products	1.83	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Architectural Coatings	0.15	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Landscape Equipment	0.26	0.03	3.01	< 0.005	< 0.005	—	< 0.005	< 0.005	—	< 0.005	—	8.04	8.04	< 0.005	< 0.005	—	8.07
Total	2.30	0.91	3.38	0.01	0.07	—	0.07	0.07	—	0.07	0.00	1,124	1,124	0.02	< 0.005	—	1,125
Daily, Winter (Max)	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Hearths	0.05	0.88	0.37	0.01	0.07	—	0.07	0.07	—	0.07	0.00	1,116	1,116	0.02	< 0.005	—	1,117
Consumer Products	1.83	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—

Architectural	0.15	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Total	2.03	0.88	0.37	0.01	0.07	—	0.07	0.07	—	0.07	0.00	1,116	1,116	0.02	< 0.005	—	1,117
Annual	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Hearths	< 0.005	0.04	0.02	< 0.005	< 0.005	—	< 0.005	< 0.005	—	< 0.005	0.00	41.5	41.5	< 0.005	< 0.005	—	41.6
Consumer Products	0.33	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Architectural Coatings	0.03	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Landscape Equipment	0.02	< 0.005	0.27	< 0.005	< 0.005	—	< 0.005	< 0.005	—	< 0.005	—	0.66	0.66	< 0.005	< 0.005	—	0.66
Total	0.39	0.04	0.29	< 0.005	< 0.005	—	< 0.005	< 0.005	—	< 0.005	0.00	42.2	42.2	< 0.005	< 0.005	—	42.2

4.4. Water Emissions by Land Use

4.4.1. Unmitigated

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

Land Use	ROG	NOx	CO	SO2	PM10E	PM10D	PM10T	PM2.5E	PM2.5D	PM2.5T	BCO2	NBCO2	CO2T	CH4	N2O	R	CO2e
Daily, Summer (Max)	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Apartments Mid Rise	—	—	—	—	—	—	—	—	—	—	3.57	22.9	26.4	0.37	0.01	—	38.2
Total	—	—	—	—	—	—	—	—	—	—	3.57	22.9	26.4	0.37	0.01	—	38.2
Daily, Winter (Max)	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—

Apartments	—	—	—	—	—	—	—	—	—	—	3.57	22.9	26.4	0.37	0.01	—	38.2
Total	—	—	—	—	—	—	—	—	—	—	3.57	22.9	26.4	0.37	0.01	—	38.2
Annual	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Apartments Mid Rise	—	—	—	—	—	—	—	—	—	—	0.59	3.79	4.38	0.06	< 0.005	—	6.33
Total	—	—	—	—	—	—	—	—	—	—	0.59	3.79	4.38	0.06	< 0.005	—	6.33

4.5. Waste Emissions by Land Use

4.5.1. Unmitigated

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

Land Use	ROG	NOx	CO	SO2	PM10E	PM10D	PM10T	PM2.5E	PM2.5D	PM2.5T	BCO2	NBCO2	CO2T	CH4	N2O	R	CO2e
Daily, Summer (Max)	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Apartments Mid Rise	—	—	—	—	—	—	—	—	—	—	21.1	0.00	21.1	2.11	0.00	—	74.0
Total	—	—	—	—	—	—	—	—	—	—	21.1	0.00	21.1	2.11	0.00	—	74.0
Daily, Winter (Max)	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Apartments Mid Rise	—	—	—	—	—	—	—	—	—	—	21.1	0.00	21.1	2.11	0.00	—	74.0
Total	—	—	—	—	—	—	—	—	—	—	21.1	0.00	21.1	2.11	0.00	—	74.0
Annual	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Apartments Mid Rise	—	—	—	—	—	—	—	—	—	—	3.50	0.00	3.50	0.35	0.00	—	12.2

Total	—	—	—	—	—	—	—	—	—	—	3.50	0.00	3.50	0.35	0.00	—	12.2

4.6. Refrigerant Emissions by Land Use

4.6.1. Unmitigated

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

Land Use	ROG	NOx	CO	SO2	PM10E	PM10D	PM10T	PM2.5E	PM2.5D	PM2.5T	BCO2	NBCO2	CO2T	CH4	N2O	R	CO2e
Daily, Summer (Max)	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Apartments Mid Rise	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	0.61	0.61
Total	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	0.61	0.61
Daily, Winter (Max)	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Apartments Mid Rise	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	0.61	0.61
Total	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	0.61	0.61
Annual	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Apartments Mid Rise	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	0.10	0.10
Total	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	0.10	0.10

4.7. Offroad Emissions By Equipment Type

4.7.1. Unmitigated

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

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

4.8. Stationary Emissions By Equipment Type

4.8.1. Unmitigated

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

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

4.9. User Defined Emissions By Equipment Type

4.9.1. Unmitigated

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

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

4.10. Soil Carbon Accumulation By Vegetation Type

4.10.1. Soil Carbon Accumulation By Vegetation Type - Unmitigated

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

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

Total	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Annual	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Total	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—

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

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

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

4.10.3. Avoided and Sequestered Emissions by Species - Unmitigated

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

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

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

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	6/3/2025	6/16/2025	5.00	10.0	—

Grading	Grading	6/17/2025	7/15/2025	5.00	21.0	—
Building Construction	Building Construction	7/16/2025	9/30/2026	5.00	316	—
Paving	Paving	10/1/2026	11/3/2026	5.00	24.0	—
Architectural Coating	Architectural Coating	11/4/2026	12/31/2026	5.00	42.0	—

5.2. Off-Road Equipment

5.2.1. Unmitigated

Phase Name	Equipment Type	Fuel Type	Engine Tier	Number per Day	Hours Per Day	Horsepower	Load Factor
Site Preparation	Graders	Diesel	Average	1.00	8.00	148	0.41
Site Preparation	Scrapers	Diesel	Average	1.00	8.00	423	0.48
Site Preparation	Tractors/Loaders/Backhoes	Diesel	Average	1.00	7.00	84.0	0.37
Grading	Graders	Diesel	Average	1.00	8.00	148	0.41
Grading	Rubber Tired Dozers	Diesel	Average	1.00	8.00	367	0.40
Grading	Tractors/Loaders/Backhoes	Diesel	Average	2.00	7.00	84.0	0.37
Building Construction	Cranes	Diesel	Average	1.00	8.00	367	0.29
Building Construction	Forklifts	Diesel	Average	2.00	7.00	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	1.00	6.00	84.0	0.37
Building Construction	Welders	Diesel	Average	3.00	8.00	46.0	0.45
Paving	Cement and Mortar Mixers	Diesel	Average	1.00	8.00	10.0	0.56
Paving	Pavers	Diesel	Average	1.00	8.00	81.0	0.42
Paving	Paving Equipment	Diesel	Average	1.00	8.00	89.0	0.36
Paving	Rollers	Diesel	Average	2.00	8.00	36.0	0.38

Paving	Tractors/Loaders/Backhoes	Diesel	Average	1.00	8.00	84.0	0.37
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	7.50	12.0	LDA,LDT1,LDT2
Site Preparation	Vendor	—	7.63	HHDT,MHDT
Site Preparation	Hauling	0.00	20.0	HHDT
Site Preparation	Onsite truck	—	—	HHDT
Grading	—	—	—	—
Grading	Worker	10.0	12.0	LDA,LDT1,LDT2
Grading	Vendor	—	7.63	HHDT,MHDT
Grading	Hauling	37.7	20.0	HHDT
Grading	Onsite truck	—	—	HHDT
Building Construction	—	—	—	—
Building Construction	Worker	38.2	12.0	LDA,LDT1,LDT2
Building Construction	Vendor	5.67	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	—	7.63	HHDT,MHDT
Paving	Hauling	0.00	20.0	HHDT
Paving	Onsite truck	—	—	HHDT

Architectural Coating	—	—	—	—
Architectural Coating	Worker	7.63	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

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

5.5. Architectural Coatings

Phase Name	Residential Interior Area Coated (sq ft)	Residential Exterior Area Coated (sq ft)	Non-Residential Interior Area Coated (sq ft)	Non-Residential Exterior Area Coated (sq ft)	Parking Area Coated (sq ft)
Architectural Coating	173,437	57,812	0.00	0.00	—

5.6. Dust Mitigation

5.6.1. Construction Earthmoving Activities

Phase Name	Material Imported (Cubic Yards)	Material Exported (Cubic Yards)	Acres Graded (acres)	Material Demolished (sq. ft.)	Acres Paved (acres)
Site Preparation	0.00	0.00	15.0	0.00	—
Grading	6,329	0.00	21.0	0.00	—
Paving	0.00	0.00	0.00	0.00	1.27

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	1.27	75%

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	589	0.03	< 0.005
2026	0.00	589	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	432	432	432	157,662	3,194	3,194	3,194	1,165,932

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	53
Propane Fireplaces	0
Electric Fireplaces	0
No Fireplaces	0
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)
173437.19999999998	57,812	0.00	0.00	—

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	179,716	589	0.0330	0.0040	375,157

5.12. Operational Water and Wastewater Consumption

5.12.1. Unmitigated

Land Use	Indoor Water (gal/year)	Outdoor Water (gal/year)
Apartments Mid Rise	1,862,053	281,648

5.13. Operational Waste Generation

5.13.1. Unmitigated

Land Use	Waste (ton/year)	Cogeneration (kWh/year)
Apartments Mid Rise	39.2	—

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

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)

8. User Changes to Default Data

Screen	Justification
Land Use	Plans - 53 units on 2.45 acres, 85,648sf total, 8,000sf common open space + 140sf per unit (=15,420sf landscaped)
Construction: Construction Phases	Site does not require any demolition. Construction planned to start in June 2025 and complete in December 2026.
Construction: Paving	Assume 75% of pavement will be asphalt.
Operations: Vehicle Data	Traffic study determined total ADT = 432, for 53 units = 8.15 trip rate
Operations: Hearths	Assume no wood burning, assume all units have a gas fireplace.

APPENDIX B

SUSTAINABLE SANTEE PLAN PROJECT CONSISTENCY CHECKLIST

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Sustainable Santee Action Plan Consistency and Implementation Tracking Checklist

The Sustainable Santee Action Plan Project Consistency Checklist (Checklist) is intended to be a tool for development projects to demonstrate consistency with Santee's (City's) Sustainable Santee Action Plan, which is a qualified greenhouse gas (GHG) emissions reduction plan in accordance with California Environmental Quality Act (CEQA) Guidelines Section 15183.5. This Checklist has been developed as part of the Sustainable Santee Action Plan implementation and monitoring process and will support the achievement of individual GHG reduction measures as well as the City's overall GHG reduction goals. In addition, this Checklist will further the City's sustainability goals and policies that encourage sustainable development and aim to conserve and reduce the consumption of resources, such as energy and water, among others.

CEQA Guidelines Section 15183.5 allows lead agencies to analyze the impacts associated with GHG emissions at a programmatic level in plan-level documents such as Climate Action Plans or sustainability plans, so that project-level environmental documents may tier from the programmatic review. Projects that meet the requirements of this Checklist will be deemed to be consistent with the Sustainable Santee Action Plan and will be found to have a less than significant contribution to cumulative GHG (i.e., the project's incremental contribution to cumulative GHG effects is not cumulatively considerable), pursuant to CEQA Guidelines Sections 15064(h)(3), 15130(d), and 15183(b). Projects that do not meet the requirements in this Checklist will be deemed to be inconsistent with the Sustainable Santee Action Plan and must prepare a project-specific analysis of GHG emissions, including quantification of existing and projected GHG emissions and incorporation of the measures in this Checklist to the extent feasible. This GHG Checklist can be updated to reflect adoption of new GHG reduction strategies or to comply with any changes and updates in the Plan or local, State or federal regulations.

1. Project Information	
Contact Information	
Project No./Name:	Park Center Apartments
Address:	APNs: 381-032-07-00 and 381-032-07-00
Applicant Name:	
Contact Information:	
Project Description Characteristics	
1. What is the size of the Project (acres)?	Approx. 2.45 acres
2. Identify all Applicable Proposed Land uses:	
a. Residential-Single Family (Indicate number of single-family units)	
b. Residential-Multifamily (Indicate number of multifamily units)	53 apartments
c. Commercial (total square footage)	
d. Industrial (total square footage)	
e. Other (describe)	8,000 square feet of open common space
3. Provide a brief description of the project proposed:	The proposed project would construct a total of 53 three-story multifamily residential units within 10 buildings, including 106 enclosed garage spaces and 13 guest parking spaces, and 8,000 square feet of open common space centrally located at grade level on a 2.45 acre site

2. Determining Land Use Consistency		
Checklist Item		
As the first step in determining the consistency with the Sustainable Santee Action Plan for the discretionary development projects, this section allows the City to determine the project's consistency with the land use assumptions used in the Plan.		
	Yes	**No**
1. Is the proposed project consistent with the existing General Plan and land use zoning designations? OR	✔	
2. If the proposed project is not consistent with the existing land use plan and zoning designations, does the project include a land use plan and/or zoning designation amendment that is identified in the Sustainable Santee Action Plan Land Use Buffer (see Appendix A, Table 11)?		
3. If the proposed project is not consistent with the existing land use plan, zoning designations, or Land Use Buffer, does the project include a land use plan and/or zoning designation ammendment that will result in an equivalent or less GHG-intensive project when compared to the existing designations?		

Notes:

For questions 1, if the answer is **Yes**, proceed to the Sustainable Santee Action Plan Consistency Checklist. If the answer is **No**, procced to question 2.

For question 2, if the answer is **Yes**, proceed to the Sustainable Santee Action Plan Consistency Checklist. If the answer is **No**, proceed to question 3.

For question 3, if the answer is **Yes** provide estimated project emissions under both existing and proposed designation (s) for comparison. Compare the maximum buildout of the existing designation and the maximum buildout of the proposed designation. If the answer of question 3 is **No** then, in accordance with the City's Significance Determination Thresholds, the project's GHG impact may be significant. The project must nonetheless incorporate each of the applicable measures identified in the Checklist to mitigate cumulative GHG emissions impacts unless the decision maker finds that a measure is infeasible in accordance with CEQA Guidelines Section 15091.

Sustainable Santee Action Plan CEQA Project Consistency Checklist					Notes
Greenhouse Gas Reduction Measure	**Measure Applicability**				This checklist is to be filled out by the applicant
	Yes	**No**	**N/A**	**Description**	
Emissions Measures Category: Energy Efficiency					
Land Use Sector-Residential					
Goal 1. Increase Energy Efficiency in Existing Residential Units					Measure 1.1 is not on checklist because it focuses on minor residental alterations not subject to CEQA
Measure 1.2. For existing Residential Unit Permit for Major Modifications (more than 30% of dwelling unit size, including bathroom and kitchen) that is considered a Project under CEQA must implement energy efficiency retrofits recommended from City Energy Audit and explain the energy efficiency retrofits implemented.			✔	The project is proposing new development and does not include modifications to an existing residential building	Measure 1.2 only applies if alteration is subject to CEQA
Goal 2. Increase Energy Efficiency in the New Residential Units					
Measure 2.1. New residential construction meet or exceed California Green Building Standards Tier 2 Voluntary Measures, such as obtaining green building ratings including LEED, Build it Green, or Energy Star Certified building certifications in scoring development and explain the measures implemented.	✔			The proposed project would include “green” building elements constructed in accordance with California’s Title 24 Building Energy Efficiency Standards.	
Land Use Sector-Commercial					Measure 3.1 is not on checklist because it focuses on minor alterations which are not subject to CEQA
Goal 3. Increase Energy Efficiency in Existing Commercial Units					
Measure 3.2. For existing commercial units of 10,000 sq. ft. or more seeking building permits for modifications representing 30% or more sq. ft, and considered a Project under CEQA must implement energy efficiency retrofits recommended by the City to meet California Green Building Standards Tier 1 Voluntary Measures and explain the retrofits implemented.			✔	The project is proposing new development and does not include modifications to an existing commercial building.	Measure 3.2 only applies if alteration is subject to CEQA
Goal 4. Increase Energy Efficiency in New Commercial Units					
Measure 4.1. New commercial units meet or exceed California Green Building Standards Tier 2 Voluntary Measures such as obtain green building ratings including: LEED, Build it Green, or Energy Star Certified buildings certifications in scoring development and explain the measures implemented.			✔	The project does not include any commercial aspect, it is purely residential.	
Emissions Measures Category: Advanced Goals Measures					
Land Use Sector-Commercial					
Goal 5. Decrease Energy Demand through Reducing Urban Heat Island Effect					
Measure 5.1. Project utilizes tree planting for shade and energy efficiency such as tree planting in parking lots and streetscapes.	✔			Project landscaping would consist of a mix of trees, shrubs, and ground cover.	
Measure 5.2. Project uses light-reflecting surfaces such as enhanced cool roofs on commercial buildings.	✔			The project would incorporate design measures to utilize light-reflecting surfaces to reduce urban heat island effect.	
Emissions Measures Category: Transportation					
Land Use Sector-Residential and Commercial					
Goal 6. Decrease GHG Emissions through a Reduction in VMT					
Measure 6.1. Proposed project streets include sidewalks, crosswalks, and other infrastructure that promotes non-motorized transportation options.	✔			The proposed project would include paved areas for internal streets and sidewalks (See Figure 2 – Site Plan)	
Measure 6.2. Proposed project installs bike paths to improve bike transit.			✔	The project site isn’t large enough for bike paths.	

Land Use Sector-Residential and Commercial **Goal 7: Increase Use of Electric Vehicles**					
Measure 7.1. Install electric vehicle chargers in all new residential and commercial developments.					
a. For new Single-Family Residential, install complete 40 Amp electrical service and one e-charger.			✔	The project is a multi-family residential project.	
b. For new Multifamily Residential, install e-chargers for 13 percent of total parking.	✔			The project would include the required EV parking spaces per code (16 spaces).	
c. For new Office Space, Regional Shopping Centers, and Movie Theaters, install e-chargers for 5 percent of total parking spaces.			✔	The project is not an office or retail project.	
d. For new Industrial and other Land Uses employing 200 or more employees, install e-charges for 5 percent of total parking spaces.			✔	The project is not an industrial project.	
Land Use Sector-Residential and Commercial **Goal 8. Improve Traffic Flow**					
Measure 8.1. Implement traffic flow improvement program.					Projects that include traffic controls need to show consistency with one of these
a. Install smart traffic signals at intersections warranting a traffic signal, OR			✔	No new traffic signals would be required.	
b. Install roundabout.			✔	No new roundabouts would be required.	
Emissions Measures Category: Solid Waste **Land Use Sector-Residential and Commercial** **Goal 9: Decrease GHG Emissions through Reducing Solid Waste Generation**					
Measure 9.1. Reduce waste at landfills.	✔			The project would comply with the City's construction and demolition recycling ordinance (Santee Municipal Code Section 13.38.060) and Solid Waste Ordinance #3239-A. The project would provide on-site recycling storage for collection.	
Emissions Measures Category: Clean Energy **Land Use Sector-Residential and Commercial** **Goal 10. Decrease GHG Emissions through Increased Clean Energy Use** Measure 10.1. Increase distributed energy generation within City of Santee by implementing the following applicable photovoltaic solar systems:					
a. Single-family residential to install at least 2kW per unit of PV solar systems, unless the installation is infeasible due to poor solar resources established in a solar feasibility study prepared by a qualified solar consultant submitted with an application			✔	The project is a multi-family residential project.	
b. Multifamily residential to install at least 1kW per unit of PV solar systems, unless the installation is infeasible due to poor solar resources established in a solar feasibility study prepared by a qualified solar consultant submitted with an applicant's formal project submittal to City.	✔			The project would include a photovoltaic solar system.	
c. On commercial buildings, install at least 2 kW per square foot of building area (e.g., 2,000 sq. ft. = 3 kW) unless the installation is infeasible due to poor solar resources.			✔	The project is a residential project.	