FINAL

Carson Lofts Apartment Project
Initial Study/Mitigated Negative Declaration

Prepared for:

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Acronyms and Abbreviations

Acronym/Abbreviation	Definition
AB	Assembly Bill
ADT	average daily traffic
AERMOD	U.S. Environmental Protection Agency Regulatory Model
AQMP	Air Quality Management Plan
BMP	best management practice
CAAQS	California Ambient Air Quality Standards
CAL FIRE	California Department of Forestry and Fire Services
CalEEMod	California Emissions Estimator Model
Caltrans	California Department of Transportation
CAP	Climate Action Plan
CARB	California Air Resources Board
CCR	California Code of Regulations
CEQA	California Environmental Quality Act
CH_4	methane
CHRIS	California Historical Resources Information System
City	City of Carson
CMP	Congestion Management Program
CNEL	Community Noise Equivalent Level
CO	carbon monoxide
CO_2	carbon dioxide
CO_2e	carbon dioxide equivalent
dB	decibel
dBA	A-weighted decibel
DPM	diesel particulate matter
EIR	Environmental Impact Report
EPA	U.S. Environmental Protection Agency
ESA	Environmental Site Assessment
FHSZ	Fire Hazard Severity Zone
GHG	greenhouse gas
GWP	global warming potential
HRA	health risk assessment
HVAC	heating, ventilation, and air conditioning
I	Interstate
IS	Initial Study
JWPCP	Joint Water Pollution Control Plant
LACoFD	Los Angeles County Fire Department
LACSD	Sanitation Districts of Los Angeles County
LAUSD	Los Angeles Unified School District
L_{dn}	day/night average sound level
L_{eq}	energy average level
LST	localized significance threshold
Metro	Los Angeles County Metropolitan Transportation Authority
MM	Mitigation Measure
MND	Mitigated Negative Declaration

Acronym/Abbreviation	Definition
MT	metric ton
N_2O	nitrous oxide
NAAQS	National Ambient Air Quality Standards
NAHC	Native American Heritage Commission
NO_2	nitrogen dioxide
NOx	oxides of nitrogen
O_3	ozone
OEHHA	Office of Environmental Health Hazard Assessment
OPR	Governor's Office of Planning and Research
PM_{10}	particulate matter with an aerodynamic diameter less than or equal to 10 microns
$PM_{2.5}$	particulate matter with an aerodynamic diameter less than or equal to 2.5 microns
PRC	California Public Resources Code
project	Carson Lofts Apartment Project
RCNM	Roadway Construction Noise Model
RTP	Regional Transportation Plan
SB	Senate Bill
SBCCG	South Bay Cities Council of Governments
SCAB	South Coast Air Basin
SCAG	Southern California Association of Governments
SCAQMD	South Coast Air Quality Management District
SCCIC	South Central Coastal Information Center
SCE	Southern California Edison
SCS	Sustainable Communities Strategy
SOx	sulfur oxides
TAC	toxic air contaminant
TCR	tribal cultural resource
UWMP	Urban Water Management Plan
VMT	vehicle miles traveled
VOC	volatile organic compound
WEAP	Worker Environmental Awareness Program
WRD	Water Replenishment District of Southern California

1 Introduction

1.1 Project Overview

The City of Carson (City) received a development application from Sagecrest Planning + Environmental requesting the approval of the following discretionary actions for the proposed Carson Lofts Apartment Project (project):

- General Plan Amendment No. 109-20
- Carson Lofts Specific Plan No. 23-~~20~~20
- Zone Change (ZCC) No. 184-~~20~~21
- Design Overlay Review No. ~~109~~1832-20

The approximately 0.52-acre project site is currently vacant, disturbed land. The project involves the construction of a 19-unit multifamily residential community with associated improvements.

The project is subject to analysis pursuant to the California Environmental Quality Act (CEQA). In accordance with CEQA Guidelines Section 15367, the City is the lead agency with principal responsibility for considering the project for approval (14 CCR 15000 et seq.).

1.2 California Environmental Quality Act Compliance

CEQA, a statewide environmental law contained in California Public Resources Code (PRC) Sections 21000–21177, applies to most public agency decisions to carry out, authorize, or approve actions that have the potential to adversely affect the environment (PRC Section 21000 et seq.). The overarching goal of CEQA is to protect the physical environment. To achieve that goal, CEQA requires that public agencies identify the environmental consequences of their discretionary actions and consider alternatives and mitigation measures that could avoid or reduce significant adverse impacts when avoidance or reduction is feasible. It also gives other public agencies and the public an opportunity to comment on the project. If significant adverse impacts cannot be avoided, reduced, or mitigated to below a level of significance, the public agency is required to prepare an Environmental Impact Report (EIR) and balance the project's environmental concerns with other goals and benefits in a statement of overriding considerations.

In accordance with the CEQA Guidelines, the City, as the lead agency, has prepared an Initial Study (IS) to evaluate potential environmental effects and to determine whether an EIR, a Negative Declaration, or a Mitigated Negative Declaration (MND) should be prepared for the project. Per Section 15070(b) of the CEQA Guidelines, an MND is prepared for a project when an IS has identified potentially significant effects on the environment, but (1) revisions in the project plans or proposals made by, or agreed to by, the project applicant before the proposed MND is released for public review would avoid the effects or mitigate the effects to a point where clearly no significant effect on the environment would occur, and (2) there is no substantial evidence in light of the whole record before the public agency that the project, as revised, may have a significant effect on the environment.

1.3 Preparation and Processing of this Initial Study/ Mitigated Negative Declaration

The City's Community Development Department, Planning Division, directed and supervised preparation of this IS/MND. The content contained and the conclusions drawn within this IS/MND reflect the independent judgment of the City.

1.4 Initial Study Checklist

Under the City's guidance, the project's Environmental Checklist (i.e., the IS) has been prepared per CEQA Guidelines Sections 15063–15065. The CEQA Guidelines include a suggested checklist to indicate whether a project would have an adverse impact on the environment. The checklist is found in Section 3, Initial Study Checklist, of this document. Following the Environmental Checklist, Sections 3.1 through 3.21 include an explanation and discussion of each significance determination made in the checklist for the project.

For this IS/MND, one of the following four responses is possible for each environmental issue area:

1. Potentially Significant Impact
2. Less-Than-Significant Impact with Mitigation Incorporated
3. Less-Than-Significant Impact
4. No Impact

The checklist and accompanying explanation of checklist responses provide the information and analysis necessary to assess relative environmental impacts of the project. In doing so, the City will determine the extent of additional environmental review, if any, for the project.

1.5 Existing Documents Incorporated by Reference

CEQA Guidelines Sections 15150 and 15168(d)(2) permit and encourage an environmental document to incorporate by reference other documents that provide relevant data. The City of Carson General Plan (City of Carson 2004), the City of Carson General Plan EIR (City of Carson 2002), and the City of Carson Municipal Code (City of Carson 2020a), which are all herein incorporated by reference pursuant to CEQA Guidelines Section 15150, are available for review at the following location:

City of Carson
701 East Carson Street
Carson, California 90749

1.6 Point of Contact

The City is the lead agency for this environmental document. Any questions about preparation of this IS/MND, its assumptions, or its conclusions should be referred to the following:

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Community Development Department, Planning Division
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The point of contact for the project applicant is as follows:

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Sagecrest Planning + Environmental
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San Juan Capistrano, CA 92675
714.313.3713

1.7 Mitigation Measures

Prior to mitigation, project implementation would result in potentially significant impacts to air quality, geology and soils, hazards and hazardous materials, and noise. However, mitigation measures (MMs) have been developed to avoid or reduce these impacts to impacts considered less than significant.

These MMs would be included in the Contractor Specifications and bid documents, as appropriate, and verified as part of the Mitigation Monitoring and Reporting Program. These MMs must be implemented to the satisfaction of the City and are listed below in Table 1-1, Mitigation Measures.

Table 1-1. Mitigation Measures

Potential Impact	Mitigation Measure
Air Quality	
The construction HRA results from the unmitigated scenario show cancer risks exceeding the 10 in 1 million threshold and thus a potentially significant impact at the maximally exposed individual residential receptors.	**MM-AQ-1.** Prior to the start of construction activities, the project applicant, or its designee, shall ensure that all 75 horsepower or greater diesel-powered equipment are powered with California Air Resources Board (CARB)-certified Tier 4 Interim engines, except where the project applicant establishes to the satisfaction of the City of Carson (City) that Tier 4 Interim equipment is not available.

Table 1-1. Mitigation Measures

Potential Impact	Mitigation Measure
	An exemption from this requirement may be granted by the City if (1) the City documents equipment with Tier 4 Interim engines are not reasonably available, and (2) the required corresponding reductions in criteria air pollutant emissions can be achieved for the project from other combinations of construction equipment. Before an exemption may be granted, the construction contractor shall: (1) demonstrate that at least two construction fleet owners/operators in were contacted and that those owners/operators confirmed Tier 4 Interim equipment could not be located within the City during the desired construction schedule; and (2) the proposed replacement equipment has been evaluated using California Emissions Estimator Model (CalEEMod) or other industry standard emission estimation method and documentation provided to the City to confirm that necessary project-generated emissions reductions are achieved.
Cultural Resources	
In the event that unanticipated archaeological resources are encountered during project implementation, impacts to these resources would be potentially significant.	**MM-CUL-1.** Prior to commencement of construction activities for all phases of project implementation, the project applicant shall retain a qualified archaeologist, meeting the Secretary of the Interior's Professional Qualification Standards for Archaeology, to prepare a Worker Environmental Awareness Program (WEAP). The WEAP shall be submitted to the City for review and approval. All construction personnel and monitors who are not trained archaeologists shall be briefed regarding inadvertent discoveries prior to the start of construction activities. A basic presentation and handout or pamphlet shall be prepared in order to ensure proper identification and treatment of inadvertent discoveries. The purpose of the WEAP training is to provide specific details on the kinds of archaeological materials that may be identified during construction of the project and explain the importance of and legal basis for the protection of significant archaeological resources. Each worker shall also learn the proper procedures to follow in the event that cultural resources or human remains are uncovered during ground-disturbing activities. These procedures include work curtailment or redirection, and the immediate contact of the site supervisor and archaeological monitor.
In the event that unanticipated archaeological resources are encountered during project implementation, impacts to these resources would be potentially significant.	**MM-CUL-2.** An on-call qualified archaeologist shall be retained to respond to and address any inadvertent discoveries identified during initial excavation in native soil. Initial excavation is defined as initial construction-related earth moving of sediments from their place of deposition. As it pertains to archaeological monitoring, this definition excludes movement of sediments after they have been initially disturbed or displaced by project-related construction. A qualified archaeological principal investigator, meeting the Secretary of the Interior's Professional Qualification Standards, should oversee and establish monitoring efforts as needed (increase, decrease, or discontinue monitoring frequency) based on the observed potential for construction activities to encounter cultural deposits or material. The archaeological monitor will be responsible for maintaining daily monitoring logs. In the event that potential prehistoric or historical archaeological resources (sites, features, or artifacts) are exposed during construction activities for the project, all construction work occurring within 100 feet of the find shall immediately stop and a qualified archaeologist must be

Table 1-1. Mitigation Measures

Potential Impact	Mitigation Measure
	notified immediately to assess the significance of the find and determine whether or not additional study is warranted. Depending upon the significance of the find, the archaeologist may simply record the find and allow work to continue. If the discovery proves significant under CEQA, additional work such as preparation of an archaeological treatment plan, testing, data recovery, or monitoring may be warranted. If monitoring is conducted, an archaeological monitoring report shall be prepared within 60 days following completion of ground disturbance and submitted to the City for review. This report should document compliance with approved mitigation, document the monitoring efforts, and include an appendix with daily monitoring logs. The final report shall be submitted to the City and the SCCIC.
Geology and Soils	
As is the case with most other development projects that involve earthwork activity, there is always a possibility—albeit low in this instance—that subsurface construction activity could unearth a potentially significant paleontological resource.	**MM-GEO-1.** Prior to commencement of any grading activity on-site, the applicant shall retain a qualified paleontologist meeting the requirements outlined in the Society of Vertebrate Paleontology's 2010 guidelines (SVP 2010). The qualified paleontologist shall attend the preconstruction meeting and be on-site during all rough grading and other significant ground-disturbing activities in previously undisturbed older alluvial deposits, if encountered. These deposits may be encountered at depth below ground surface. In the event that paleontological resources (e.g., fossils) are unearthed during grading, the paleontology monitor will temporarily halt and/or divert grading activity to allow recovery of paleontological resources. The area of discovery will be roped off with a 50-foot radius buffer. Once documentation and collection of the find is completed, the monitor will remove the rope and allow grading to recommence in the area of the find. Following construction-related earthmoving, the qualified paleontologist shall produce a final monitoring report documenting the monitoring program, including geological observations, fossil discoveries, laboratory and curatorial work, and the final disposition of the fossils.
Hazards and Hazardous Materials	
Historical property use as a gas station may have potential impacts in soil, soil vapor, and/or groundwater. Therefore, mitigation would be required to reduce those potentially significant impacts to less than significant.	**MM-HAZ-1. Phase II Environmental Site Assessment and Remediation.** Prior to commencement of construction or excavation activities, a Phase II Environmental Site Assessment (ESA) shall be completed to properly characterize and delineate the potential impacts due to historical property use as a gas station, as well as the potential presence of other related components on site (e.g., underground storage tanks, underground piping). The Phase II ESA will be completed in accordance with the ASTM Standard E 1903-11 (ASTM 2011), and the Public Draft Supplemental Guidance for Screening and Evaluating Vapor Intrusion (DTSC 2020). The laboratory results of the Phase II ESA sampling will be compared to residential Environmental Screening Levels (ESL 2019). Should contaminants be identified that exceed the residential ESLs, remediation will be conducted to reduce contamination to acceptable levels (i.e. below the applicable ESLs) and/or engineering controls will be designed for site development to eliminate exposure to future occupants and site users. If underground storage tanks or related appurtenances are identified, they will be removed in accordance with Los Angeles County CUPA regulations.

Table 1-1. Mitigation Measures

Potential Impact	Mitigation Measure
	The Phase II ESA and remediation will be completed by an environmental professional and licensed engineer or geologist. The engineering controls, if required, will be designed by an engineer licensed in the State of California in accordance with the most recent and applicable federal, state, and local laws and regulations to eliminate potential exposure to future occupants. The Phase II results, remediation results, and/or engineering control designs will be submitted to Los Angeles County and City of Carson for review and approval prior to issuance of building permits.
Historical property use as a gas station may have potential impacts to soils and soil vapor during construction, if not remediated under MM-HAZ-1.	**MM-HAZ-2. Hazardous Materials Contingency Plan**. Prior to commencement of construction or excavation activities, a Hazardous Materials Contingency Plan (HMCP) shall be developed to address impacts identified during the Phase II ESA (MM-HAZ-1) that are not remediated, but instead remain on the project site, and will later be controlled using engineering controls. The HMCP shall include health and safety measures, including periodic worker breathing zone monitoring and monitoring for volatile organic compounds in accordance with SCAQMD Rule 1166, and all applicable health and safety requirements under CalOSHA. Contaminated soils removed from the project site as part of the proposed project development will be characterized, documented, and disposed of in accordance with federal, state, and local regulations related to transportation, handling, and disposal of contaminated soils.
Noise	
Noise levels for all construction phases would exceed the allowable 65 dBA L_{eq} limit at the closest single-family residences. Therefore, mitigation would be required to avoid a potentially significant short-term construction noise impact at the single-family residences closest to the project site.	**MM-NOI-1.** Prior to building construction, the applicant will provide a temporary construction sound barrier wall to reduce construction-related noise to nearby sensitive receptors: A temporary plywood barrier shall be installed to extend the top elevation of the existing, permanent 6-foot-tall masonry wall along the project's east perimeter to a minimum height of 8 feet. Additionally, a temporary construction sound barrier wall of not less than 8 feet in height shall be installed along the project's west and south perimeters. Entry gates for construction vehicles shall be closed when vehicles are not entering or exiting the site. The barrier shall be made of sound-attenuating material (not landscaping). To effectively reduce sound transmission through the barrier, the material chosen must be rigid and sufficiently dense (at least 20 kilograms per square meter). All noise barrier material types are equally effective, acoustically, if they have this density. For example, 5/8-inch plywood, mounted with no gaps between adjacent sheets, would be of sufficient density to achieve the target attenuation. The west and south perimeter barriers shall be 8 feet in height from the ground surface on the construction side of the wall to achieve the goal of blocking direct line-of-sight to the adjacent residence windows. **MM-NOI-2.** At least 20 days prior to commencement of construction, the contractor shall provide written notice to all residential property owners and tenants within 300 feet of the project site that proposed construction activities could affect outdoor or indoor living areas. The notice shall contain a description of the project, a construction schedule including

Table 1-1. Mitigation Measures

Potential Impact	Mitigation Measure
	days and hours of construction, and a description of noise-reduction measures. **MM-NOI-3.** Noise-generating construction activities (which may include preparation for construction work) shall be permitted weekdays between 7:00 a.m. and 6:00 p.m., excluding Sundays and federal holidays. When a holiday falls on a Saturday or Sunday, the preceding Friday or following Monday, respectively, shall be observed as a legal holiday. **MM-NOI-4.** Stationary construction equipment that generates noise that exceeds 85 dBA at the property boundaries shall be shielded with a barrier that meets a Sound Transmission Class rating of 25. **MM-NOI-5.** All construction equipment powered by internal combustion engines shall be properly muffled and maintained. No internal combustion engine shall be operated on the site without a muffler. All diesel equipment shall be operated with closed engine doors and shall be equipped with factory recommended mufflers. Unnecessary idling of internal combustion engines shall be prohibited. **MM-NOI-6.** Air compressors and generators used for construction shall be surrounded by temporary acoustical shelters. Whenever feasible, electrical power shall be used to run air compressors and similar power tools.
The future on-site noise levels would exceed 60 dBA CNEL at the facades of the proposed residences fronting on Main Street. Thus, unmitigated interior noise levels within the habitable rooms of these dwelling units could exceed the 45 dBA CNEL or L_{dn} noise criterion, and as such, mitigation measure MM-NOI-7 is required.	**MM-NOI-7.** Exterior-to-Interior Noise Level Limit: Interior noise levels within the project's dwelling units shall not exceed 45 community noise equivalent level (CNEL). An acoustical analysis report, prepared by an acoustical engineer, shall be submitted describing the acoustical design features of the structure that will satisfy the interior noise standard as part of the building plan check. Once specific building plan information is available, additional exterior-to-interior acoustical analysis shall be conducted for the residences facing both S Main Street and E 213th Street where exterior noise levels are expected to exceed 60 CNEL to demonstrate that interior levels will not exceed 45 CNEL. The information in the analysis shall include wall heights and lengths, room volumes, window and door tables typical for a building plan, as well as information on any other openings in the building shell. With this specific building plan information, the analysis shall determine the predicted interior noise levels at the planned on-site buildings. If predicted noise levels are found to be in excess of 45 CNEL, the report shall identify architectural materials or techniques that could be included to reduce noise levels to 45 CNEL in habitable rooms. Standard measures such as glazing with appropriate Sound Transmission Class (STC) ratings should be considered. The residential units shall be constructed in compliance with all noise attenuation measures required by the report. In addition, appropriate means of air circulation and provision of fresh air shall be provided to allow windows to remain closed for extended intervals of time so that acceptable interior noise levels can be maintained. The mechanical ventilation system shall meet the criteria of The International Building Code (Chapter 12, Section 1203.3 of the 2001 California Building Code).

Table 1-1. Mitigation Measures

Potential Impact	Mitigation Measure
Tribal Cultural Resources	
In the event that unanticipated tribal cultural resources are encountered during project implementation, impacts to these resources would be potentially significant.	NOTE: For purposes of proper implementation of the following mitigation measures, the term "Consulting Tribe/s" is defined pursuant to PRC 21080.3.1 as California Native American tribes that are traditionally and culturally affiliated with the geographic area of the Project site that may have expertise concerning their tribal cultural resources AND have requested and participated in formal AB 52 consultation for the Project. The tribes that fulfill this definition for this Project include the Gabrieleno Band of Mission Indians Kizh Nation, Gabrieleno/Tongva San Gabriel Band of Mission Indians, and Gabrielino Tongva Indians of California. **MM-TCR-1.** Workers Environmental Awareness Program - All Consulting Tribes shall be notified by the applicant/owner/developer of the time and location of the Worker Environmental Awareness Program (WEAP) training no later than 72 hours prior to its scheduled occurrence. The applicant/owner/ developer shall provide all Consulting Tribes access and opportunity to participate in the WEAP training. Further details and requirements pertaining to the WEAP training, please see MND Section 3.5 Cultural Resources mitigation measure CR-1. **MM-TCR-2. Retention of a Native American Monitoring -** Prior to any ground disturbance activities, the applicant/owner/developer shall contact all Consulting Tribes with notification of the approximate commencement of ground disturbing activities. The applicant/owner/developer shall make arrangements with the Consulting Tribes to enter into a Native American Monitoring Agreement with the intent of securing a total of one Native American monitor (from any Tribe under contract) to be present during initial ground disturbance occurring from 1 foot above native soils and below. Initial ground disturbance is defined as initial construction-related earthmoving of sediments from their place of deposition. As it pertains to cultural resource (archaeological or Native American) monitoring, this definition excludes movement of sediments after they have been initially disturbed or displaced by current Project-related construction. The timing of when cultural resource monitoring (archaeological and Native American) shall be required shall be outlined in the Cultural Resource Monitoring and Inadvertent Discovery Plan pursuant to MM-CUL-1. The Plan will be provided to each Consulting Tribe under contract prior to commencement of ground disturbing activities. More than one monitor may be required if multiple areas within the Project site are simultaneously exposed to initial ground disturbance causing monitoring to be hindered by the distance (more than 100 feet apart) of the simultaneous activities. If more than one of the Consulting Tribes would like to serve as a contracted monitoring entity, each Consulting Tribe will be retained under contract with the applicant/owner/developer and monitoring will occur on a nonsynchronous, rotational basis allowing each Consulting Tribe the opportunity to monitor as equally as possible based on the construction schedule and availability of each Consulting Tribe's monitors. **MM-TCR-3. Inadvertent Discovery Clause -** In the event that potential prehistoric or historic-era Native American/Tribal resources (sites, features, or artifacts) are exposed during construction activities for the project, all construction work occurring not less than 50 feet of the find

Table 1-1. Mitigation Measures

Potential Impact	Mitigation Measure
	shall immediately stop and all Consulting Tribes must be notified immediately and be consulted with throughout the assessment of the find and determination of whether or not additional study is warranted. Depending upon the nature of the discovery, the archaeologist may simply record the find and allow work to continue. If the discovery proves potentially significant under CEQA, additional work such as subsurface testing may be warranted. If the discovery is determined significant under CEQA and avoidance is not feasible, data recovery will be required. In the event that human remains and associated funerary objects are inadvertently encountered during construction activities, the remains and funerary objects shall be treated in accordance with state and local regulations that provide requirements with regard to the accidental discovery of human remains, including California Health and Safety Code Section 7050.5, California Public Resources Code Section 5097.98, and CEQA Guidelines Section 15064.5(e). In accordance with these regulations, if human remains are found, the County Coroner must be immediately notified of the discovery. Additionally, all Consulting Tribes must be notified of the discovery immediately. No further excavation or disturbance of the Project site or any nearby (no less than 100 feet) area reasonably suspected to overlie adjacent remains can occur until the County Coroner has determined, within 2 working days of notification of the discovery, if the remains are potentially human in origin. If the County Coroner determines that the remains are, or are believed to be, Native American, he or she is required to notify the NAHC within 24 hours. The NAHC must immediately notify those persons it believes to be the most likely descendant from the deceased Native American. The most likely descendant must then complete their inspection within 48 hours of being granted access to the site. The most likely descendant would then determine, in consultation with the property owner, the disposition and treatment of the human remains.

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2 Project Description

2.1 Project Location

The project site is located in the southern portion of the City, which is located in the South Bay/Harbor area of the Los Angeles County (Figure 2-1, Project Location). Regionally, the City is bordered by the cities of Long Beach, Compton, Torrance, and Los Angeles. In addition, unincorporated Los Angeles County land borders the City on the northwest. Locally, the project site is located north of the intersection of East 213th Street and Main Street.

The approximately 0.52-acre site consists of two parcels (Assessor's Parcel Numbers 7334-002-007 and 7334-002-008). The address associated with the project is 21240–21250 South Main Street, Carson, California 90745.

2.2 Environmental Setting

City of Carson

The City is approximately 19 square miles in the South Bay region of Los Angeles County. Generally, the City is an urban community with a broad mix of land uses, including housing, commercial, office, industrial park, open space, and public serving uses. The City is primarily built out and relatively flat, with most elevations ranging from 20 to 40 feet above mean sea level. The northwest and southeast portions of the City are generally industrial use. Residential uses are generally located on the southwest and northeast parts of the City. Commercial uses are concentrated along Interstate (I) 405.

The City is surrounded by the City of Los Angeles to the northwest, south, and southeast. The City of Compton is adjacent to the northeast, and the City of Long Beach is adjacent to the east. The City is also close to the Ports of Los Angeles and Long Beach, approximately 2 to 3 miles to the south. There are four freeways that provide direct access to the City: I-405 (San Diego Freeway), which bisects the City in an east–west direction; I-710 (Long Beach Freeway), which forms a portion of the eastern portion of the City; State Route 91 (Redondo Beach/Artesia Freeway) in the northern portion of the City; and I-110 (Harbor Freeway), which forms much of the western border of the City (City of Carson 2002).

Existing Project Site

The approximately 0.52-acre project site is currently vacant, disturbed land with no existing structures. The project site is located between I-405, approximately 1 mile to the east, and I-110, approximately 0.5 miles to the west. The General Plan land use designation for the project site is General Commercial, and the current zoning is CG (Commercial, General) (Figure 2-2, Zoning).

Surrounding Land Uses

Land uses surrounding the project site primarily consist of residential uses, along with some commercial and light industrial uses. The project site is bounded by residential uses to the east, East 213 Street and residential uses to the south, South Main Street and residential uses to the west, and automotive-related uses to the north.

2.3 Proposed Project

The project involves the construction of a 19-unit multi-family residential community with associated improvements. The proposed residential community would consist of two three-story apartment buildings, with surface parking and common open space for each of the buildings. The units would consist of two- and four-bedroom floor plans ranging from approximately 945 square feet to 2,061 square feet in size. The design of the project pursues a contemporary architectural style, which would utilize a combination siding and stucco on the exterior of the building. The common open space area would include seating, barbeques, and open play areas. The residential community would be encompassed by a 6-foot concrete masonry unit block wall on the east property line (Figure 2-3, Site Plan).

Site Access and Parking

The project site would be accessible via two entries located at the southern border of the site along 213th Street and at the western border of the site along Main Street. The driveways would connect between the two proposed buildings, providing access to two on-grade parking lots. The project site would be accessible through one driveway on Main Street and one driveway on 213th Street. Parking would be divided between Lot A at 21250 S Main Street and Lot B at 21240 S Main Street, mostly located under the apartment buildings and not visible from the street, as it is blocked form view either by the buildings, screen wall or landscaping screening. Each unit would have covered parking spaces, providing a total of 43 parking spaces, including four Americans with Disabilities Act (ADA) accessible parking spaces and four guest parking spaces for visitors. Additionally, the Carson Lofts Specific Plan requires reciprocal parking. A bicycle parking area would also be provided for resident use.

Utilities and Infrastructure Improvements

The project site has access to existing domestic water, sanitary sewer, stormwater, and dry utility connections.

General Plan Amendment

The current General Plan land use designation of the site is General Commercial (City of Carson 2004). The project applicant has requested a General Plan amendment for the project site from General Commercial to Urban Residential. Therefore, under the proposed project, the entirety of the project site would have a land use designation of Urban Residential.

Zone Change

The current zoning is CG (Commercial, General) (City of Carson 2017). In order to facilitate development of the project as currently proposed, the project applicant has requested a zone change for the project site from CG to Carson Lofts Specific Plan (No. 23-2020); thus, should the zone change and project be approved, the entirety of the project would be zoned Carson Lofts Specific Plan (No. 23-2020).

2.4 Construction and Phasing

Construction of the project is anticipated to start in March 2023 and would last approximately 16 months, ending in July 2024.[1] For a breakdown of construction subphases and schedule, refer to the California Emissions Estimator Model (CalEEMod) air quality modeling outputs provided in Appendix A, Air Quality and Greenhouse Gas.

2.5 Project Approvals

The project would require the following approvals:

- General Plan Amendment No. 109-20
- Carson Lofts Specific Plan No. 23-~~20~~20
- Zone Change (ZCC) No. 184-~~20~~21
- Design Overlay Review No. ~~109~~1832-20

[1] The analysis assumes a construction start date of October 2021, which represents the earliest date construction would initiate. Assuming the earliest start date for construction represents the worst-case scenario for criteria air pollutant emissions because equipment and vehicle emission factors for later years would be slightly less due to more stringent standards for in-use off-road equipment and heavy-duty trucks, as well as fleet turnover replacing older equipment and vehicles in later years.

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3 Initial Study Checklist

1. **Project title:**

   Carson Lofts Apartment Project

2. **Lead agency name and address:**

   City of Carson
   Community Development Department, Planning Division
   701 East Carson Street
   Carson, California 90745

3. **Contact person and phone number:**

   McKina Alexander, Associate Planner
   310.952.1761
   malexander@carsonca.gov

4. **Project location:**

   The approximately 0.52-acre site consists of two parcels (Assessor's Parcel Numbers 7334-002-007 and 7334-002-008). The address associated with the project is 21240-21250 South Main Street, Carson, California 90745.

5. **Project sponsor's name and address:**

   David Blumenthal, AICP, Senior Project Manager
   Sagecrest Planning + Environmental
   27128 Paseo Espada, Suite 1524
   San Juan Capistrano, CA 92675
   714.313.3713

6. **General plan designation:**

   General Commercial

7. **Zoning:**

   CG (Commercial, General)

8. **Description of project. (Describe the whole action involved, including but not limited to later phases of the project, and any secondary, support, or off-site features necessary for its implementation. Attach additional sheets if necessary):**

   The project involves the construction of a 19-unit multifamily residential community with associated improvements. The residential community would consist of two-bedroom units, a four-bedroom unit,

surface parking, and common open space. The floor plans range from approximately 945 square feet to 2,061 square feet in size. The common open space area would include seating, barbeques, and open play areas. The residential community would be encompassed by a 6-foot concrete masonry unit block wall on the east property line.

Refer to Section 2.3, Proposed Project, for a detailed description of the project.

9. **Surrounding land uses and setting (Briefly describe the project's surroundings):**

Land uses surrounding the project site primarily consist of single-family residential uses, along with some commercial and light industrial uses.

10. **Other public agencies whose approval is required (e.g., permits, financing approval, or participation agreement):**

No outside public agency approvals are required.

11. **Have California Native American tribes traditionally and culturally affiliated with the project area requested consultation pursuant to Public Resources Code section 21080.3.1? If so, is there a plan for consultation that includes, for example, the determination of significance of impacts to tribal cultural resources, procedures regarding confidentiality, etc.?**

Note: Conducting consultation early in the CEQA process allows tribal governments, lead agencies, and project proponents to discuss the level of environmental review, identify and address potential adverse impacts to tribal cultural resources, and reduce the potential for delay and conflict in the environmental review process. (See Public Resources Code section 21080.3.2.) Information may also be available from the California Native American Heritage Commission's Sacred Lands File per Public Resources Code section 5097.96 and the California Historical Resources Information System administered by the California Office of Historic Preservation. Please also note that Public Resources Code section 21082.3(c) contains provisions specific to confidentiality.

Yes. See Section 3.18, Tribal Cultural Resources, for additional details.

Environmental Factors Potentially Affected

The environmental factors checked below would be potentially affected by this project, involving at least one impact that is a "Potentially Significant Impact," as indicated by the checklist on the following pages.

☐ Aesthetics	☐ Agriculture and Forestry Resources	☐ Air Quality
☐ Biological Resources	☐ Cultural Resources	☐ Energy
☐ Geology and Soils	☐ Greenhouse Gas Emissions	☐ Hazards and Hazardous Materials
☐ Hydrology and Water Quality	☐ Land Use and Planning	☐ Mineral Resources
☐ Noise	☐ Population and Housing	☐ Public Services
☐ Recreation	☐ Transportation	☐ Tribal Cultural Resources
☐ Utilities and Service Systems	☐ Wildfire	☐ Mandatory Findings of Significance

Determination (To be completed by the Lead Agency)

On the basis of this initial evaluation:

☐ I find that the proposed project COULD NOT have a significant effect on the environment, and a NEGATIVE DECLARATION will be prepared.

☒ I find that although the proposed project could have a significant effect on the environment, there will not be a significant effect in this case because revisions in the project have been made by or agreed to by the project proponent. A MITIGATED NEGATIVE DECLARATION will be prepared.

☐ I find that the proposed project MAY have a significant effect on the environment, and an ENVIRONMENTAL IMPACT REPORT is required.

☐ I find that the proposed project MAY have a "potentially significant impact" or "potentially significant unless mitigated" impact on the environment, but at least one effect (1) has been adequately analyzed in an earlier document pursuant to applicable legal standards, and (2) has been addressed by mitigation measures based on the earlier analysis as described on attached sheets. An ENVIRONMENTAL IMPACT REPORT is required, but it must analyze only the effects that remain to be addressed.

☐ I find that although the proposed project could have a significant effect on the environment, because all potentially significant effects (a) have been analyzed adequately in an earlier ENVIRONMENTAL IMPACT REPORT or NEGATIVE DECLARATION pursuant to applicable standards, and (b) have been avoided or mitigated pursuant to that earlier ENVIRONMENTAL IMPACT REPORT or NEGATIVE DECLARATION, including revisions or mitigation measures that are imposed upon the proposed project, nothing further is required.

Signature Date

Evaluation of Environmental Impacts

1. A brief explanation is required for all answers except "No Impact" answers that are adequately supported by the information sources a lead agency cites in the parentheses following each question. A "No Impact" answer is adequately supported if the referenced information sources show that the impact simply does not apply to projects like the one involved (e.g., the project falls outside a fault rupture zone). A "No Impact" answer should be explained where it is based on project-specific factors as well as general standards (e.g., the project will not expose sensitive receptors to pollutants, based on a project-specific screening analysis).
2. All answers must take account of the whole action involved, including off-site as well as on-site, cumulative as well as project-level, indirect as well as direct, and construction as well as operational impacts.
3. Once the lead agency has determined that a particular physical impact may occur, then the checklist answers must indicate whether the impact is potentially significant, less than significant with mitigation, or less than significant. "Potentially Significant Impact" is appropriate if there is substantial evidence that an effect may be significant. If there are one or more "Potentially Significant Impact" entries when the determination is made, an Environmental Impact Report (EIR) is required.
4. "Negative Declaration: Less Than Significant With Mitigation Incorporated" applies where the incorporation of mitigation measures has reduced an effect from "Potentially Significant Impact" to a "Less Than Significant Impact." The lead agency must describe the mitigation measures, and briefly explain how they reduce the effect to a less than significant level (mitigation measures from "Earlier Analyses," as described in (5) below, may be cross-referenced).
5. Earlier analyses may be used where, pursuant to the tiering, program EIR, or other CEQA process, an effect has been adequately analyzed in an earlier EIR or negative declaration. Section 15063(c)(3)(D). In this case, a brief discussion should identify the following:
    a. Earlier Analysis Used. Identify and state where they are available for review.
    b. Impacts Adequately Addressed. Identify which effects from the above checklist were within the scope of and adequately analyzed in an earlier document pursuant to applicable legal standards, and state whether such effects were addressed by mitigation measures based on the earlier analysis.
    c. Mitigation Measures. For effects that are "Less Than Significant With Mitigation Measures Incorporated," describe the mitigation measures which were incorporated or refined from the earlier document and the extent to which they address site-specific conditions for the project.
6. Lead agencies are encouraged to incorporate into the checklist references to information sources for potential impacts (e.g., general plans, zoning ordinances). Reference to a previously prepared or outside document should, where appropriate, include a reference to the page or pages where the statement is substantiated.
7. Supporting Information Sources: A source list should be attached, and other sources used or individuals contacted should be cited in the discussion.
8. This is only a suggested form, and lead agencies are free to use different formats; however, lead agencies should normally address the questions from this checklist that are relevant to a project's environmental effects in whatever format is selected.
9. The explanation of each issue should identify:
    d. The significance criteria or threshold, if any, used to evaluate each question; and
    e. The mitigation measure identified, if any, to reduce the impact to less than significance

3.1 Aesthetics

		Potentially Significant Impact	Less Than Significant Impact With Mitigation Incorporated	Less Than Significant Impact	No Impact
I.	**AESTHETICS –** Except as provided in Public Resources Code Section 21099, would the project**:**				
a)	Have a substantial adverse effect on a scenic vista?	☐	☐	☐	☒
b)	Substantially damage scenic resources including, but not limited to, trees, rock outcroppings, and historic buildings within a state scenic highway?	☐	☐	☐	☒
c)	In non-urbanized areas, substantially degrade the existing visual character or quality of public views of the site and its surroundings? (Public views are those that are experienced from publicly accessible vantage point). If the project is in an urbanized area, would the project conflict with applicable zoning and other regulations governing scenic quality?	☐	☐	☐	☒
d)	Create a new source of substantial light or glare which would adversely affect day or nighttime views in the area?	☐	☐	☒	☐

a) Would the project have a substantial adverse effect on a scenic vista?

No Impact. Scenic vistas and other important visual resources are typically associated with natural landforms such as mountains, foothills, ridgelines, and coastlines. The City's General Plan Open Space and Conservation Element categories the City's open space as either Recreational Open Space, such as parks and public golf courses, or General Open Space, which consists of utility transmission corridors, drainage and flood facilities, and the Goodyear Blimp Base Airport (City of Carson 2004).

The project site is located in a highly developed area of the City, surrounded by existing residential and urbanized uses. The nearest open space area as identified by the City's General Plan is Carson Park, which is located approximately 0.1 miles south of the project site. Due to the distance and houses between the park and the project site, the project would not be visible from this open space resource, therefore, no impacts associated with scenic vistas would occur.

b) Would the project substantially damage scenic resources including, but not limited to, trees, rock outcroppings, and historic buildings within a state scenic highway?

No Impact. There are no officially designated scenic highways within the City. According to the California Department of Transportation (Caltrans), the nearest eligible state scenic highway is the segment of State Route 1 (Pacific Coast Highway) located approximately 8.5 miles southeast of the project site in the City of

Long Beach (Caltrans 2021). Due to the intervening urban environment and natural topography located between the project site and this eligible state scenic highway, development of the project would occur outside of the viewshed of this, and any other, designated scenic highway. Therefore, no impacts associated with state scenic highways would occur.

c) *In non-urbanized areas, would the project substantially degrade the existing visual character or quality of public views of the site and its surroundings? (Public views are those that are experienced from publicly accessible vantage point). If the project is in an urbanized area, would the project conflict with applicable zoning and other regulations governing scenic quality?*

No Impact. Under existing conditions, the project site is a paved, underutilized, vacant lot. The project would introduce a 19-unit multifamily residential community with associated improvements. The design of the project would include a contemporary architectural style, utilizing a combination of stucco and siding. Additionally, the project would be subject to review by the City to ensure that design of the proposed development is consistent with all appliable design requirements, standards, and regulations set forth in the Carson Municipal Code for the Carson Lofts Specific Plan (No. 23-2020) zoning designation. The proposed architecture would be assessed as part of the design review process to ensure that an integrated architectural theme is proposed that is compatible and would complement the site and surrounding properties. Overall, the project would enhance the existing project site through new landscape, hardscape, and other improvements on site. As such, compared to the existing aesthetic conditions, the introduction of residential uses would not degrade the site's visual character. Therefore, no impacts associated with visual quality and character would occur.

d) *Would the project create a new source of substantial light or glare which would adversely affect day or nighttime views in the area?*

Less Than Significant Impact. The project would introduce new sources of nighttime lighting onto project site as a result of installation of new exterior light fixtures that are generally required for safety, security, and aesthetic purposes. Pursuant to Municipal Code Section 9127.1, all exterior lighting installed on the project site must be directed away from all adjoining and nearby residential property and arranged and controlled so it would not create a nuisance or hazard to traffic or to the living environment. As such, all exterior lighting would be shielded and/or recessed to reduce light trespass (i.e., excessive or unwanted light generated on one property illuminating another property). Therefore, based on compliance with local requirements, impacts associated with light and nighttime glare would be less than significant.

3.2 Agriculture and Forestry Resources

		Potentially Significant Impact	Less Than Significant Impact With Mitigation Incorporated	Less Than Significant Impact	No Impact
II.	**AGRICULTURE AND FORESTRY RESOURCES – In determining whether impacts to agricultural resources are significant environmental effects, lead agencies may refer to the California Agricultural Land Evaluation and Site Assessment Model (1997) prepared by the California Department of Conservation as an optional model to use in assessing impacts on agriculture and farmland. In determining whether impacts to forest resources, including timberland, are significant environmental effects, lead agencies may refer to information compiled by the California Department of Forestry and Fire Protection regarding the state's inventory of forest land, including the Forest and Range Assessment Project and the Forest Legacy Assessment project; and forest carbon measurement methodology provided in Forest Protocols adopted by the California Air Resources Board. Would the project:**				
a)	Convert Prime Farmland, Unique Farmland, or Farmland of Statewide Importance (Farmland), as shown on the maps prepared pursuant to the Farmland Mapping and Monitoring Program of the California Resources Agency, to non-agricultural use?	☐	☐	☐	☒
b)	Conflict with existing zoning for agricultural use, or a Williamson Act contract?	☐	☐	☐	☒
c)	Conflict with existing zoning for, or cause rezoning of, forest land (as defined in Public Resources Code section 12220(g)), timberland (as defined by Public Resources Code section 4526), or timberland zoned Timberland Production (as defined by Government Code section 51104(g))?	☐	☐	☐	☒
d)	Result in the loss of forest land or conversion of forest land to non-forest use?	☐	☐	☐	☒
e)	Involve other changes in the existing environment which, due to their location or nature, could result in conversion of Farmland, to non-agricultural use or conversion of forest land to non-forest use?	☐	☐	☐	☒

a) Would the project convert Prime Farmland, Unique Farmland, or Farmland of Statewide Importance (Farmland), as shown on the maps prepared pursuant to the Farmland Mapping and Monitoring Program of the California Resources Agency, to non-agricultural use?

No Impact. The project site is located in a highly urbanized area. According to the California Department of Conservation's California Important Farmland Finder, most of Los Angeles County—including the City—is not mapped under the Farmland Mapping and Monitoring Program, and, thus, does not contain Prime Farmland, Unique Farmland, or Farmland of Statewide Importance (collectively Important Farmland) (DOC 2016). Therefore, no impacts associated with the conversion of Important Farmland would occur.

b) Would the project conflict with existing zoning for agricultural use, or a Williamson Act contract?

No Impact. The project site and surrounding areas are not zoned for agricultural uses, but instead for residential and commercial uses (City of Carson 2004). According to the City of Carson General Plan EIR, the City does not contain any land under a Williamson Act contract (City of Carson 2002). As such, implementation of the project would not conflict with existing zoning for agricultural use or land under a Williamson Act contract. Therefore, no impacts associated with agricultural zoning or Williamson Act contracts would occur.

c) Would the project conflict with existing zoning for, or cause rezoning of, forest land (as defined in Public Resources Code section 12220(g)), timberland (as defined by Public Resources Code section 4526), or timberland zoned Timberland Production (as defined by Government Code section 51104(g))?

No Impact. The project site is located within a highly developed part of the City. According to the City's Zoning Map, the project site is not located on or adjacent to forestland, timberland, or timberland zoned Timberland Production (City of Carson 2004). Therefore, no impacts associated with forestland or timberland would occur.

d) Would the project result in the loss of forest land or conversion of forest land to non-forest use?

No Impact. The project site is located in a highly urbanized area. The project site is not located on or adjacent to forestland. No private timberlands or public lands with forests are located in the City. Therefore, no impact associated with the loss or conversion of forestland would occur.

e) Would the project involve other changes in the existing environment which, due to their location or nature, could result in conversion of Farmland, to non-agricultural use or conversion of forest land to non-forest use?

No Impact. The project site is not located on or adjacent to any parcels identified as Important Farmland or forestland. In addition, the project would not involve changes to the existing environment that would result in the indirect conversion of Important Farmland or forestland located away from the project site. Therefore, no impacts associated with the conversion of Farmland or forestland would occur.

3.3 Air Quality

	Potentially Significant Impact	Less Than Significant Impact With Mitigation Incorporated	Less Than Significant Impact	No Impact
III. AIR QUALITY – Where available, the significance criteria established by the applicable air quality management district or air pollution control district may be relied upon to make the following determinations. Would the project:				
a) Conflict with or obstruct implementation of the applicable air quality plan?	☐	☐	☒	☐

	Potentially Significant Impact	Less Than Significant Impact With Mitigation Incorporated	Less Than Significant Impact	No Impact
b) 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?	☐	☐	☒	☐
c) Expose sensitive receptors to substantial pollutant concentrations?	☐	☒	☐	☐
d) Result in other emissions (such as those leading to odors) adversely affecting a substantial number of people?	☐	☐	☒	☐

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

Less Than Significant Impact. The proposed project area is located in the City of Carson, within the South Coast Air Basin (SCAB), which includes the non-desert portions of Los Angeles, Riverside, and San Bernardino Counties, and all of Orange County. The SCAB is within the jurisdictional boundaries of the South Coast Air Quality Management District (SCAQMD).

The SCAQMD administers the SCAB's Air Quality Management Plan (AQMP), which is a comprehensive document outlining an air pollution control program for attaining the California Ambient Air Quality Standards (CAAQS) and National Ambient Air Quality Standards (NAAQS). The most recently adopted AQMP for the SCAB is the 2016 AQMP (SCAQMD 2017a). The 2016 AQMP focuses on available, proven, and cost-effective alternatives to traditional air quality strategies while seeking to achieve multiple goals in partnership with other entities seeking to promote reductions in greenhouse gases (GHGs) and toxic risk, as well as efficiencies in energy use, transportation, and goods movement (SCAQMD 2017a).

The purpose of a consistency finding with regard to the AQMP is to determine if a project is consistent with the assumptions and objectives of the regional air quality plans, and if it would interfere with the region's ability to comply with federal and state air quality standards. The SCAQMD has established criteria for determining consistency with the currently applicable AQMP in Chapter 12, Sections 12.2 and 12.3 of the SCAQMD CEQA Air Quality Handbook. These criteria are as follows (SCAQMD 1993):

- **Consistency Criterion No. 1:** Whether the project would result in an increase in the frequency or severity of existing air quality violations, cause or contribute to new violations, or delay timely attainment of the ambient air quality standards or interim emission reductions in the AQMP.
- **Consistency Criterion No. 2:** Whether the project would exceed the assumptions in the AQMP or increments based on the year of project buildout and phase.

To address the first criterion, project-generated criteria air pollutant emissions have been estimated and analyzed for significance and are addressed under Section 3.3(b). Detailed results of this analysis are included in Appendix A, Air Quality and Greenhouse Gas Calculations. As presented in Section 3.3(b), construction and operation of the proposed project would not generate criteria air pollutant emissions that exceed the SCAQMD's thresholds, and it would therefore be consistent with Criterion No. 1.

The second criterion regarding the potential of the proposed project to exceed the assumptions in the AQMP or increments based on the year of project buildout and phase is primarily assessed by determining consistency between the proposed project's land use designations and its potential to generate population growth. In general, projects are considered consistent with, and not in conflict with or obstruct implementation of, the AQMP if the growth they produce in socioeconomic factors is consistent with the underlying regional plans used to develop the AQMP (SCAQMD 1993). The SCAQMD primarily uses demographic growth forecasts for various socioeconomic categories (e.g., population, housing, and employment by industry) developed by the Southern California Association of Governments (SCAG) for its 2016–2040 Regional Transportation Plan/Sustainable Communities Strategy (RTP/SCS) (SCAG 2016). SCAQMD uses this document, which is based on general plans for cities and counties in the SCAB, to develop the AQMP emissions inventory (SCAQMD 2017a).[2] The SCAG RTP/SCS, and associated Regional Growth Forecast, are generally consistent with the local plans; therefore, the 2016 AQMP is generally consistent with local government plans.

The General Plan land use designation for the project site is General Commercial, and the current zoning is CG (Commercial, General). Land uses surrounding the project site primarily consist of residential uses, along with some commercial and light industrial uses. The project site is bounded by residential uses to the east, East 213 Street and residential uses to the south, South Main Street and residential uses to the west, and automotive-related uses to the north. The project involves the construction of a 19-unit multi-family residential community with associated improvements. The proposed residential community would consist of two three-story apartment buildings, with surface parking, and common open space for each of the buildings. To facilitate development of the project, the project applicant has requested a General Plan amendment for the project site from General Commercial to Urban Residential; thus, should the General Plan amendment and project be approved, the entirety of the project site would have a land use designation of Urban Residential.

As described in Section 3.11, the analysis of land use consistency considers whether the project would cause a significant environmental impact due to a conflict with any applicable land use plan, policy, or regulations that are applicable to the project. The analysis provided in Section 3.11 focused on goals and policies related to the 2020 RTP/SCS, the City's Land Use Element, and the Zoning Ordinance, which are applicable to the project. Based on consistency with the applicable goals and policies of the RTP/SCS, the City's Land Use Element, and the Zoning Ordinance, the project would not conflict with an applicable land use plan, policy, or regulation of an agency with jurisdiction over the project. Additionally, the 2016 RTP/SCS forecasted 2040 population for the Carson is 107,900 compared to the 2018 population of 92,517. The 19-unit multi-family residential community would be included in the forecasted growth in population. Therefore, impacts associated with land use plans, policies, and regulations would be less than significant.

Since the proposed project is not anticipated to conflict with applicable goals and policies of the RTP/SCS, the City's Land Use Element, and the Zoning Ordinance, it would not conflict with or exceed the assumptions in the 2016 AQMP.

[2] Information necessary to produce the emissions inventory for the SCAB is obtained from the SCAQMD and other governmental agencies, including the California Air Resources Board, Caltrans, and SCAG. Each of these agencies is responsible for collecting data (e.g., industry growth factors, socioeconomic projections, travel activity levels, emission factors, emission speciation profile, and emissions) and developing methodologies (e.g., model and demographic forecast improvements) required to generate a comprehensive emissions inventory. SCAG incorporates these data into its Travel Demand Model for estimating/projecting vehicle miles traveled and driving speeds. SCAG's socioeconomic and transportation activities projections in their 2016–2040 Regional Transportation Plan/Sustainable Communities Strategy are integrated in the 2016 AQMP (SCAQMD 2017a).

In summary, based on the considerations presented for the two criteria, impacts relating to the proposed project's potential to conflict with or obstruct implementation of the applicable AQMP would be less than significant.

b) Would the project 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?

Less Than Significant Impact. A quantitative analysis was conducted to determine whether proposed activities might result in emissions of criteria air pollutants that may cause exceedances of the NAAQS or CAAQS, or cumulatively contribute to existing nonattainment of ambient air quality standards. Criteria air pollutants include ozone (O_3), nitrogen dioxide (NO_2), carbon monoxide (CO), sulfur dioxide, particulate matter with an aerodynamic diameter less than or equal to 10 microns (PM_{10}; course particulate matter), particulate matter with an aerodynamic diameter less than or equal to 2.5 microns ($PM_{2.5}$; fine particulate matter), and lead. Pollutants that are evaluated herein include volatile organic compounds (VOCs) and oxides of nitrogen (NO_X), which are important because they are precursors to O_3, as well as CO, sulfur oxides (SO_X), PM_{10}, and $PM_{2.5}$.

Regarding NAAQS and CAAQS attainment status,[3] the SCAB is designated as a nonattainment area for federal and state O_3 and $PM_{2.5}$ standards (CARB 2017; EPA 2018a). The SCAB is also designated as a nonattainment area for state PM10 standards; however, it is designated as an attainment area for federal PM_{10} standards. The SCAB is designated as an attainment area for federal and state CO and NO_2 standards, as well as for state sulfur dioxide standards. Although the SCAB has been designated as nonattainment for the federal rolling 3-month average lead standard, it is designated attainment for the state lead standard.[4]

The proposed project would result in emissions of criteria air pollutants for which the California Air Resources Board (CARB) and U.S. Environmental Protection Agency (EPA) have adopted ambient air quality standards (i.e., the NAAQS and CAAQS). Projects that emit these pollutants have the potential to cause, or contribute to, violations of these standards. The SCAQMD CEQA Air Quality Significance Thresholds, as revised in April 2019, set forth quantitative emission significance thresholds for criteria air pollutants, which, if exceeded, would indicate the potential for a project to contribute to violations of the NAAQS or CAAQS (SCAQMD 2019). Table 3.3-1 lists the SCAQMD Air Quality Significance Thresholds.

Table 3.3-1. South Coast Air Quality Management District Air Quality Significance Thresholds

Criteria Pollutants Mass Daily Thresholds		
Pollutant	*Construction (in pounds/day)*	*Operation (in pounds/day)*
VOC	75	55
NO_x	100	55
CO	550	550
SO_x	150	150
PM_{10}	150	150
$PM_{2.5}$	55	55

[3] An area is designated as in attainment when it is in compliance with the NAAQS and/or the CAAQS. These standards for the maximum level of a given air pollutant that can exist in the outdoor air without unacceptable effects on human health or the public welfare are set by the U.S. Environmental Protection Agency and CARB, respectively. Attainment = meets the standards; attainment/maintenance = achieves the standards after a nonattainment designation; nonattainment = does not meet the standards.

[4] The phaseout of leaded gasoline started in 1976. Since gasoline no longer contains lead, the project is not anticipated to result in impacts related to lead; therefore, it is not discussed in this analysis.

Table 3.3-1. South Coast Air Quality Management District Air Quality Significance Thresholds

Criteria Pollutants Mass Daily Thresholds		
Lead[a]	3	3
Toxic Air Contaminants and Odor Thresholds		
Toxic air contaminants[b]	Maximum incremental cancer risk ≥ 10 in 1 million Cancer Burden > 0.5 excess cancer cases (in areas ≥ 1 in 1 million) Chronic and Acute Hazard index ≥ 1.0 (project increment)	
Odor	Project creates an odor nuisance pursuant to SCAQMD Rule 402	

Source: SCAQMD 2019.
CO = carbon monoxide; NO_x = oxides of nitrogen; $PM_{2.5}$ = particulate matter with a diameter less than or equal to 2.5 microns (fine particulate matter); PM_{10} = particulate matter with a diameter less than or equal to 10 microns (coarse particulate matter); SCAQMD = South Coast Air Quality Management District; SO_x = sulfur oxides; VOC = volatile organic compound.
[a] The phaseout of leaded gasoline started in 1976. Since gasoline no longer contains lead, the proposed project is not anticipated to result in impacts related to lead; therefore, it is not discussed in this analysis.
[b] Toxic air contaminants include carcinogens and noncarcinogens.

A project would result in a substantial contribution to an existing air quality violation of the NAAQS or CAAQS for O_3, which is a nonattainment pollutant, if the proposed project's construction or operational emissions would exceed the SCAQMD VOC or NO_X thresholds shown in Table 3.3-1. These emission-based thresholds for O_3 precursors are intended to serve as a surrogate for an "ozone significance threshold" (i.e., the potential for adverse O_3 impacts to occur) because O_3 itself is not emitted directly, and the effects of an individual project's emissions of O_3 precursors (i.e., VOCs and NO_X) on O_3 levels in ambient air cannot reliably be determined through air quality models or other quantitative methods.

The following discussion quantitatively evaluates project-generated emissions and impacts that would result from implementation of the proposed project.

Construction Emissions

The project proposes construction of a 19-unit multi-family residential community with associated improvements. The proposed residential community would consist of two three-story apartment buildings, with surface parking, and common open space for each of the buildings. The approximately 0.52-acre project site is currently vacant, disturbed land with no existing structures. The project site is between I-405, approximately 1 mile to the east, and I-110, approximately 0.5 miles to the west.

Construction of the proposed project would result in the temporary addition of pollutants to the local airshed caused by on-site sources (e.g., off-road construction equipment, soil disturbance, VOC off-gassing from asphalt pavement application) and off-site sources (e.g., vendor trucks, haul trucks, and worker vehicle trips). Specifically, entrained dust results from the exposure of earth surfaces to wind from the direct disturbance and movement of soil, resulting in PM_{10} and $PM_{2.5}$ emissions. Internal combustion engines used by construction equipment, haul trucks, vendor trucks (i.e., delivery trucks), and worker vehicles would result in emissions of VOC, NO_x, CO, PM_{10}, and $PM_{2.5}$. Construction emissions can vary substantially from day to day depending on the level of activity; the specific type of operation; and, for dust, the prevailing weather conditions.

The proposed project would be required to comply with SCAQMD Rule 403 to control dust emissions generated during any dust-generating activities. Standard construction practices that would be employed to reduce fugitive dust emissions include watering of the active dust areas up to two times per day, depending on weather conditions.

For purposes of estimating proposed project emissions, and based on information provided by the applicant, it is assumed that construction of the proposed project would commence in October 2021 and would last approximately 16 months.[5] The analysis contained herein is based on the following schedule assumptions (duration of phases is approximate). The majority of the phases listed below would occur concurrently and would not occur sequentially in isolation. Detailed construction equipment modeling assumptions are provided in Appendix B.

General construction equipment modeling assumptions are provided in Table 3.3-2. Default values for equipment mix, horsepower, and load factor provided in CalEEMod were used for all construction equipment. It is anticipated that approximately 9,600 cubic yards of material would be exported, and no fill material would be imported during construction. For the analysis, it was generally assumed that heavy-duty construction equipment would be operating at the site 5 days per week.

Table 3.3-2. Construction Workers, Vendor Trips, and Equipment Use per Day

Construction Phase	One-Way Vehicle Trips			Equipment		
	Average Daily Worker Trips	*Average Daily Vendor Truck Trips*	*Total Haul Truck Trips*	*Equipment Type*	*Quantity*	*Usage Hours*
Site preparation	6	0	0	Graders	1	8
				Tractors/Loaders/Backhoes	1	8
Grading	10	0	1,200	Concrete/Industrial Saws	1	8
				Rubber Tired Dozers	1	1
				Tractors/Loaders/Backhoes	2	6
Building Construction	40	6	0	Cranes	1	4
				Forklifts	2	6
				Tractors/Loaders/Backhoes	2	8
Paving	18	0	0	Cement and Mortar Mixers	4	6
				Pavers	1	7
				Rollers	1	7
				Tractors/Loaders/Backhoes	1	7
Architectural Coatings	6	0	0	Air Compressors	1	6

Note: See Appendix B for additional details.

Table 3.3-3 shows the estimated maximum daily construction emissions associated with the construction phase of the proposed project.

[5] The analysis assumes a construction start date of October 2021, which represents the earliest date construction would initiate. Assuming the earliest start date for construction represents the worst-case scenario for criteria air pollutant emissions because equipment and vehicle emission factors for later years would be slightly less due to more stringent standards for in-use off-road equipment and heavy-duty trucks, as well as fleet turnover replacing older equipment and vehicles in later years.

Table 3.3-3. Estimated Maximum Daily Construction Criteria Air Pollutant Emissions – Unmitigated

Year	VOCs	NO_x	CO	SO_x	PM_{10}[a]	$PM_{2.5}$[a]
	Pounds per Day					
2021	1.36	23.17	11.55	0.06	2.50	1.17
2022	0.85	7.44	8.83	0.02	0.86	0.48
2023	29.47	6.76	8.63	0.02	0.81	0.43
Maximum	***29.47***	***23.17***	***11.55***	***0.06***	***2.50***	***1.17***
SCAQMD threshold	*75*	*100*	*550*	*150*	*150*	*55*
Threshold exceeded?	**No**	**No**	**No**	**No**	**No**	**No**

Source: SCAQMD 2019.
Notes: CO = carbon monoxide; NO_x = oxides of nitrogen; $PM_{2.5}$ = particulate matter with a diameter less than or equal to 2.5 microns (fine particulate matter); PM_{10} = particulate matter with a diameter less than or equal to 10 microns (coarse particulate matter); SCAQMD = South Coast Air Quality Management District; SO_x = sulfur oxides; VOC = volatile organic compound.
See Appendix B for detailed results.
[a] These estimates reflect control of fugitive dust (watering twice daily) required by SCAQMD Rule 403 (SCAQMD 2005).

As shown in Table 3.3-3, the proposed project's maximum unmitigated daily construction emissions would not exceed the SCAQMD thresholds for any criteria air pollutant.

Operational Emissions

Operation of the proposed project would generate VOC, NO_x, CO, SO_x, PM_{10}, and $PM_{2.5}$ emissions from area sources, energy sources, and mobile sources, which are discussed below. Operational year 2023 was assumed based upon construction completion.[6]

Area Sources

CalEEMod was used to estimate operational emissions from area sources, including emissions from consumer product use, architectural coatings, and landscape maintenance equipment. Emissions associated with natural gas usage in space heating and water heating are calculated in the building energy use module of CalEEMod, as described in the following text. The model also calculates the emissions from the combustion of wood or natural gas in stoves and fireplaces. However, the proposed project does not include wood stoves or fireplaces.

Consumer products are chemically formulated products used by household and institutional consumers, including detergents; cleaning compounds; polishes; floor finishes; cosmetics; personal care products; home, lawn, and garden products; disinfectants; sanitizers; aerosol paints; and automotive specialty products. Other paint products, furniture coatings, or architectural coatings are not considered consumer products (CAPCOA 2017). Consumer product VOC emissions are estimated in CalEEMod based on the floor area of residential buildings and on the default factor of pounds of VOC per building square foot per day. The CalEEMod default values for consumer products were assumed.

VOC off-gassing emissions result from evaporation of solvents contained in surface coatings such as in paints and primers using during building maintenance. CalEEMod calculates the VOC evaporative

[6] At the time of the preparation of this analysis, it was anticipated that operation would start in 2023. However, due to delays, operation is now anticipated to begin in 2024. To maintain consistency with other technical analysis herein, an operational year of 2023 is maintained throughout the IS/MND because it represents a worst-case scenario for criteria air pollutant and GHG emissions. This is because equipment and vehicle emission factors for later years would be slightly less due to more stringent standards for in-use off-road equipment and heavy-duty trucks, as well as fleet turnover replacing older equipment and vehicles in later years.

emissions from application of surface coatings based on the VOC emission factor, the building square footage, the assumed fraction of surface area, and the reapplication rate. Model default values for residential Low-VOC coating rates of 50 grams per liter for interior and exterior coatings and default reapplication rate of 10% of area per year is assumed. Consistent with CalEEMod defaults, it is assumed that the surface area for painting equals 2.7 times the floor square footage, with 75% assumed for interior coating and 25% assumed for exterior surface coating (CAPCOA 2017).

Landscape maintenance includes fuel combustion emissions from equipment such as lawn mowers, rototillers, shredders/grinders, blowers, trimmers, chainsaws, and hedge trimmers. The emissions associated from landscape equipment use are estimated based on CalEEMod default values for emission factors (grams per square foot of building space per day) and number of summer days (when landscape maintenance would generally be performed) and winter days. For the SCAB, the average annual number of summer days is estimated at 250 days (CAPCOA 2017).

Energy Sources

As represented in CalEEMod, energy sources include emissions associated with building electricity and natural gas usage (non-hearth). Electricity use would contribute indirectly to criteria air pollutant emissions; however, the emissions from electricity use are only quantified for GHGs in CalEEMod, since criteria pollutant emissions occur at the site of the power plant, which is typically off site.

CalEEMod default values for energy consumption were applied for the proposed project analysis. The energy use from residential land uses is calculated in CalEEMod based on the California Residential End-Use Survey database. Energy use in buildings (both natural gas and electricity) is divided by the program into end use categories subject to Title 24 requirements (end uses associated with the building envelope, such as the heating, ventilation, and air conditioning (HVAC) system, water heating system, and integrated lighting) and those not subject to Title 24 requirements (such as appliances, electronics, and miscellaneous "plug-in" uses). The CalEEMod 2020.4.0assumes compliance with the 2019 Title 24 requirements.

Mobile Sources

Following the completion of construction activities, the proposed project would generate criteria pollutant emissions from mobile sources (vehicular traffic), as a result of residential passenger vehicles. Based on trip rates from the Trip Generation, 10th Edition, Institute of Transpiration Engineers (ITE 2017), the proposed project would result in 103 weekday, 93 Saturday, and 78 Sunday one-way vehicle trips. Emissions from the mobile sources during operation of the proposed project were estimated using CalEEMod adjusted for the Institute of Transpiration Engineers trip rates. Emission calculation equations and assumptions were primarily derived from CalEEMod.

Table 3.3-4 presents the maximum daily emissions associated with operation of the proposed project in 2023 at build-out. The values shown are the maximum summer and winter daily emissions results from CalEEMod. Complete details of the emissions calculations are provided in Appendix B.

Table 3.3-4 Estimated Maximum Daily Operational Criteria Air Pollutant Emissions - Unmitigated

Emission Source	VOC	NO_x	CO	SO_x	PM_{10}	$PM_{2.5}$
	Pounds per Day					
Area	0.57	0.29	1.69	<0.01	0.03	0.03

Table 3.3-4 Estimated Maximum Daily Operational Criteria Air Pollutant Emissions - Unmitigated

Emission Source	VOC	NO_x	CO	SO_x	PM_{10}	$PM_{2.5}$
	Pounds per Day					
Energy	0.01	0.04	0.02	<0.01	<0.01	<0.01
Mobile	0.32	0.36	3.32	<0.01	0.75	0.02
Total	**0.90**	**0.69**	**5.03**	<0.01	**0.78**	**0.23**
SCAQMD Threshold	*55*	*55*	*550*	*150*	*150*	*55*
Threshold Exceeded?	**No**	**No**	**No**	**No**	**No**	**No**

Notes:
VOC = volatile organic compound; NO_x = oxides of nitrogen; CO = carbon monoxide; SO_x = sulfur oxides; PM_{10} = coarse particulate matter; $PM_{2.5}$ = fine particulate matter; SCAQMD = South Coast Air Quality Management District. See Appendix B for complete results. These emissions reflect CalEEMod "unmitigated" output and operational year 2023. Values of "<0.01" indicate that the estimated emissions are less than two decimals. The total values may not add up exactly due to rounding.

As shown in Table 3.3-4, maximum daily operational emissions of VOC, NO_x, CO, SO_x, PM_{10}, and $PM_{2.5}$ generated by the proposed project would not exceed the SCAQMD's significance thresholds.

Air pollution is largely a cumulative impact. The nonattainment status of regional pollutants is a result of past and present development, and the SCAQMD develops and implements plans for future attainment of ambient air quality standards. Based on these considerations, project-level thresholds of significance for criteria pollutants are used in the determination of whether a project's individual emissions would have a cumulatively considerable contribution on air quality. If a project's emissions would exceed the SCAQMD significance thresholds, it would be considered to have a cumulatively considerable contribution. Conversely, projects that do not exceed the project-specific thresholds are generally not considered to be cumulatively significant (Goss and Kroeger 2003).

As previously discussed, the SCAB has been designated as a federal nonattainment area for O_3 and $PM_{2.5}$, and a state nonattainment area for O_3, PM_{10}, and $PM_{2.5}$. The nonattainment status is the result of cumulative emissions from various sources of air pollutants and their precursors within the SCAB, including motor vehicles, off-road equipment, and commercial and industrial facilities. Construction and operational activities of the proposed project would generate VOC and NO_x emissions (precursors to O_3) and emissions of PM_{10} and $PM_{2.5}$. However, as indicated in Tables 3.3-3 and 3.3-4, project-generated emissions would not exceed the SCAQMD emission-based significance thresholds for VOCs, NO_x, PM_{10}, or $PM_{2.5}$.

Cumulative localized impacts would potentially occur if a project were to occur concurrently with another off-site project. Schedules for potential future projects near the project area are currently unknown; therefore, potential impacts associated with two or more simultaneous projects would be considered speculative.[7] However, future projects would be subject to CEQA and would require air quality analysis and, where necessary, mitigation. Criteria air pollutant emissions associated with construction activity of future projects would be reduced through implementation of control measures required by the SCAQMD. Cumulative PM_{10} and $PM_{2.5}$ emissions would be reduced because all future

[7] The CEQA Guidelines state that if a particular impact is too speculative for evaluation, the agency should note its conclusion and terminate discussion of the impact (14 CCR 15145).

projects would be subject to SCAQMD Rule 403 (Fugitive Dust), which sets forth general and specific requirements for all sites in the SCAQMD.

Based on the above considerations, the proposed project would not result in a cumulatively considerable increase in emissions of nonattainment pollutants, and impacts would be less than significant during construction and operation.

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

Sensitive Receptors

Sensitive receptors are those individuals more susceptible to the effects of air pollution than the population at large. People most likely to be affected by air pollution include children, the elderly, and people with cardiovascular and chronic respiratory diseases. According to the SCAQMD, sensitive receptors include sites such as residences, schools, playgrounds, childcare centers, long-term healthcare facilities, rehabilitation centers, convalescent centers, and retirement homes (SCAQMD 1993).

As described previously, the land uses surrounding the project site primarily consist of residential uses, along with some commercial and light industrial uses. The project site is bounded by residential uses to the east, East 213 Street and residential uses to the south, South Main Street and residential uses to the west, and automotive-related uses to the north. The nearest sensitive receptors are residences located adjacent to the project site to the east.

Localized Significance Thresholds

A localized significance threshold (LST) analysis was performed to evaluate localized air quality impacts to sensitive receptors in the immediate vicinity of the proposed project as a result of proposed project activities. The impacts were analyzed using methods consistent with those in the SCAQMD's Final Localized Significance Threshold Methodology (SCAQMD 2008). The proposed project is located within Source-Receptor Area 4 (Carson).

The greatest on-site daily emissions of NO_x, CO, PM_{10}, and $PM_{2.5}$ generated during construction occurred during the grading period of the proposed project construction, it was assumed that one rubber-tired dozer and two crawler tractors would be used based on CalEEMod defaults. CalEEMod default values assume that during an 8-hour day, one rubber-tired dozer and crawler tractors can each disturb a maximum of 0.5 acres/8 hr-day and a scraper can disturb a maximum of 1.0 acres/8 hr-day. This results in 1.5 acres disturbed per day. The SCAQMD LST values for 1.5 acres were interpolated within Source-Receptor Area 4 with a receptor distance of 25 meters. Because the nearest sensitive receptors are located adjacent to the project site, the minimum available distance of 25 meters was chosen for the analysis.

Project construction activities would result in temporary sources of on-site criteria air pollutant emissions associated with construction equipment exhaust and dust-generating activities. According to the Final Localized Significance Threshold Methodology, "off-site mobile emissions from the project should not be included in the emissions compared to the LSTs" (SCAQMD 2008). Trucks and worker trips associated with the proposed project are not expected to cause substantial air quality impacts to sensitive receptors along off-site roadways since emissions would be relatively brief in nature and would cease once the vehicles pass through the main streets. Therefore, off-site emissions from trucks and worker vehicle trips are not

included in the LST analysis. The maximum daily on-site construction emissions generated during construction of the proposed project is presented in Table 3.3-5 and compared to the SCAQMD localized significance criteria for Source-Receptor Area 4 to determine whether project-generated on-site construction emissions would result in potential LST impacts.

Table 3.3-5. Construction Localized Significance Thresholds Analysis

Year	NO_2	CO	PM_{10}	$PM_{2.5}$
	Pounds per Day (On Site)[a]			
2021	18.84	8.73	0.81	0.59
2022	7.12	7.43	0.37	0.34
2023	5.61	7.36	0.32	0.30
Maximum	**8.84**	**8.73**	**0.81**	**0.59**
SCAQMD LST Criteria	*69.50*	*713.50*	*5.50*	*4.00*
Threshold Exceeded?	**No**	**No**	**No**	**No**

Source: SCAQMD 2008.
Notes: CO = carbon monoxide; LST = localized significance threshold; NO2 = nitrogen dioxide; PM2.5 = particulate matter with a diameter less than or equal to 2.5 microns (fine particulate matter); PM10 = particulate matter with a diameter less than or equal to 10 microns (coarse particulate matter); SCAQMD = South Coast Air Quality Management District.
See Appendix B for detailed results.
[a] Localized significance thresholds are shown for a 1.5-acre disturbed area corresponding to a distance to a sensitive receptor of 25 meters in Source-Receptor Area 4 (Carson).

As shown in Table 3.3-5, proposed construction activities would not generate emissions in excess of site-specific LSTs; therefore, localized impacts of the proposed project would be less than significant.

CO Hotspots

Traffic-congested roadways and intersections have the potential to generate localized high levels of CO. Localized areas where ambient concentrations exceed federal and/or state standards for CO are termed "CO hotspots." The transport of CO is extremely limited, as it disperses rapidly with distance from the source. Under certain extreme meteorological conditions, however, CO concentrations near a congested roadway or intersection may reach unhealthy levels, affecting sensitive receptors. Typically, high CO concentrations are associated with severely congested intersections operating at an unacceptable level of service (a level of service of E or worse is unacceptable). Projects contributing to adverse traffic impacts may result in the formation of a CO hotspot. Additional analysis of CO hotspot impacts would be conducted if a project would result in a significant impact or contribute to an adverse traffic impact at a signalized intersection that would potentially subject sensitive receptors to CO hotspots.

The project would construct a 19-unit multifamily residential community along South Main Street. According to SCAG's 2020–2045 forecast, the City of Carson is expected to add approximately 11,600 people within this period (SCAG 2020). Additionally, the General Plan Housing Element identifies a need for future housing development. Thus, the project would provide for the need of more housing to support the expected increase in residents. As provided Section 3.17, Transportation, per trip generation rates from the Institute of Transportation Engineers Trip Generation, 10th Edition (ITE 2017), a mid-rise apartment/multifamily housing development with 19 units would generate an estimated 103 daily trips, seven AM peak hour trips, and eight PM peak hour trips. Since the Project would generate less than 110 daily trips, it would be screened from a vehicle miles traveled (VMT) analysis per the Governor's Office of Planning and Research's

(OPR) Small Project screening criteria. Projects that generate or attract 110 daily trips or less may be assumed to cause a less than significant transportation impact. Accordingly, the proposed project would not generate traffic that would contribute to potential adverse traffic impacts that may result in the formation of CO hotspots. In addition, due to continued improvement in vehicular emissions at a rate faster than the rate of vehicle growth and/or congestion, the potential for CO hotspots in the SCAB is steadily decreasing. Based on these considerations, the proposed project would result in a less than significant impact to air quality with regard to potential CO hotspots.

Toxic Air Contaminants

Construction Health Risk Assessment

In addition to impacts from criteria pollutants, certain projects may include emissions of pollutants identified by the state and federal government as toxic air contaminants (TACs) or hazardous air pollutants. State law has established the framework for California's TAC identification and control project, which is generally more stringent than the federal project, and is aimed at TACs that are a problem in California. The state has formally identified more than 200 substances as TACs, including the federal hazardous air pollutants, and is adopting appropriate control measures for sources of these TACs.

Health impacts associated with TACs are generally associated with long-term exposure. The greatest potential for TAC emissions during construction would be diesel particulate emissions from heavy equipment operations and heavy-duty trucks. In an abundance of caution, a voluntary health risk assessment (HRA) was performed for the construction of the project which is a short-term event with an estimated duration of 16 months. Long-term operation, meaning the normal daily activities occurring at the multifamily residential community over time, would not result in diesel particulate emissions from heavy equipment operations, heavy-duty trucks or other sources and an operational HRA is not performed. The following paragraphs describe the construction HRA, and the detailed assessment is provided in Appendix B.

The Office of Environmental Health Hazard Assessment's (OEHHA) most recent guidance is the 2015 Risk Assessment Guidelines Manual (OEHHA 2015), which was adopted in 2015 to replace the 2003 HRA Guidance Manual. The Children's Environmental Health Protection Act of 1999 (Senate Bill [SB] 25), which requires explicit consideration of infants and children in assessing risks from air toxics, requires revisions of the methods for both non-cancer and cancer risk assessment and of the exposure assumptions in the 2003 HRA Guidance Manual. Cancer risk parameters, such as age-sensitivity factors, daily breathing rates, exposure period, fraction of time at home, and cancer potency factors, were based on the values and data recommended by OEHHA as implemented in HARP2. SCAQMD's Modeling Guidance for American Meteorological Society/EPA Regulatory Model (AERMOD) (SCAQMD 2018) and Health Risk Assessment Guidance for Analyzing Cancer Risks from Mobile Source Diesel Idling Emissions for CEQA Air Quality Analysis (SCAQMD 2003) provides guidance to perform dispersion modeling for use in HRAs within the SCAB.

Health effects from carcinogenic air toxics are usually described in terms of cancer risk. The SCAQMD recommends a carcinogenic (cancer) risk threshold of 10 in 1 million. Some TACs increase noncancer health risk due to long-term (chronic) exposures. Cancer risk is an estimate of the chance that an individual will develop cancer during their lifetime. A cancer risk of 10 in 1 million indicates that a person has an additional risk of 10 chances in 1 million (0.001%) of developing cancer during their lifetime. Hazard index is an estimate of the likelihood that an individual will experience non-cancer health effects (e.g.,

cardiovascular, neurological, respiratory). A Chronic Hazard Index estimates the likelihood of non-cancer health effects when a person is exposed to a toxic pollutant concentration for a 1-year period or longer. The Chronic Hazard Index estimates for all receptor types used the 'OEHHA Derived' calculation method, which uses high-end exposure parameters for the inhalation and next top two exposure pathways and mean exposure parameters for the remaining pathways for non-cancer risk estimates. The Chronic Hazard Index is the sum of the individual substance chronic hazard indices for all TACs affecting the same target organ system.[8] A hazard index less than 1.0 means that adverse health effects are not expected. Within this analysis, noncarcinogenic exposures of less than 1.0 are considered less than significant. The SCAQMD recommends a Chronic Hazard Index significance threshold of 1.0 (project increment) and an acute hazard index of 1.0. The exhaust from diesel engines is a complex mixture of gases, vapors, and particles, many of which are known human carcinogens. Diesel particulate matter (DPM) has established cancer risk factors and relative exposure values for long-term chronic health hazard impacts. No short-term, acute relative exposure values are established and regulated and are therefore not addressed in this assessment.

The dispersion modeling was performed using AERMOD, which is the model SCAQMD requires for atmospheric dispersion of emissions. AERMOD (version 19191) is a steady-state Gaussian plume model that incorporates air dispersion based on planetary boundary layer turbulence structure and scaling concepts, including treatment of surface and elevated sources, building downwash, and simple and complex terrain (EPA 2018b).

The project's potential cancer and noncancer health construction impacts were evaluated using exposure periods appropriate to evaluate short-term emission increases (third trimester of pregnancy to end of construction [16 months]). Emissions dispersion of DPM was modeled using AERMOD, then cancer risk and noncancer health impacts subsequently using the CARB HARP2. HARP2 (ADMRT, version 19121) implements the March 2015 OEHHA age-weighting methodology for assessing toxics risks. The chemical exposure results were then compared to SCAQMD thresholds to assess project significance. Principal parameters of this modeling are presented in Table 3.3-6.

Table 3.3-6. Construction Health Risk Assessment American Meteorological Society/U.S. Environmental Protection Agency Regulatory Model Construction Principal Parameters

Parameter	Details
Meteorological Data	The SCAQMD requires the use of AERMOD for air dispersion modeling. The latest 5-year meteorological data for the Long Beach Airport station (Station ID 23129) from SCAQMD were downloaded, then input to AERMOD. For cancer or chronic noncancer risk assessments, the average cancer risk of all years modeled was used.
Urban versus Rural Option	Urban dispersion option was selected due to the developed nature of the project area and per SCAQMD guidelines. Los Angeles City's population 9,818,605 was used in the analysis (SCAQMD 2018).
Terrain Characteristics	Digital elevation model files were imported into AERMOD so that complex terrain features were evaluated as appropriate. Per SCAQMD guidance, the National Elevation Dataset (NED) dataset with resolution of 1/3 arc-second was used (SCAQMD 2018).
Source Release Characterizations	Air dispersion modeling of DPM emissions was conducted assuming the equipment would operate in accordance with the modeling scenario estimated in CalEEMod (Appendix A). The construction equipment DPM emissions were modeled as a line of adjacent volume sources across the project site to represent project construction with

[8] The Chronic Hazard Index estimates for all receptor types used the OEHHA Derived calculation method (OEHHA 2015).

Table 3.3-6. Construction Health Risk Assessment American Meteorological Society/U.S. Environmental Protection Agency Regulatory Model Construction Principal Parameters

Parameter	Details
	a release height of 5 meters, plume height of 2.33 meters, and plume width of 11.63 meters (SCAQMD 2003b; EPA 2004).

Note: AERMOD = American Meteorological Society/Environmental Protection Agency Regulatory Model; SCAQMD = South Coast Air Quality Management District; DPM = diesel particular matter; CalEEMod = California Emissions Estimator Model; DPM = diesel particulate matter.
See Appendix B.

This HRA evaluated impacts using a uniform Cartesian grid of receptors spaced 50 meters apart, approximately 1,000 meters from the project site, and then converted to discrete receptors. Additional discrete receptors were placed at residences adjacent to the project site to the east and to the west.

Construction of project components would require use of heavy-duty construction equipment, which is subject to a CARB Airborne Toxics Control Measure for in-use diesel construction equipment to reduce diesel particulate emissions, and would involve use of diesel trucks, which are also subject to an Airborne Toxics Control Measure. Construction of project components would occur over a total of 16 months and would be periodic and short term within each phase. The results of the HRA during construction are provided in Table 3.3-7.

Table 3.3-7. Construction Activity Health Risk Assessment Results – Unmitigated

Impact Parameter	Units	Project Impact	CEQA Threshold	Level of Significance
Maximum Individual Cancer Risk (MICR)–Residential	Per Million	88.30	10.0	Potentially Significant
HIC	Not Applicable	0.08	1.0	Less than Significant

Source: Appendix B.
Notes: CEQA = California Environmental Quality Act; MICR = maximum individual cancer risk; HIC = Chronic Hazard Index.

As shown in Table 3.3-7, project construction activities would result in a Residential Maximum Individual Cancer Risk of 88.30 in 1 million, which exceeds the significance threshold of 10 in 1 million. Project construction would result in a Residential Chronic Hazard Index of 0.03, which is below the 1.0 significance threshold. The project construction TAC health risk impacts would be potentially significant and thus requires mitigation.

Mitigation Measures

To reduce the potential for criteria air pollutants, specifically exhaust PM_{10}, as a result of construction of the project, the applicant shall implement the following mitigation measure:

MM-AQ-1:

Prior to the start of construction activities, the project applicant, or its designee, shall ensure that all 75 horsepower or greater diesel-powered equipment are powered with California Air Resources

Board (CARB)-certified Tier 4 Interim engines, except where the project applicant establishes to the satisfaction of the City that Tier 4 Interim equipment is not available.

An exemption from this requirement may be granted by the City of Carson (City) if (1) the City documents equipment with Tier 4 Interim engines are not reasonably available, and (2) the required corresponding reductions in criteria air pollutant emissions can be achieved for the project from other combinations of construction equipment. Before an exemption may be granted, the construction contractor shall: (1) demonstrate that at least two construction fleet owners/operators were contacted and that those owners/operators confirmed Tier 4 Interim equipment could not be located within the City during the desired construction schedule; and (2) the proposed replacement equipment has been evaluated using California Emissions Estimator Model (CalEEMod) or other industry standard emission estimation method and documentation provided to the City to confirm that necessary project-generated emissions reductions are achieved

Level of Significance After Mitigation

As shown in Table 3.3-7, the construction HRA results from the unmitigated scenario show cancer risks exceeding the 10 in 1 million threshold and thus a potentially significant impact at the maximally exposed individual residential receptors. Implementation of MM-AQ-1 would reduce project construction-generated DPM missions to the extent feasible. The HRA results after incorporation of MM-AQ-1 are presented in Table 3.3-8.

Table 3.3-8. Construction Health Risk Assessment Results – Mitigated

Impact Parameter	Units	Project Impact	CEQA Threshold	Level of Significance
Maximum Individual Cancer Risk (MICR)– Residential	Per Million	4.46	10	Less than significant
Chronic Hazard Index – Residential	Index Value	0.004	1.0	Less than Significant

Source: SCAQMD 2019.
Notes: CEQA = California Environmental Quality Act.
See Appendix B.

Implementation of MM-AQ-1 would reduce construction-generated health risks to levels below SCAQMD thresholds. Thus, impacts would be less than significant with mitigation.

TACs are defined as substances that may cause or contribute to an increase in deaths or in serious illness, or that may pose a present or potential hazard to human health. As discussed under the LST analysis, the nearest sensitive receptors are located adjacent to the proposed project site to the east.

Health Effects of Criteria Air Pollutants

Construction of the proposed project would generate criteria air pollutant emissions; however, the project would not exceed the SCAQMD mass-emission thresholds.

Health effects associated with O_3 include respiratory symptoms, worsening of lung disease leading to premature death, and damage to lung tissue (CARB 2019a). VOCs and NO_x are precursors to O_3, for which the SCAB is designated as nonattainment with respect to the NAAQS and CAAQS. Thus, existing O_3 levels in the SCAB are at unhealthy levels during certain periods. The contribution of VOCs and NO_x to regional

ambient O_3 concentrations is the result of complex photochemistry. The increases in O_3 concentrations in the SCAB due to O_3 precursor emissions tend to be found downwind from the source location to allow time for the photochemical reactions to occur. However, the potential for exacerbating excessive O_3 concentrations would also depend on the time of year that the VOC emissions would occur because exceedances of the O_3 NAAQS and CAAQS tend to occur between May and October when solar radiation is highest. The holistic effect of a single project's emissions of O_3 precursors is speculative due to the lack of quantitative methods to assess this impact. Nonetheless, because the proposed project would not involve construction or operational activities that would result in O_3 precursor emissions (VOC or NO_x) in excess of the SCAQMD thresholds, the project is not anticipated to substantially contribute to regional O_3 concentrations and the associated health impacts.

Exposure to NO_2 and NO_x can irritate the lungs, cause bronchitis and pneumonia, lower resistance to respiratory infections, and enhance allergic responses (CARB 2019b). Project construction and operation would not exceed the SCAQMD NO_x threshold, and existing ambient NO_2 concentrations are below the NAAQS and CAAQS. Thus, implementation of the proposed project is not expected to exceed the NO_2 standards or contribute to associated health effects.

Health effects associated with CO include chest pain in patients with heart disease, headache, light-headedness, and reduced mental alertness (CARB 2019c). CO tends to be a localized impact associated with congested intersections. CO hotspots were discussed previously as a less than significant impact. Thus, the proposed project's CO emissions would not contribute to the health effects associated with this pollutant.

Particulate matter exposure has been linked to a variety of problems, including premature death in people with heart or lung disease, nonfatal heart attacks, irregular heartbeat, aggravated asthma, decreased lung function, and increased respiratory symptoms such as irritation of the airways, coughing, or difficulty breathing (EPA 2016). The SCAB is designated as nonattainment for PM_{10} under the CAAQS and nonattainment for $PM_{2.5}$ under the NAAQS and CAAQS. Implementation of the proposed project would not generate emissions of PM_{10} or $PM_{2.5}$ that would exceed the SCAQMD's thresholds. Accordingly, the proposed project's PM_{10} and $PM_{2.5}$ emissions are not expected to cause an increase in related regional health effects for these pollutants.

In summary, the proposed project would not result in a potentially significant contribution to regional concentrations of nonattainment pollutants and would not result in a significant contribution to the adverse health impacts associated with those pollutants. Therefore, impacts would be less than significant.

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

Less Than Significant Impact. The occurrence and severity of potential odor impacts depends on numerous factors. The nature, frequency, and intensity of the source; the wind speeds and direction; and the sensitivity of receiving location each contribute to the intensity of the impact. Although offensive odors seldom cause physical harm, they can be annoying and cause distress among the public and generate citizen complaints.

Odors would be potentially generated from vehicles and equipment exhaust emissions during construction of the proposed project. Potential odors produced during construction would be attributable to

concentrations of unburned hydrocarbons from tailpipes of construction equipment, architectural coatings, and asphalt pavement application. Such odors would disperse rapidly from the proposed project site and generally occur at magnitudes that would not affect substantial numbers of people. Therefore, impacts associated with odors during construction would be less than significant.

Land uses and industrial operations associated with odor complaints include agricultural uses, wastewater treatment plants, food-processing plants, chemical plants, composting, refineries, landfills, dairies, and fiberglass molding (SCAQMD 1993). The proposed project entails residential development, which has not been identified by SCAQMD as a land use typically associated with odor complaints. Therefore, the proposed project operations would result in an odor impact that is less than significant.

3.4 Biological Resources

	Potentially Significant Impact	Less Than Significant Impact With Mitigation Incorporated	Less Than Significant Impact	No Impact
IV. BIOLOGICAL RESOURCES – Would the project:				
a) Have a substantial adverse effect, either directly or through habitat modifications, on any species identified as a candidate, sensitive, or special status species in local or regional plans, policies, or regulations, or by the California Department of Fish and Game or U.S. Fish and Wildlife Service?	☐	☐	☒	☐
b) Have a substantial adverse effect on any riparian habitat or other sensitive natural community identified in local or regional plans, policies, regulations, or by the California Department of Fish and Game or U.S. Fish and Wildlife Service?	☐	☐	☐	☒
c) Have a substantial adverse effect on state or federally protected wetlands (including, but not limited to, marsh, vernal pool, coastal, etc.) through direct removal, filling, hydrological interruption, or other means?	☐	☐	☐	☒
d) Interfere substantially with the movement of any native resident or migratory fish or wildlife species or with established native resident or migratory wildlife corridors, or impede the use of native wildlife nursery sites?	☐	☐	☐	☒
e) Conflict with any local policies or ordinances protecting biological resources, such as a tree preservation policy or ordinance?	☐	☐	☐	☒

	Potentially Significant Impact	Less Than Significant Impact With Mitigation Incorporated	Less Than Significant Impact	No Impact
f) Conflict with the provisions of an adopted Habitat Conservation Plan, Natural Community Conservation Plan, or other approved local, regional, or state habitat conservation plan?	☐	☐	☐	☒

a) Would the project have a substantial adverse effect, either directly or through habitat modifications, on any species identified as a candidate, sensitive, or special status species in local or regional plans, policies, or regulations, or by the California Department of Fish and Game or U.S. Fish and Wildlife Service?

Less Than Significant Impact. Queries of the California Department of Fish and Wildlife's California Natural Diversity Database (CDFW 2021) for the U.S. Geologic Survey's Torrance 7.5-minute topographic quadrangle and the U.S. Fish and Wildlife Service's Information for Planning and Consultation (USFWS 2021a), which resulted in 35 special-status plants and wildlife having recorded occurrences in the project region. The project site is not expected to support any of the species since the natural vegetation and soils have been removed. The project site was previously developed, with the structures removed sometime between 1986 and 1987 (Nationwide Environmental Title Research 2021). Additionally, the project site is located in a developed part of the City and is surrounded by a highly urbanized mix of land uses, including residential and commercial. The nearest open spaces area as identified by the City's General Plan is Carson Park, which is located approximately 0.1 miles to the south of the project site (City of Carson 2004). Due to the intervening development between the project site and this natural area, there is no direct connection between the project site and this open space area. Therefore, impacts to special-status species would be less than significant.

Based on the disturbed nature of the project site and the developed surrounding area, wildlife species that could occur on site include common species typically found in urbanized settings, such as house sparrow (*Passer domesticus*), mourning dove (*Zenaida macroura*), and western fence lizard (*Sceloporus occidentalis*). One ornamental street tree currently located on the project site would require removal prior to construction of the project. Because of the highly disturbed nature of the project site, and the vehicular and residential activity around the site, it is unlikely that the existing tree would provide desirable nesting opportunities for birds. The project site lacks other vegetation or structures that are typically used by birds for nesting and it is expected that birds that may nest in the surrounding area are adapted to the urban environment and would not be affected by project construction. Therefore, impacts to nesting birds would be less than significant.

b) Would the project have a substantial adverse effect on any riparian habitat or other sensitive natural community identified in local or regional plans, policies, regulations, or by the California Department of Fish and Game or U.S. Fish and Wildlife Service?

No Impact. The project site is located entirely on developed and disturbed land. No natural vegetation communities are present, and no riparian features have been previously identified within the project site (USFWS 2021b). Therefore, no impacts associated with riparian or sensitive vegetation communities would occur.

c) Would the project have a substantial adverse effect on state or federally protected wetlands (including, but not limited to, marsh, vernal pool, coastal, etc.) through direct removal, filling, hydrological interruption, or other means?

No Impact. No federally defined waters of the United States or state have been previously identified within the project site (USFWS 2021b). This includes federally defined wetlands and other waters (e.g., drainages) and state-defined waters (e.g., streams and riparian extent). The project would be subject to typical restrictions and requirements that address erosion and runoff (e.g., best management practices [BMPs]), including those of the Clean Water Act and National Pollutant Discharge Elimination System permit. In addition, all construction activities would be limited to developed and disturbed land. Therefore, no impacts to jurisdictional waters or wetlands would occur.

d) Would the project interfere substantially with the movement of any native resident or migratory fish or wildlife species or with established native resident or migratory wildlife corridors, or impede the use of native wildlife nursery sites?

No Impact. Wildlife corridors are linear, connected areas of natural open space that provide avenues for migration of animals. Habitat linkages are small patches that join larger blocks of habitat and reduce the adverse effects of habitat fragmentation; they may be continuous habitat or discrete habitat islands that function as steppingstones for wildlife dispersal. Native wildlife nurseries include fish spawning areas, bird rookeries, and maternal and wintering bat roosts.

The City is not recognized as an existing or proposed Significant Ecological Area that links migratory populations, as designated by the County of Los Angeles (County of Los Angeles 2021). Additionally, the project site is not located within any designated wildlife corridors or habitat linkages identified in the Essential Connectivity Areas (Spencer et al. 2010) or South Coast Missing Linkages analysis (South Coast Wildlands 2008). The project site lacks riparian areas that would support fish and it is located within a highly urbanized area and would not interfere with the movement of any native residents, migratory fish, or wildlife species. Urban-adapted wildlife may move through the project site during local movement, but wildlife movement on a regional level is not expected. Therefore, no impacts associated with wildlife movement or wildlife corridors would occur.

The project site lacks riparian areas that would support fish, habitat that would support rookeries (i.e., multiple trees), and structures that would be used by bats to roosts (e.g., caves, cliffs, multiple trees, bridges, and unused buildings). Therefore, no impacts associated with native wildlife nursery sites would occur.

e) Would the project conflict with any local policies or ordinances protecting biological resources, such as a tree preservation policy or ordinance?

No Impact. The City does not have any local policies or ordinances protecting trees located on private property. As such, implementation of the project would not conflict with local policies. Therefore, no impacts associated with local policies or ordinances protecting biological resources would occur.

f) Would the project conflict with the provisions of an adopted Habitat Conservation Plan, Natural Community Conservation Plan, or other approved local, regional, or state habitat conservation plan?

No Impact. The project site is not located within any habitat conservation plan; natural community conservation plan; or other approved local, regional, or state habitat conservations plan area (CDFW 2019). Therefore, no impacts associated with an adopted conservation plan would occur.

3.5 Cultural Resources

	Potentially Significant Impact	Less Than Significant Impact With Mitigation Incorporated	Less Than Significant Impact	No Impact
V. CULTURAL RESOURCES – Would the project:				
a) Cause a substantial adverse change in the significance of a historical resource pursuant to §15064.5?	☐	☐	☒	☐
b) Cause a substantial adverse change in the significance of an archaeological resource pursuant to §15064.5?	☐	☒	☐	☐
c) Disturb any human remains, including those interred outside of dedicated cemeteries?	☐	☐	☒	☐

a) Would the project cause a substantial adverse change in the significance of a historical resource pursuant to §15064.5?

Less than Significant Impact. A California Historical Resources Information System (CHRIS) records search provided by the South Central Coastal Information Center (SCCIC) for the project site and a 0.5-mile radius was completed on March 23, 2021 (Appendix C). The CHRIS record search results included the SCCIC's digitized collections of mapped prehistoric and historic archaeological resources and historic built environment resources; Department of Parks and Recreation site records; technical reports; archival resources; and ethnographic references. Dudek reviewed the SCCIC records to determine whether the implementation of the project would have the potential to impact known cultural resources (including archaeological resources and historical resources). No cultural resources were identified within the proposed project site or immediate vicinity as a result of the CHRIS record search or intensive pedestrian survey. The project site is currently vacant, disturbed land with no buildings or structures. In consideration of these factors, no resources were identified within the proposed project site that are considered to be historical resources for the purposes of CEQA. As such, the project would not cause a substantial adverse change in the significance of historical resources pursuant to Section 15064.5 and impacts would be less than significant.

b) Would the project cause a substantial adverse change in the significance of an archaeological resource pursuant to §15064.5?

Less Than Significant Impact with Mitigation Incorporated. No prehistoric or historic-era archaeological resources were identified within the proposed project site as a result of the CHRIS records search (completed March 23, 2021). A review of the geotechnical report prepared for the project site indicates that fill soils were encountered at all five tested locations between 3 to 7 feet below the ground surface (Appendix D). The report further notes that based on the site conditions and the subsurface testing findings, it is recommended that the onsite surface soils within the proposed project impact areas be removed to underlying stiff/firm competent undisturbed natural (native) soil or to a depth of 3 feet below the base of the proposed foundations, whichever is deeper. The site clearing work for the project as described in the geotechnical report would include removal of asphalt, concrete slab, and vegetation. This site clearing work is to extend beyond the proposed excavation and fill areas. The project involves the construction of two three-story apartment buildings, a surface parking lot, and common space for each of the buildings, including connections to existing domestic water, sanitary sewer, stormwater, and dry utility connections. As such, it is assumed that the ground disturbing work associated with the proposed project components will be no greater than 5 feet below the ground surface. In consideration of all these factors, the potential to encounter unknown intact subsurface archaeological resources beyond the depths of identified fill soils is considered low. However, in the event that unanticipated archaeological resources are encountered during project implementation, impacts to these resources would be potentially significant. With the implementation of MM-CUL-1, that requires all project construction personnel take the Worker Environmental Awareness Program (WEAP) training for the proper identification and treatment of inadvertent discoveries and MM-CUL-2, that requires the retention of an on-call qualified archaeologist to address inadvertent discoveries and requires all construction work occurring within 50 feet of the find be immediately stoped until the qualified archaeologist, meeting the Secretary of Interior's Professional Qualification Standards for Archaeology, can evaluate the significance of the find, potentially significant impacts to unknown archaeological resources would be reduced to less than significant. Impacts would therefore be less than significant with mitigation incorporated.

MM-CUL-1 Prior to commencement of construction activities for all phases of project implementation, the project applicant shall retain a qualified archaeologist, meeting the Secretary of the Interior's Professional Qualification Standards for Archaeology, to prepare a Worker Environmental Awareness Program (WEAP). The WEAP shall be submitted to the City for review and approval. All construction personnel and monitors who are not trained archaeologists shall be briefed regarding inadvertent discoveries prior to the start of construction activities. A basic presentation and handout or pamphlet shall be prepared in order to ensure proper identification and treatment of inadvertent discoveries. The purpose of the WEAP training is to provide specific details on the kinds of archaeological materials that may be identified during construction of the project and explain the importance of and legal basis for the protection of significant archaeological resources. Each worker shall also learn the proper procedures to follow in the event that cultural resources or human remains are uncovered during ground-disturbing activities. These procedures include work curtailment or redirection, and the immediate contact of the site supervisor and archaeological monitor.

MM-CUL-2 An on-call qualified archaeologist shall be retained to respond to and address any inadvertent discoveries identified during initial excavation in native soil. Initial excavation is defined as initial construction-related earth moving of sediments from their place of deposition. As it pertains to

archaeological monitoring, this definition excludes movement of sediments after they have been initially disturbed or displaced by project-related construction. A qualified archaeological principal investigator, meeting the Secretary of the Interior's Professional Qualification Standards, should oversee and establish monitoring efforts as needed (increase, decrease, or discontinue monitoring frequency) based on the observed potential for construction activities to encounter cultural deposits or material. The archaeological monitor will be responsible for maintaining daily monitoring logs.

In the event that potential prehistoric or historical archaeological resources (sites, features, or artifacts) are exposed during construction activities for the project, all construction work occurring within 50 feet of the find shall immediately stop and a qualified archaeologist must be notified immediately to assess the significance of the find and determine whether or not additional study is warranted. Depending upon the significance of the find, the archaeologist may simply record the find and allow work to continue. If the discovery proves significant under CEQA, additional work such as preparation of an archaeological treatment plan, testing, data recovery, or monitoring may be warranted.

If monitoring is conducted, an archaeological monitoring report shall be prepared within 60 days following completion of ground disturbance and submitted to the City for review. This report should document compliance with approved mitigation, document the monitoring efforts, and include an appendix with daily monitoring logs. The final report shall be submitted to the City and the SCCIC.

c) Would the project disturb any human remains, including those interred outside of dedicated cemeteries?

Less than Significant Impact. No prehistoric or historic burials were identified within the proposed project site as a result of the CHRIS records search. In the event that human remains are inadvertently encountered during construction activities, such resources would be treated in accordance with state and local regulations that provide requirements with regard to the accidental discovery of human remains, including California Health and Safety Code Section 7050.5, PRC Section 5097.98, and the California Code of Regulations Section 15064.5(e). In accordance with these regulations, if human remains are found, the County Coroner must be immediately notified of the discovery. No further excavation or disturbance of the project site or any nearby area reasonably suspected to overlie adjacent remains can occur until the County Coroner has determined, within two working days of notification of the discovery, if the remains are potentially human in origin. If the County Coroner determines that the remains are, or are believed to be, Native American, he or she is required to notify the Native American Heritage Commission (NAHC) within 24 hours. The NAHC must immediately notify those persons it believes to be the most likely descendant from the deceased Native American. The most likely descendant must then complete their inspection within 48 hours of being granted access to the site. The most likely descendant would then determine, in consultation with the property owner, the disposition of the human remains. Compliance with these regulations would ensure that impacts to human remains resulting from the proposed project would be less than significant.

3.6 Energy

	Potentially Significant Impact	Less Than Significant Impact With Mitigation Incorporated	Less Than Significant Impact	No Impact
VI. Energy – Would the project:				
a) Result in potentially significant environmental impact due to wasteful, inefficient, or unnecessary consumption of energy resources, during project construction or operation?	☐	☐	☒	☐
b) Conflict with or obstruct a state or local plan for renewable energy or energy efficiency?	☐	☐	☒	☐

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

Less Than Significant Impact. The electricity and natural gas used for construction of the proposed project would be temporary, would be substantially less than that required for project operation, and would have a negligible contribution to the project's overall energy consumption. Although the project would see an increase in petroleum use during construction and operation, vehicles would use less petroleum due to advances in fuel economy and potential reduction in VMT over time. The estimated consumption for electricity, natural gas, and petroleum is discussed below.

Construction Energy Use

Electricity

Temporary electric power for as-necessary lighting and electronic equipment such as computers inside temporary construction trailers would be provided by Southern California Edison (SCE). The electricity used for such activities would be temporary and would be substantially less than that required for proposed project operation and would have a negligible contribution to the proposed project's overall energy consumption.

Natural Gas

Natural gas is not anticipated to be required during construction of the proposed project. Fuels used for construction would primarily consist of diesel and gasoline, which are discussed below under the "petroleum" subsection. Any minor amounts of natural gas that may be consumed as a result of proposed project construction would be substantially less than that required for proposed project operation and would have a negligible contribution to the proposed project's overall energy consumption.

Petroleum

Heavy-duty construction equipment associated with construction activities would rely on diesel fuel, as would haul trucks involved in removing the materials from excavation. Construction workers would travel to and from the project site throughout the duration of construction. It is assumed in this analysis that construction workers would travel to and from the site in gasoline-powered passenger vehicles.

Heavy-duty construction equipment of various types would be used during each phase of proposed project construction. Appendix A lists the assumed equipment usage for each phase of construction.

Fuel consumption from construction equipment was estimated by converting the total carbon dioxide (CO_2) emissions from each construction phase to gallons using the conversion factors for CO_2 to gallons of gasoline or diesel. Construction is estimated to occur in 2021 and 2022 based on the construction phasing schedule. The conversion factor for gasoline is 8.78 kilograms per metric ton CO_2 per gallon, and the conversion factor for diesel is 10.21 kilograms per metric ton CO_2 per gallon (The Climate Registry 2020). The estimated diesel fuel usage from construction equipment is shown in Table 3.6-1.

Table 3.6-1. Construction Equipment Diesel Demand

Phase	Pieces of Equipment	Equipment CO_2 (MT)	kg/CO_2/Gallon	Gallons
Site Preparation	2	0.43	10.21	42.21
Grading	4	7.84	10.21	768.21
Building Construction	5	162.53	10.21	15,918.57
Paving	7	2.37	10.21	231.76
Architectural Coating	1	0.64	10.21	62.62
			Total	7,145.76

Sources: Pieces of equipment and equipment CO_2 (Appendix A); kg/CO_2/Gallon (The Climate Registry 2020).
Notes: CO_2 = carbon dioxide; MT = metric ton; kg = kilogram.

Fuel consumption from worker and vendor trips are estimated by converting the total CO_2 emissions from each construction phase to gallons using the conversion factors for CO_2 to gallons of gasoline or diesel. Worker vehicles are assumed to be gasoline and vendor/hauling vehicles are assumed to be diesel.

Calculations for total worker, vendor, and haul truck fuel consumption are provided in Tables 3.6-2, 3.6-3, and 3.6-4.

Table 3.6-2. Construction Worker Gasoline Demand

Phase	Trips	Vehicle MT CO_2	kg/CO_2/Gallon	Gallons
Site Preparation	6	0.03	8.78	3.21
Grading	150	0.70	8.78	80.21
Building Construction	12,880	58.78	8.78	6,694.84
Paving	90	0.40	8.78	45.08
Architectural Coating	30	0.13	8.78	15.02
			Total	6,903.67

Sources: Trips and vehicle CO2 (Appendix A); kg/CO2/Gallon (The Climate Registry 2020).
Notes: MT = metric ton; CO2 = carbon dioxide; kg = kilogram.

Table 3.6-3. Construction Vendor Diesel Demand

Phase	Trips	Vehicle MT CO_2	kg/CO_2/Gallon	Gallons
Site Preparation	0	0.00	10.21	0.00
Grading	0	0.00	10.21	0.00
Building Construction	1,932	19.30	10.21	1,890.52
Paving	0	0.00	10.21	0.00
Architectural Coating	0	0.00	10.21	0.00
			Total	1,890.52

Sources: Trips and vehicle CO2 (Appendix A); kg/CO2/Gallon (The Climate Registry 2020).
Notes: MT = metric ton; CO2 = carbon dioxide; kg = kilogram.

Table 3.6-4. Construction Haul Truck Diesel Demand

Phase	Trips	Vehicle MT CO_2	kg/CO_2/Gallon	Gallons
Site Preparation	0	0.00	10.21	0.00
Grading	1,200	39.92	10.21	3,909.62
Building Construction	0	0.00	10.21	0.00
Paving	0	0.00	10.21	0.00
Architectural Coating	0	0.00	10.21	0.00
			Total	3,909.62

Sources: Trips and vehicle CO_2 (Appendix A); kg/CO_2/Gallon (The Climate Registry 2020).
Notes: MT = metric ton; CO_2 = carbon dioxide; kg = kilogram.

In summary, construction of the proposed project is anticipated to consume 6,904 gallons of gasoline and 22,946 gallons of diesel, which would last approximately 16 months. In comparison, based on these assumptions, approximately 38.3 billion gallons of petroleum would be consumed in California over the course of the proposed project's construction phase based on the California daily petroleum consumption estimate of approximately 78.6 million gallons per day (EIA 2019). The project will be subject to CARB's In-Use Off-Road Diesel Vehicle Regulation that applies to certain off-road diesel engines, vehicles, or equipment greater than 25 horsepower. The regulation: (1) imposes limits on idling, requires a written idling policy, and requires a disclosure when selling vehicles; (2) requires all vehicles to be reported to CARB (using the Diesel Off-Road Online Reporting System) and labeled; (3) restricts the adding of older vehicles into fleets starting on January 1, 2014; and (4) requires fleets to reduce their emissions by retiring, replacing, or repowering older engines, or installing Verified Diesel Emission Control Strategies (i.e., exhaust retrofits). The fleet must either show that its fleet average index was less than or equal to the calculated fleet average target rate, or that the fleet has met the Best Achievable Control Technology requirements. The project is also located in an urban area and worker, vendor, and haul truck trip lengths would be shorter compared to a suburban project location, resulting in less energy use. Therefore, impacts to energy resources during construction would be less than significant. Therefore, impacts associated during construction would be less than significant. No mitigation is required.

Operational Energy Use

Electricity

The operation of the proposed project buildout would require electricity for multiple purposes, including cooling, lighting, appliances, and various equipment. Additionally, the supply, conveyance, treatment, and distribution of water would indirectly result in electricity usage. Electricity consumption associated with proposed project operation is based on the CalEEMod outputs presented in Appendix A.

CalEEMod default values for energy consumption for each land use were applied for the project analysis. The energy use from residential land uses is calculated in CalEEMod based on the California Residential Appliance Saturation database. Energy use in buildings (both natural gas and electricity) is divided by the program into end use categories subject to Title 24 requirements (end uses associated with the building envelope, such as the HVAC system, water heating system, and integrated lighting) and those not subject to Title 24 requirements (such as appliances, electronics, and miscellaneous "plug-in" uses).

Title 24 of the California Code of Regulations serves to enhance and regulate California's building standards. The most recent amendments to Title 24, Part 6, referred to as the 2019 standards, became effective on January 1, 2020. CalEEMod 2016.4.0 relies upon the Title 24 2019 standards. According to these estimations, the proposed project would consume approximately 72,781 kilowatt hours per year during operation (Appendix A). As such, the proposed project would have a negligible impact on demand for the City and SCE. In addition, some of this energy consumption would be offset through onsite solar photovoltaic energy requirements of the 2019 Title 24, Part 6 building standards as defined in Title 24, Part 6 Section 150.1(c) Item 14.

Natural Gas

The operation would require natural gas for various purposes, including water heating and natural gas appliances. Natural gas consumption associated with operation is based on the CalEEMod outputs Appendix A.

CalEEMod default values for energy consumption were applied for the project analysis. The energy use from residential land uses is calculated in CalEEMod based on the California Residential Appliance Saturation database. Energy use in buildings (both natural gas and electricity) is divided by the program into end use categories subject to Title 24 requirements (end uses associated with the building envelope, such as the HVAC system, water heating system, and integrated lighting) and those not subject to Title 24 requirements (such as appliances, electronics, and miscellaneous "plug-in" uses).

Title 24 of the California Code of Regulations serves to enhance and regulate California's building standards. The most recent amendments to Title 24, Part 6, referred to as the 2019 standards, became effective on January 1, 2020. According to these estimations, the proposed project would consume approximately 171,205 kilo-British Thermal Units (kBtu) per year.

Petroleum

During operations, the majority of fuel consumption resulting from the proposed project would involve the use of motor vehicles traveling to and from the project site.

Petroleum fuel consumption associated with motor vehicles traveling to and from the project site is a function of the VMT as a result of project operation. As shown in Appendix A, the annual VMT resulting from the proposed project is expected to be 334,832 VMT. Similar to the construction worker and vendor trips, fuel consumption from worker and truck trips are estimated by converting the total CO_2 emissions from operation of the proposed project to gallons using the conversion factors for CO_2 to gallons of gasoline. Calculations for annual mobile source fuel consumption are provided in Table 3.6-5.

Table 3.6-5. Annual Mobile Source Petroleum Demand

Fuel	Vehicle MT CO_2	kg/CO_2/Gallon	Gallons
Gasoline	114.45	8.78	13,035.83
		Total	**13,035.83**

Sources: Trips and vehicle CO_2 (Appendix A); kg/CO_2/Gallon (The Climate Registry 2020).
Notes: MT = metric ton; CO_2 = carbon dioxide; kg = kilogram

As shown in Table 3.6-5, total petroleum consumption for the project annually is estimated to be 13,036 gallons of gasoline.

Summary

Over the lifetime of the proposed project, the fuel efficiency of on-road vehicles of residents commuting to the site is expected to increase. As such, the amount of petroleum consumed as a result of vehicular trips to and from the project site during operation would decrease over time. There are numerous regulations in place that require and encourage increased fuel efficiency. Statewide emission reduction measures proposed in the CARB-adopted amendments to the Pavley regulations include measures aimed at reducing GHG emissions associated with transportation. These amendments are part of California's commitment to a nationwide program to reduce new passenger vehicle GHGs from 2012 through 2016. Pavley regulations reduced GHG emissions from California passenger vehicles by about 22% in 2012. It is expected that Pavley regulations will reduce GHG emissions from California passenger CARB has adopted an approach to passenger vehicles by combining the control of smog-causing pollutants and GHG emissions into a single, coordinated package of standards. Additionally, in response to SB 375, CARB adopted the goal of reducing per-capita GHG emissions from 2005 levels by 8% by 2020, and 18% by 2035 for light-duty passenger vehicles in the planning area for SCAG. As such, operation of the proposed Project is expected to use decreasing amounts of petroleum over time due to advances in fuel economy.

The proposed project would create additional electricity and natural gas demand by adding residential units. New facilities associated with the proposed project would be subject to the State Building Energy Efficiency Standards, embodied in Title 24 of the California Code of Regulations. The efficiency standards apply to new construction of residential buildings and regulate energy consumed for heating, cooling, ventilation, water heating, and lighting.

In summary, although natural gas and electricity usage would increase due to the implementation of the proposed project, the proposed project's energy efficiency would meet State Building Energy Efficiency Standards, embodied in Title 24 of the California Code of Regulations. Although the project would see an increase in petroleum use during construction and operation, vehicles would use less petroleum due to advances in fuel economy over time. Therefore, impacts to energy resources during construction and operation would be less than significant.

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

Less Than Significant Impact. The proposed project would be subject to and would comply with, at a minimum, the California Building Energy Efficiency Standards (24 CCR, Part 6). Part 6 of Title 24 establishes energy efficiency standards for residential buildings constructed in California to reduce energy demand and consumption. As such, the project would comply with the California code requirements for energy efficiency. In addition, the project would comply with all applicable energy conservation requirements stipulated by the City of Carson Climate Action Plan, which "emphasizes energy efficiency retrofits for existing buildings, energy performance requirements for new construction, water efficient landscaping, financing programs that will allow home and business owners to obtain low-interest loans for implementing energy efficiency in their buildings."

Part 11 of Title 24 sets forth voluntary and mandatory energy measures that are applicable to the project under the California Green Building Standards, also known as CALGreen. CALGreen institutes mandatory minimum environmental performance standards for all ground-up, new construction of commercial, low-rise residential, high-rise residential, state-owned buildings, schools, and hospitals, as well as certain residential and nonresidential additions and alterations. On this basis, the project would not conflict with or obstruct a state or local plan for renewable energy or energy efficiency.

3.7 Geology and Soils

	Potentially Significant Impact	Less Than Significant Impact With Mitigation Incorporated	Less Than Significant Impact	No Impact
VII. GEOLOGY AND SOILS – Would the project:				
a) Directly or indirectly cause potential substantial adverse effects, including the risk of loss, injury, or death involving:				
i) Rupture of a known earthquake fault, as delineated on the most recent Alquist-Priolo Earthquake Fault Zoning Map issued by the State Geologist for the area or based on other substantial evidence of a known fault? Refer to Division of Mines and Geology Special Publication 42.	☐	☐	☐	☒
ii) Strong seismic ground shaking?	☐	☐	☒	☐
iii) Seismic-related ground failure, including liquefaction?	☐	☐	☒	☐
iv) Landslides?	☐	☐	☐	☒
b) Result in substantial soil erosion or the loss of topsoil?	☐	☐	☒	☐
c) Be located on a geologic unit or soil that is unstable, or that would become unstable as a result of the project, and potentially result in on- or off-site landslide, lateral spreading, subsidence, liquefaction or collapse?	☐	☐	☒	☐

	Potentially Significant Impact	Less Than Significant Impact With Mitigation Incorporated	Less Than Significant Impact	No Impact
d) Be located on expansive soil, as defined in Table 18-1-B of the Uniform Building Code (1994), creating substantial direct or indirect risks to life or property?	☐	☐	☒	☐
e) Have soils incapable of adequately supporting the use of septic tanks or alternative waste water disposal systems where sewers are not available for the disposal of waste water?	☐	☐	☐	☒
f) Directly or indirectly destroy a unique paleontological resource or site or unique geologic feature?	☐	☒	☐	☐

a) Would the project directly or indirectly cause potential substantial adverse effects, including the risk of loss, injury, or death involving:

i) Rupture of a known earthquake fault, as delineated on the most recent Alquist-Priolo Earthquake Fault Zoning Map issued by the State Geologist for the area or based on other substantial evidence of a known fault? Refer to Division of Mines and Geology Special Publication 42.

No Impact. The California Division of Mines and Geology has not identified the project site an Alquist-Priolo Earthquake Fault Zone (DOC 1999). While the City is located in an area considered to be seismically active, similar to most of Southern California, the nearest known active regional fault—the Newport-Inglewood Fault zone—is located approximately 3.2 miles from the project site. As such, while the potential for strong seismic ground shaking is likely over the life of the project, the risk of surface rupture during an earthquake is remote (DOC 2019).

According to the Preliminary Soil Investigation prepared for the project site, no faults, active or potentially active, are known to exist within the site. The probability of surface rupture at the site is considered very low (Appendix D). Therefore, no impacts with surface fault rupture would occur.

ii) Strong seismic ground shaking?

Less Than Significant Impact. Like most of Southern California, the project site is located within a seismically active area. Numerous faults considered active or potentially active have been mapped in Southern California, including near the City. Thus, the project's future residents and their visitors could be exposed to strong seismic ground shaking in the event of an earthquake.

According to the City's General Plan, the Newport-Inglewood, Whittier, Santa Monica, and Palos Verdes Faults are the active faults most likely to cause high ground accelerations in the City. The San Andreas Fault has a high probability of generating a maximum credible earthquake within California, with a magnitude of 7.5 to 8.0 (City of Carson 2004). Detectible ground shaking caused by one of these faults could cause strong seismic shaking at the project site. The closest fault zone to the project site is the Newport-Inglewood

Fault Zone, located approximately 3.2 miles to the northeast of the site (Appendix D). The Preliminary Soil Investigation concluded that the intensity of future ground shaking at the site is not expected to be greater than any other sites in the immediate vicinity. As such, the City has identified goals and policies to ensure compliance with the International Building Code. Standards set forth in the International Building Code ensure seismic safety pursuant to the City's Department of Building Safety.

Appropriate measures to minimize the effects of earthquakes and other geotechnical hazards are included in the California Building Code, with specific provisions pertaining to seismic load and design. The California Building Code has been adopted by the City as the Building Code of the City of Carson, pursuant to Section 8100 of the City's Municipal Code (City of Carson 2020a). Design and construction of the project in accordance with the California Building Code would minimize the adverse effects of strong ground shaking to the greatest degree feasible. Therefore, based on compliance with applicable local and state requirements related to seismic hazards, impacts associated with strong seismic ground shaking would be less than significant.

iii) Seismic-related ground failure, including liquefaction?

Less Than Significant Impact. Soil liquefaction is a seismically induced form of ground failure that has been a major cause of earthquake damage in Southern California. Liquefaction is a process by which water-saturated granular soils transform from a solid to a liquid state because of a sudden shock or strain, such as an earthquake. The Newport-Inglewood Fault zone is a potential source of ground stress, and liquefaction could occur in the City if the groundwater table is high enough during an earthquake. Due to the existing alluvial and former slough areas within the City, there are areas with the potential for occurrence of liquefaction (City of Carson 2004). According to Exhibit SAF-4 in the City's General Plan Safety Element and the California Department of Conservation's Earthquake Hazard map, the project site is located outside an area susceptible to liquefaction (City of Carson 2004; DOC 2019).

The underlying soil deposits consist of loose to medium dense sands below groundwater level, which are generally considered to be susceptible to liquefaction under strong shaking conditions (Appendix D). However, the site is not located in the area as delineated by the State Geologist to have potential of soil liquefaction during strong earthquakes, so a liquefaction evaluation of the project site was not performed during the Preliminary Soil Investigation. No groundwater was encountered to a maximum depth of 20 feet, therefore, the potential of soil liquefaction at the site is considered low (Appendix D). Impacts associated with liquefaction would be less than significant.

iv) Landslides?

No Impact. The project site and surrounding area are relatively flat and lack any hillsides or topographic features typically susceptible to landslides. According to the City's General Plan EIR, the City does not contain any known areas where landslide movement has the potential to occur (City of Carson 2002). As such, the project would not expose people or structures to risk of landslides. Therefore, no impacts associated with landslides would occur.

b) Would the project result in substantial soil erosion or the loss of topsoil?

Less Than Significant Impact. The project would involve earthwork and other construction activities that would disturb surface soils and temporarily leave exposed soil on the ground's surface. Common causes of

soil erosion from construction sites include stormwater, wind, and soil being tracked off site by vehicles. To help curb erosion, project construction activities would comply with all appliable federal, state, and local regulations for soil erosion. The project would be required to comply with standard regulations, including SCAQMD Rules 402 and 403, which would reduce construction related wind erosion impacts. Rule 402 requires that dust suppression techniques be implemented to prevent dust and soil erosion from creating a nuisance off site (SCAQMD 1976). Rule 403 requires that fugitive dust be controlled with best available control measures so that it does not remain visible in the atmosphere beyond the property line of the emissions source (SCAQMD 2005). In addition, the project would be required to comply with applicable provisions of Chapter 8, Stormwater and Urban Runoff Pollution Control, of the City's Municipal Code. The provisions of Chapter 8 require the deployment of various BMPs intended to minimize soil erosion during construction (City of Carson 2020a).

Upon completion of construction, the 19-unit multifamily residential complex would improve the project site, including associated on-site improvements, such as parking and landscape areas. Collectively, these on-site areas would reduce the potential for soil erosion and topsoil loss. The structural and paved improvements would generally be impervious areas lacking any exposed soils. The landscape areas, although pervious, would contain vegetation that would help stabilize and retain surface soils on the project site. Therefore, impacts would be less than significant.

c) Would the project be located on a geologic unit or soil that is unstable, or that would become unstable as a result of the project, and potentially result in on- or off-site landslide, lateral spreading, subsidence, liquefaction or collapse?

Less Than Significant Impact. As previously discussed in Section 3.7(a)(iii), there are areas within the City with the potential for occurrence of liquefaction. According to Exhibit SAF-4 of the City's General Plan Safety Element and the California Department of Conservation's Earthquake Hazard Maps, the project site is not located in an area with potential for seismic hazards (City of Carson 2004; DOC 2019). In addition, compliance with design requirements set forth in the current California Building Code would reduce potential impacts from unstable geologic units. Therefore, impacts associated with unstable geologic units or soils would be less than significant.

d) Would the project be located on expansive soil, as defined in Table 18-1-B of the Uniform Building Code (1994), creating substantial direct or indirect risks to life or property?

Less Than Significant Impact. Expansive soils are characterized by their potential shrink/swell behavior. Shrink/swell is the change in volume (expansion and contraction) that occurs in certain fine-grained clay sediments from the cycle of wetting and drying. Clay minerals are known to expand with changes in moisture content. The higher the percentage of clay soils present in near surface soils, the higher the potential for soil expansion.

According to the City's General Plan EIR, the City is underlain by variations of alluvial soil, ranging from sandy to clay loam soil types. The Ramona-Placentia sandy loam in the City does present high potential for shrink/swell behavior (City of Carson 2002). However, the U.S. Department of Agriculture's Web Soil Survey does not identify the project site or surrounding area as containing clay soils, which are typically expansive. The project site is classified as Urban land-Centinela-Typic Xerorthents, which is described as discontinuous human-transported material over mixed alluvium (USDA 2021). In addition, compliance with design requirements set forth in the current California Building Code, which is no longer based on the Uniform

Building but rather the International Building Code and include specifics on expansive soils (Chapter 18 Section 1803.5.3), would reduce potential impacts associated with expansive soils. Therefore, impacts associated with expansive soils would be less than significant.

e) Would the project have soils incapable of adequately supporting the use of septic tanks or alternative waste water disposal systems where sewers are not available for the disposal of waste water?

No Impact. The project would connect to the existing Los Angeles County Department of Public Works Consolidated Sewer Maintenance District, which maintains local sewer lines. As such, the project would not require septic tanks or alternative wastewater disposal systems. Therefore, no impacts associated with septic systems would occur.

f) Would the project directly or indirectly destroy a unique paleontological resource or site or unique geologic feature?

Less Than Significant Impact with Mitigation Incorporated. According to surficial geological mapping by Dibblee (1999) at a 1:24,000 scale, the project site is underlain by Holocene to late Pleistocene elevated alluvium (map unit Qae). Elevated alluvium is lithologically similar to recent alluvium (map unit Qa), but is considered older because it is elevated and slightly dissected (Dibblee 1999). These deposits have the potential to preserve significant Ice-Age fossils.

In his compilation of Pleistocene and early Holocene vertebrates from California, Jefferson (1991) lists multiple fossil localities from this portion of the Los Angeles Basin, including several from the City of Carson. A fossil mammoth (Mammuthus) was recovered from an unspecified depth near the intersection of Figueroa Street and Sepulveda Boulevard, in an area mapped as elevated alluvium (map unit Qae). Additionally, a fossil bison (Bison) was reported near the intersection of Alameda Street and Sepulveda Boulevard, from an unstated depth below the surface (Jefferson 1991).

No paleontological resources were identified within the project area as a result of the desktop geological and paleontological review, and the project site is not anticipated to be underlain by unique geologic features. However, scientifically significant fossils have been recovered nearby from the same or similar Pleistocene deposits subsurface. These deposits are considered to have moderate to high paleontological sensitivity. Given the proximity of past fossil discoveries in the surrounding area and the potential for significant vertebrate fossils below any artificial fill present within the project site, the proposed project site is moderately to highly sensitive for supporting paleontological resources. In the event that intact paleontological resources are located on the project site, ground-disturbing activities associated with construction of the project, such as grading during site preparation and trenching for pipelines or utilities have the potential to destroy a unique paleontological resource or site. Without mitigation, the potential damage to paleontological resources during construction would be a potentially significant impact. However, upon implementation of MM-GEO-1, impacts would be reduced to below a level of significance. Impacts of the proposed project are considered less than significant with mitigation incorporated during construction.

MM-GEO-1 Prior to commencement of any grading activity on-site, the applicant shall retain a qualified paleontologist meeting the requirements outlined in the Society of Vertebrate Paleontology's 2010 guidelines (SVP 2010). The qualified paleontologist shall attend the preconstruction meeting and be on-site during all rough grading and other significant ground-disturbing activities in previously

undisturbed older alluvial deposits, if encountered. These deposits may be encountered at depth below ground surface. In the event that paleontological resources (e.g., fossils) are unearthed during grading, the paleontology monitor will temporarily halt and/or divert grading activity to allow recovery of paleontological resources. The area of discovery will be roped off with a 50-foot radius buffer. Once documentation and collection of the find is completed, the monitor will remove the rope and allow grading to recommence in the area of the find. Following construction-related earthmoving, the qualified paleontologist shall produce a final monitoring report documenting the monitoring program, including geological observations, fossil discoveries, laboratory and curatorial work, and the final disposition of the fossils.

3.8 Greenhouse Gas Emissions

	Potentially Significant Impact	Less Than Significant Impact With Mitigation Incorporated	Less Than Significant Impact	No Impact
VIII. GREENHOUSE GAS EMISSIONS – Would the project:				
a) Generate greenhouse gas emissions, either directly or indirectly, that may have a significant impact on the environment?	☐	☐	☒	☐
b) Conflict with an applicable plan, policy or regulation adopted for the purpose of reducing the emissions of greenhouse gases?	☐	☐	☒	☐

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

b) Would the project generate conflict with an applicable plan, policy or regulation adopted for the purpose of reducing the emissions of greenhouse gases?

Less Than Significant Impact. Climate change refers to any significant change in measures of climate (e.g., temperature, precipitation, or wind patterns) lasting for an extended period of time (i.e., decades or longer). The Earth's temperature depends on the balance between energy entering and leaving the planet's system, and many factors (natural and human) can cause changes in Earth's energy balance. The greenhouse effect is the trapping and buildup of heat in the atmosphere near the Earth's surface (the troposphere). The greenhouse effect is a natural process that contributes to regulating the Earth's temperature, and it creates a livable environment on Earth. Human activities that emit additional GHGs to the atmosphere increase the amount of infrared radiation that gets absorbed before escaping into space, thus enhancing the greenhouse effect and causing the Earth's surface temperature to rise. Global climate change is a cumulative impact; a project contributes to this impact through its incremental contribution combined with the cumulative increase of all other sources of GHGs. Thus, GHG impacts are recognized exclusively as cumulative impacts (CAPCOA 2008).

A GHG is any gas that absorbs infrared radiation in the atmosphere; in other words, GHGs trap heat in the atmosphere. As defined in California Health and Safety Code Section 38505(g) for purposes of administering many of the state's primary GHG emissions reduction programs, GHGs include CO_2, methane (CH_4), nitrous oxide (N_2O), hydrofluorocarbons, perfluorocarbons, sulfur hexafluoride, and nitrogen trifluoride (see also CEQA Guidelines Section 15364.5).[9] The three GHGs evaluated herein are CO_2, CH_4, and N_2O because these gases would be emitted during proposed project construction and operations.

The Intergovernmental Panel on Climate Change developed the global warming potential (GWP) concept to compare the ability of each GHG to trap heat in the atmosphere relative to another gas. The reference gas used is CO_2; therefore, GWP-weighted emissions are measured in metric tons (MT) of CO_2 equivalent (CO_2e). Consistent with CalEEMod Version 2016.3.2, this GHG emissions analysis assumed the GWP for CH_4 is 25 (i.e., emissions of 1 MT of CH_4 are equivalent to emissions of 25 MT of CO_2), and the GWP for N_2O is 298, based on the Intergovernmental Panel on Climate Change's Fourth Assessment Report (IPCC 2007).

While the City has a Climate Action Plan (CAP), the City has not adopted a numerical significance threshold for assessing impacts related to GHG emissions, nor have the SCAQMD, CARB, or any other state or regional agency adopted a numerical significance threshold for assessing GHG emissions that is applicable to the project. Since there is no applicable adopted or accepted numerical threshold of significance for GHG emissions, the methodology for evaluating the proposed project's impacts related to GHG emissions focuses on its consistency with statewide, regional, and local plans adopted for the purpose of reducing and/or mitigating GHG emissions. This evaluation of consistency with such plans is the sole basis for determining the significance of the project's GHG-related impacts on the environment.

Notwithstanding, for informational purposes, the analysis also calculates the amount of GHG emissions that would be attributable to the proposed project using recommended air quality models, as described in the following text. The primary purpose of quantifying the project's GHG emissions is to satisfy CEQA Guidelines Section 15064.4(a), which calls for a good-faith effort to describe and calculate emissions.

Construction GHG Emissions

Construction of the proposed project would result in GHG emissions, which are primarily associated with use of off-road construction equipment, on-road vendor trucks, and worker vehicles. The SCAQMD recommends that "construction emissions be amortized over a 30-year project lifetime, so that GHG reduction measures will address construction GHG emissions as part of the operational GHG reduction strategies" (SCAQMD 2008a). Thus, the total construction GHG emissions were calculated, amortized over 30 years, and added to the total operational emissions.

CalEEMod was used to calculate the annual GHG emissions based on the construction scenario described in Section 3.3. Construction of the proposed project is anticipated to commence in October 2021 lasting a total of 16 months. On-site sources of GHG emissions include off-road equipment and off-site sources including haul trucks, vendor trucks, and worker vehicles. Table 3.8-1 presents construction GHG emissions for the proposed project from on-site and off-site emission sources.

[9] Climate-forcing substances include GHGs and other substances such as black carbon and aerosols. This discussion focuses on the seven GHGs identified in the California Health and Safety Code Section 38505; impacts associated with other climate-forcing substances are not evaluated herein.

Table 3.8-1. Estimated Annual Construction GHG Emissions

Year	CO_2	CH_4	N_2O	CO_2e
	Metric Tons per Year			
2021	84.29	0.01	<0.01	86.61
2022	191.95	0.04	<0.01	194.07
2023	12.27	<0.01	<0.01	12.39
Total	**288.51**	**0.05**	**<0.01**	**293.07**
			Amortized Emissions (over 30 years)	*9.77*

Notes:
CO_2 = carbon dioxide; CH_4 = methane; N_2O = nitrous oxide; CO_2e = carbon dioxide equivalent.
See Appendix B for complete results.

As shown in Table 3.8-1, the estimated total GHG emissions during construction of the proposed project would be approximately 106 MT CO_2e. Estimated project-generated construction emissions amortized over 30 years would be approximately 9.77 MT CO_2e per year. As with project-generated construction air quality pollutant emissions, GHG emissions generated during construction of the proposed project would be short-term in nature, lasting only for the duration of the construction period, and would not represent a long-term source of GHG emissions.

Operational Emissions

CalEEMod Version 2020.4.0 was used to estimate potential project-generated operational GHG emissions from area sources (natural gas combustion and landscape maintenance), electrical generation (including electrical generation associated with water supply and wastewater treatment), mobile source and solid waste.

Emissions from each category—area sources, energy sources, mobile sources, solid waste, and water supply and wastewater treatment—is discussed in the following text with respect to the proposed project. For additional details, see Section 3.3 for a discussion of operational emission calculation methodology and assumptions. Operational year 2023 was assumed following completion of construction.

Area Sources

CalEEMod was used to estimate GHG emissions from the proposed project's area sources, which include operation of gasoline-powered landscape maintenance equipment, which produce minimal GHG emissions. It was assumed that 100% of the landscaping equipment would be gasoline powered. Consumer product use and architectural coatings result in VOC emissions, which are analyzed in air quality analysis only.

Energy Sources

The estimation of operational energy emissions was based on CalEEMod land use defaults and units or total area (i.e., square footage) of the proposed project's land uses. For residential buildings, CalEEMod energy intensity value (electricity or natural gas usage per square foot per year) assumptions were based on the California Residential End-Use Survey database. Emissions are calculated by multiplying the energy use by the utility carbon intensity (pounds of GHGs per kilowatt-hour for electricity or 1,000 British thermal units for natural gas) for CO_2 and other GHGs. Annual natural gas (non-hearth) and electricity emissions

were estimated in CalEEMod using the emissions factors for SCE, which would be the energy source provider for the proposed project. CalEEMod default energy intensity factors (CO_2, CH_4, and N_2O mass emissions per kilowatt-hour) for SCE is based on the value for SCE's energy mix in 2012, adjusted based on SCE 2019 Power Content Label. While not included in the analysis, some of Project's energy will be generated onsite as a result of the solar photovoltaic energy requirements of the 2019 Title 24, Part 6 building standards as defined in Title 24, Part 6 Section 150.1(c) Item 14. Therefore, GHG emissions estimated from proposed project's electricity consumption are conservative.

Mobile Sources

All details for criteria air pollutants discussed in Section 3.3 are also applicable for the estimation of operational mobile source GHG emissions. Regulatory measures related to mobile sources include Assembly Bill (AB) 1493 (Pavley) and related federal standards. AB 1493 required that CARB establish GHG emission standards for automobiles, light-duty trucks, and other vehicles determined by CARB to be vehicles that are primarily used for noncommercial personal transportation in the state. In addition, the National Highway Safety Administration and EPA have established corporate fuel economy standards and GHG emission standards, respectively, for automobiles and light-, medium-, and heavy-duty vehicles. Implementation of these standards and fleet turnover (replacement of older vehicles with newer ones) will gradually reduce emissions from the proposed project's motor vehicles. In addition, the Low Carbon Fuel Standard calls for a 10% reduction in the "carbon intensity" of motor vehicle fuels by 2020.

Solid Waste

The proposed project would generate solid waste, and therefore, result in CO_2e emissions associated with landfill off-gassing. CalEEMod default values for solid waste generation were used to estimate GHG emissions associated with solid waste.

Water and Wastewater

Supply, conveyance, treatment, and distribution of water for the proposed project require the use of electricity, which would result in indirect GHG emissions. Similarly, wastewater generated by the proposed project requires the use of electricity for conveyance and treatment, along with GHG emissions generated during wastewater treatment. Water consumption estimates for both indoor and outdoor water use and associated electricity consumption from water use and wastewater generation were estimated using CalEEMod.

The estimated operational (year 2023) project-generated GHG emissions from area sources, energy usage, motor vehicles, solid waste generation, and water usage and wastewater generation are shown in Table 3.8-2.

Table 3.8-2. Estimated Annual Operational GHG Emissions

Emission Source	CO_2	CH_4	N_2O	CO_2e
	Metric Tons per Year			
Area	4.20	<0.01	<0.01	4.23
Energy	36.01	<0.01	<0.01	36.20
Mobile	112.79	0.01	<0.01	114.45
Solid waste	1.78	0.11	0.00	4.40
Water supply and wastewater	5.02	0.04	<0.01	6.34

Table 3.8-2. Estimated Annual Operational GHG Emissions

Emission Source	CO_2	CH_4	N_2O	CO_2e
	Metric Tons per Year			
Total				**165.62**
Amortized Construction Emissions				*9.77*
Operation + Amortized Construction Total				**175.39**

Notes: CO2 = carbon dioxide; CH4 = methane; N2O = nitrous oxide; CO2e = carbon dioxide equivalent
See Appendix B for detailed results. Values of "<0.01" indicate that the estimated emissions are less than two decimals. Totals may not sum due to rounding.

As shown in Table 3.8-2, estimated annual project-generated GHG emissions would be approximately 206 MT CO_2e per year as a result of proposed project operation. Estimated annual project-generated operational emissions in 2023 and amortized project construction emissions would be approximately 175 MT CO_2e per year.

Greenhouse Gas Plan Consistency

The following discussion analyzes the project's consistency with the City's CAP, 2020–2045 RTP/SCS, and 2017 Scoping Plan. However, the CAP is not a qualified GHG reduction plan under CEQA that the proposed project would be able to tier from and the City has not yet adopted a such plan. Therefore, the proposed project's consistency with the CAP has been included for informational purposes only.

City of Carson Climate Action Plan - 2017

In 2017, the City of Carson, in cooperation with the South Bay Cities Council of Governments, developed a CAP. The CAP serves as a guide for action by setting GHG emission reductions goals and establishes strategies and policy to achieve outcomes over the preceding 20 years. However, the CAP does not meet the requirements of CEQA Guidelines Section 15183.5 and thus can't be used for tiering. The CAP identifies strategies in the following select areas.

- Land Use and Transportation - Facilitate pedestrian and neighborhood development and identify ways to reduce automobile emissions including supporting zero emission vehicle infrastructure, improving pedestrian and bicycle infrastructure, enhancing public transit service, and supporting reductions in single-occupancy vehicle use.
- Energy Efficiency - Emphasize energy efficiency retrofits for existing buildings, energy performance requirements for new construction, water efficient landscaping, financing programs that will allow home and business owners to obtain low-interest loans for implementing energy efficiency in their buildings.
- Solid Waste - Focus on increasing waste diversion and encouraging participation in recycling and composting throughout the community.
- Urban Greening - Contain measures that create "carbon sinks" as they store GHG emissions that are otherwise emitted into the atmosphere as well as support health of the community.
- Energy Generation & Storage - Demonstrate the City's commitment to support the implementation of clean, renewable energy while decreasing dependence on traditional, GHG emitting power sources.

As described in the CAP, the five categories identified above, have the potential to reduce approximately 256,741 MT CO_2e emissions per year and accomplish the City's reduction targets of 15% below 2005 by 2020 and 49% below 2005 by 2035.

The project would construct a 19-unit multifamily residential community along South Main Street. According to SCAG's 2020–2045 forecast, the City of Carson is expected to add approximately 11,600 people within this period (SCAG 2020). Additionally, the General Plan Housing Element identifies a need for future housing development. Thus, the project would provide for the need of more housing to support the expected increase in residents. Of the five CAP categories, Land Use and Transportation and Energy Efficiency are relevant to the proposed project. Consistent with Land Use and Transportation strategies, the proposed project would accommodate future zero emission vehicle with passenger electric vehicle charging. In addition, the project would include bicycle parking to allow for residents to utilize bicycles as a mode of transportation. The proposed project would support the CAP Energy Efficiency strategy through compliance with Title 24 building energy efficiency standards. The construction and operation of the proposed project would not interfere with the City's CAP strategies for Urban Greening or Energy Generation and Storage. As such, the proposed project would not conflict with the City's implementation of the CAP, See Table 3.8-3.

Table 3.8-3. Project Consistency with CAP

Goal	Measure	Project Compliance
Goal LUT: G – Land Use Strategies	**Measure EE: G1 – Increase Density.** These strategies seek to increase destination accessibility by encouraging combined uses such as office, commercial, institutional, and residential within areas and developments.	**Consistent.** The Project would include 19-unit multifamily residential community. As a multifamily residential infill project, the proposed project would comply with this CAP measure.
Goal EE: B – Increase Energy Efficiency in New Residential Developments	**Measure EE: B1 – Encourage or require EE Standards Exceeding Title 24.** As part of the 2010 California Green Building Standards (CALGreen), a two-tiered system was designed to allow local jurisdictions to adopt codes that go beyond state standards. The two tiers contain measures that are more stringent and achieve an increased reduction in energy usage by 15% (Tier 1) or 30% (Tier 2) beyond Title 24. It is also important that Title 24 Standards are updated so that the full GHG reduction benefit of the title can be realized. City staff that are well-informed can implement updates quickly and effectively.	**Consistent.** It should be noted that the 2016 CALGreen and Title 24 standards were effective when the CAP was adopted. Since then, the 2019 CALGreen and Title 24 standards were adopted. Therefore, the Project would comply with the 2019 CALGreen and Title 24 standards. The 2019 Title 24 standards, which took effect on January 1, 2020, promote photovoltaic systems in newly constructed residential buildings.
Goal EE: E. – Increase Energy Efficiency through Water Efficiency (WE)	**Measure EE: E1 – Promote or Require Water Efficiency through SB X7-7.** **Measure EE: E2 – Promoting Water Efficiency Standards Exceeding SB X7-7.**	**Consistent.** The Project would consume water from water suppliers that would comply with Senate Bill X7-7 and the Water Sector of the AB 32 Scoping Plan. In addition, the proposed project would comply with applicable outdoor water conservation measures outlined per California water regulations (AB 1881) and applicable local water efficient landscape ordinances. The project site would receive its water supply from the Dominguez District of Cal Water. Based on the 2015 Urban Water Management Plan, the Dominguez District receives its water from 17% groundwater, 15% recycled water, and 68% purchased water.
Goal SW: A – Increase Diversion and Reduction of Residential Waste	**Measure SW: A2 – Implement Residential Collection Programs to Increase Diversion of Waste.**	**Consistent.** The City Public Works Environmental Services administers contracts for the collection and processing of residential, commercial, and industrial refuse

Table 3.8-3. Project Consistency with CAP

Goal	Measure	Project Compliance
		and recyclable. The proposed project would not hinder the City's efforts to Implement Residential Collection Programs to Increase Diversion of Waste.

Source: SBCCG 2017; CEC 2019
Notes: EV = electric vehicle

Southern California Association of Governments Connect SoCal

On September 3, 2020, Connect SoCal was adopted by SCAG's Regional Council. Connect SoCal is a long-range visioning plan that builds upon and expands land use and transportation strategies established over several planning cycles to increase mobility options and achieve a more sustainable growth pattern. It charts a path toward a more mobile, sustainable and prosperous region by making connections between transportation networks, between planning strategies and between the people whose collaboration can improve the quality of life for Southern Californians. Because the project would be not growth inducing, this type of consistency analysis does not apply. However, the major goals of the Connect SoCal are outlined in Table 3.8-4, Project Consistency with the SCAG Connect SoCal RTP/SCS, along with the project's consistency with them.

Table 3.8-4. Project Consistency with the SCAG Connect SoCal RTP/SCS

RTP/SCS Measure	Proposed Project Potential to Conflict
Encourage regional economic prosperity and global competitiveness.	*Not applicable.* The proposed project would not inhibit SCAG from encouraging regional economic prosperity and global competitiveness.
Improve mobility, accessibility, reliability, and travel safety for people and goods.	*Not applicable.* The proposed project would not inhibit SCAG from strengthening the regional transportation network for goods movement.
Enhance the preservation, security, and resilience of the regional transportation system.	*Not applicable.* The proposed project would not inhibit SCAG from enhancing the resilience of the regional transportation system.
Increase person and goods movement and travel choices within the transportation system.	*Not applicable.* The proposed project would not inhibit SCAG from increasing person and goods movement and travel choices within the transportation system.
Reduce greenhouse gas emissions and improve air quality.	*No conflict.* The proposed project would result in criteria air pollutant and GHG emissions during construction and operation. However, the proposed project would generate less than 110 daily trips and it would be screened from a VMT analysis per the OPR's Small Project screening criteria. The proposed project would not interfere with implementation of GHG reduction goals for 2030 or 2050 because it would result in minimal annual GHG emissions, approximately 210 MT CO_2e per year, would provide for the need of more housing to support the expected increase in residents as outlined in the General Plan Housing Element and supported by SCAG's 2020-2045 forecast. In addition, as presented in Section 3.3, Air Quality, the proposed project would not exceed the SCAQMD air

Table 3.8-4. Project Consistency with the SCAG Connect SoCal RTP/SCS

RTP/SCS Measure	Proposed Project Potential to Conflict
	quality mass daily significance thresholds during construction or operation. In addition, the proposed project would comply with 2019 Title 24 and CalGreen code, which would help reduce energy consumption and thus reduce the project generated GHG emissions.
Support healthy and equitable communities.	*No conflict*. The project would include the construction of a 19-unit multifamily residential complex. The complex would add diversity in housing options for City of Carson residents.
Adapt to a changing climate and support an integrated regional development pattern and transportation network.	*Not applicable.* The proposed project would not inhibit SCAG from supporting an integrated regional development pattern and transportation network.
Leverage new transportation technologies and data-driven solutions that result in more efficient travel.	*Not applicable.* The proposed project would not inhibit SCAG from leveraging technology for the transportation system.
Encourage development of diverse housing types in areas that are supported by multiple transportation options.	*No conflict*. The proposed project would be located between the I-405, approximately 1 mile to the east, and I-110, approximately 0.5 mile to the west. As discussed in Section 3.17, Transportation, the proposed project would not conflict with the Congestion Management Program (CMP), the City's Transportation and Infrastructure Element, the Carson 2040 Plan, or the Carson Master Plan of Bikeways. The proposed project would not alter the existing roadway network nor hinder the City's ability to emphasize a diversity of transportation modes or choices Bicyclist and pedestrian safety would be maintained at existing levels in the area, as there would be no changes to the existing pedestrian or bicycle circulation system.
Promote conservation of natural and agricultural lands and restoration of habitats.	*No conflict.* The proposed project would not impact natural lands during construction or operation. The proposed project site is approximately 0.52 acres, currently vacant, disturbed land with no existing structures

Source: SCAG 2020.

As shown in Table 3.8-4, the project would be consistent with all applicable measures within the SCAG Connect SoCal RTP/SCS.

California Air Resources Board Scoping Plan and Reduction Goals

The Climate Change Scoping Plan, approved by CARB in 2008 and updated in 2014 and 2017, provides a framework for actions to reduce California's GHG emissions and requires CARB and other state agencies to adopt regulations and other initiatives to reduce GHGs. The Scoping Plan is not directly applicable to specific projects, and it is not intended to be used for project-level evaluations.[10] Under the Scoping Plan, however, there are several state regulatory measures aimed at identifying and reducing GHG emissions. CARB and other state agencies have adopted many of the measures identified in the Scoping Plan. Most

[10] The Final Statement of Reasons for the amendments to the CEQA Guidelines reiterates the statement in the Initial Statement of Reasons that "[t]he Scoping Plan may not be appropriate for use in determining the significance of individual projects because it is conceptual at this stage and relies on the future development of regulations to implement the strategies identified in the Scoping Plan" (California Natural Resources Agency 2009).

of these measures focus on area source emissions (e.g., energy usage, and high-GWP GHGs in consumer products) and changes to the vehicle fleet (e.g., hybrid, electric, and more fuel-efficient vehicles) and associated fuels, among others.

Regarding consistency with SB 32 (goal of reducing GHG emissions to 40% below 1990 levels by 2030) and Executive Order S-3-05 (goal of reducing GHG emissions to 80% below 1990 levels by 2050), there are no established protocols or thresholds of significance for that future-year analysis. However, CARB has expressed optimism with regard to both the 2030 and 2050 goals. It states in the First Update to the Climate Change Scoping Plan: Building on the Framework that "California is on track to meet the near-term 2020 GHG emissions limit and is well positioned to maintain and continue reductions beyond 2020 as required by AB 32" (CARB 2014). With regard to the 2050 target for reducing GHG emissions to 80% below 1990 levels, CARB (2014) states the following:

> This level of reduction is achievable in California. In fact, if California realizes the expected benefits of existing policy goals (such as 12,000 megawatts of renewable distributed generation by 2020, net zero energy homes after 2020, existing building retrofits under Assembly Bill 758, and others) it could reduce emissions by 2030 to levels squarely in line with those needed in the developed world and to stay on track to reduce emissions to 80% below 1990 levels by 2050. Additional measures, including locally driven measures and those necessary to meet federal air quality standards in 2032, could lead to even greater emission reductions.

In other words, CARB believes that the state is on a trajectory to meet the 2030 and 2050 GHG reduction targets set forth in AB 32, SB 32, and Executive Order S-3-05. This is confirmed in the 2017 Climate Change Scoping Plan Update, which states (CARB 2017):

> The Proposed Plan builds upon the successful framework established by the Initial Scoping Plan and First Update, while also identifying new, technologically feasibility and cost-effective strategies to ensure that California meets its GHG reduction targets in a way that promotes and rewards innovation, continues to foster economic growth, and delivers improvements to the environment and public health, including in disadvantaged communities. The Proposed Plan is developed to be consistent with requirements set forth in AB 32, SB 32, and AB 197.

The proposed project would not interfere with implementation of GHG reduction goals for 2030 or 2050 because it would result in minimal annual GHG emissions, approximately 175 MT CO_2e per year, would provide for the need of more housing to support the expected increase in residents as outlined in the General Plan Housing Element and supported by SCAG's 2020–2045 forecast and would be consistent with the City CAP, which targets GHG reductions of 49% below 2005 by 2035. Thus, the project would not conflict with the City CAP or the SCAG RTP/SCS or with the state's trajectory toward future GHG reductions. Although the proposed project's emissions level in 2050 cannot be reliably quantified, statewide efforts are underway to facilitate the State's achievement of that goal, and it is reasonable to expect the proposed project's emissions level to decline as the regulatory initiatives identified by CARB are implemented, and other technological innovations occur. The proposed project would meet Title 24 water efficiency requirements and energy requirements. As such, given the reasonably anticipated decline in project emissions as the proposed project becomes operational, the proposed project would be consistent with Executive Order S-3-05's horizon-year goal.

In addition, the proposed project would generate less than 110 daily trips, it would be screened from a VMT analysis per the OPR's Small Project screening criteria. Therefore, the project would not conflict or be inconsistent with CEQA Guidelines Section 150645.3(b), and transportation impacts would be less than significant. In addition, the project falls in line with the South Bay Cities Council of Governments' (SBCCG) Livable Communities Program and encourage residential density to support walkable neighborhoods and establish supportive transportation investments and land use decisions. The project also coordinates with SCAG and the adopted Connect SoCal, which identifies a land use strategy that aims to plan for changing demand in housing types and supply. As such, the proposed project is the type of land use development that is encouraged by the Connect SoCal to reduce VMT and expand multi-modal transportation options in order to achieve the GHG reductions from the land use and transportation sectors. By furthering implementation of SB 375, the project supports regional land use and transportation GHG reductions consistent with state climate targets for 2030 and beyond.

For the reasons described above, the proposed project's post-2030 emissions trajectory is expected to follow a declining trend, consistent with the 2030 and 2050 targets and Executive Order S-3-05. Because the proposed project would be consistent with the applicable plans and regulations adopted for the purpose of reducing the emissions of GHGs, project-related GHG impacts would be less than significant.

3.9 Hazards and Hazardous Materials

	Potentially Significant Impact	Less Than Significant Impact With Mitigation Incorporated	Less Than Significant Impact	No Impact
IX. HAZARDS AND HAZARDOUS MATERIALS – Would the project:				
a) Create a significant hazard to the public or the environment through the routine transport, use, or disposal of hazardous materials?	☐	☒	☐	☐
b) Create a significant hazard to the public or the environment through reasonably foreseeable upset and accident conditions involving the release of hazardous materials into the environment?	☐	☐	☒	☐
c) Emit hazardous emissions or handle hazardous or acutely hazardous materials, substances, or waste within one-quarter mile of an existing or proposed school?	☐	☐	☐	☒
d) Be located on a site that is included on a list of hazardous materials sites compiled pursuant to Government Code Section 65962.5 and, as a result, would it create a significant hazard to the public or the environment?	☐	☐	☐	☒

	Potentially Significant Impact	Less Than Significant Impact With Mitigation Incorporated	Less Than Significant Impact	No Impact
e) For a project located within an airport land use plan or, where such a plan has not been adopted, within two miles of a public airport or public use airport, would the project result in a safety hazard or excessive noise for people residing or working in the project area?	☐	☐	☐	☒
f) Impair implementation of or physically interfere with an adopted emergency response plan or emergency evacuation plan?	☐	☐	☒	☐
g) Expose people or structures, either directly or indirectly, to a significant risk of loss, injury or death involving wildland fires?	☐	☐	☐	☒

a) Would the project create a significant hazard to the public or the environment through the routine transport, use, or disposal of hazardous materials?

Short-Term Construction Impacts

Use of Hazardous Materials

Less Than Significant Impact During construction of the project, potentially hazardous materials would likely be handled on the project site. These materials would include gasoline, diesel fuel, lubricants, and other petroleum-based products required to operate and maintain construction equipment. Handling of these potentially hazardous materials would be temporary and would coincide with the short-term construction phase of the project.

Although these materials would likely be stored on the project site, storage would be required to comply with the guidelines set forth by each product's manufacturer and with all applicable federal, state, and local regulations pertaining to the storage of hazardous materials. Consistent with federal, state, and local requirements, the transport of hazardous materials to and from the project site would be conducted by a licensed contractor. Any handling, transport, use, or disposal of hazardous materials would comply with all relevant federal, state, and local agencies and regulations, including the EPA, the California Department of Toxic Substances Control, the California Occupational Safety and Health Administration, Caltrans, the Resource Conservation and Recovery Act, the SCAQMD, and the Los Angeles County Certified Unified Program Agency. Therefore, short-term construction impacts related to the transport, use, or disposal of hazardous materials would be less than significant.

Subsurface Impacts

Less Than Significant Impact with Mitigation Incorporated. Construction of the project would involve earthwork excavation and construction of new buildings. A Phase I Environmental Site Assessment (ESA) was completed by Cal Land Engineering Inc. on December 12, 2019 (Appendix E). Section 3.3 of the Phase

I ESA stated historical uses of the project site included a real estate office and a church. While not discussed in the Phase I ESA, building permits included as an appendix to the Phase I ESA noted the subject property was used as a gas station in 1947, and the real estate office building was permitted for relocation onto the subject property from a different location in 1952. The existing buildings on the project site were demolished in 1987, and the site has remained vacant through present day (Appendix E). Findings of the Phase I ESA stated that no aboveground or underground storage tanks were observed during the site reconnaissance, the potential of high concentration radon occurring at the site is remote, and no oil wells are located on the subject property or any adjacent properties (Appendix E). While Section 5.1 of the Phase I ESA recommends an evaluation of asbestos prior to building construction and remodeling, Dudek believes this recommendation is in error, as there are currently no buildings on the subject property. As building demolition was permitted and completed in the 1980s, it is unlikely asbestos-containing materials are a concern for the site. There are 6 leaking underground storage tanks within 0.5 miles of the project site (Appendix E); none of these are located on the project site itself and no known underground storage tanks are on the site. While there are no documented release cases on the project site, its historical use as an automotive fueling station may have resulted in environmental contamination due to a lack of environmental regulations before the 1980s and poor management of fuels/chemicals. Specifically, petroleum hydrocarbons, VOCs, and/or polyaromatic hydrocarbons (PAHs) could have impacted soil, soil vapor and/or groundwater. MM-HAZ-1 requires environmental sampling of soil and soil vapor to confirm the presence or absence of contamination or underground storage tanks related to the former use as a gas station, and, if contamination is identified, requires remediation of the site so that contamination does not exceed screening levels for residential land use. MM-HAZ-2 requires preparation of a Hazardous Materials Contingency Plan to address potential impacts to soils and soil vapor during construction, if not remediated under MM-HAZ-1.

Dudek completed a regulatory review of environmental databases to identify sites that may have impacted the environmental condition of the project site. The project site is adjacent to an automotive body shop that is listed within the California Environmental Reporting System as a Hazardous Waste Generator, routinely monitored by the Los Angeles County Fire Department (CalEPA 2021). According to the California Environmental Reporting System, the site has been reporting hazardous waste generation since 2013. Environmental impacts may be associated with the auto body shop, such as releases of petroleum products and VOCs. While there are no documented releases associated with this body shop, potential environmental impacts to the project site related to these automotive operations would be identified and mitigated with MM-HAZ-1.

Dudek also identified the nearest Cleanup Program Site, which is at 21208 Shearer Avenue, 0.1 miles away from the project site. This site is currently open and inactive (RWQCB 2021), but a restrictive covenant has been placed on the land due to soil and soil vapor contamination. This type of contamination is not anticipated to impact the project site, as it is not adjacent to the project site. The nearest well is a plugged oil and gas well at 21035 Shearer Avenue, which is 0.2 miles away from the project site (DOC 2021). Los Angeles County requires mitigation measures for oil and gas wells located less than 300 feet from a proposed building. As this well is greater than 300 feet from the project site, it is unlikely it will be impacted by the proposed project. However, according to the Los Angeles County Solid Waste Information Management System (SWIMS 2021), the project site is located within 1,000 feet of a former landfill (Imperial Carson Mobile Home Park) and therefore may be subject to methane mitigation requirements in accordance with Los Angeles County Public Works policies, standards, and regulations, such as Sections 110.3, 110.4, and 110.5 of Title 26, Los Angeles County Code (January 2020).

MM-HAZ-1 **Phase II Environmental Site Assessment and Remediation**. Prior to commencement of construction or excavation activities, a Phase II Environmental Site Assessment (ESA) shall be completed to properly characterize and delineate the potential impacts due to historical property use as a gas station, as well as the potential presence of other related components on site (e.g., underground storage tanks, underground piping). The Phase II ESA will be completed in accordance with the ASTM Standard E 1903-11 (ASTM 2011), and the Public Draft Supplemental Guidance for Screening and Evaluating Vapor Intrusion (DTSC 2020). The laboratory results of the Phase II ESA sampling will be compared to residential Environmental Screening Levels (ESL 2019). Should contaminants be identified that exceed the residential ESLs, remediation will be conducted to reduce contamination to acceptable levels (i.e. below the applicable ESLs) and/or engineering controls will be designed for site development to eliminate exposure to future occupants and site users. If underground storage tanks or related appurtenances are identified, they will be removed in accordance with Los Angeles County CUPA regulations. The Phase II ESA and remediation will be completed by an environmental professional and licensed engineer or geologist. The engineering controls, if required, will be designed by an engineer licensed in the State of California in accordance with the most recent and applicable federal, state, and local laws and regulations to eliminate potential exposure to future occupants. The Phase II results, remediation results, and/or engineering control designs will be submitted to Los Angeles County and City of Carson for review and approval prior to issuance of building permits.

MM-HAZ-2 **Hazardous Materials Contingency Plan.** Prior to commencement of construction or excavation activities, a Hazardous Materials Contingency Plan (HMCP) shall be developed to address impacts identified during the Phase II ESA (MM-HAZ-1) that are not remediated, but instead remain on the project site, and will later be controlled using engineering controls. The HMCP shall include health and safety measures, including periodic worker breathing zone monitoring and monitoring for volatile organic compounds in accordance with SCAQMD Rule 1166, and all applicable health and safety requirements under CalOSHA. Contaminated soils removed from the project site as part of the proposed project development will be characterized, documented, and disposed of in accordance with federal, state, and local regulations related to transportation, handling, and disposal of contaminated soils.

Long-Term Operational Impacts

Less Than Significant Impact with Mitigation Incorporated. As a residential land use, potentially hazardous materials associated with operation of the project would include those materials typically associated with cleaning and maintenance activities. Although these materials would vary, they would generally include household cleaning products, solvents, paints, fertilizers, and herbicides and pesticides. Many of these materials are considered household hazardous wastes, common wastes, and universal wastes by the EPA, which considers these types of wastes common to businesses and households and to pose a lower risk to people and the environment than other hazardous wastes when properly handled, transported, used, and disposed of (EPA 2020). Federal, state, and local regulations typically allow these types of wastes to be handled and disposed of under less-stringent standards than other hazardous wastes, and many of these wastes do not need to be managed as hazardous waste.

In addition, any potentially hazardous material handled on the project site would be limited in quantity and concentration, consistent with other similar residential uses located in the City, and any handling, transport, use, and disposal of such material would comply with applicable federal, state, and local agencies and

regulations. In addition, as mandated by the Occupational Safety and Health Administration, all hazardous materials stored on the project site would be accompanied by a Materials Safety Data Sheet, which would inform on-site personnel and residents of the necessary remediation procedures in the case of accidental release (OSHA 2012). Posting of the referenced Materials Safety Data Sheet is necessitated given the potential for handling and use of hazardous materials on-site during maintenance activities. As discussed in Short-Term Construction Impacts, subsurface impacts associated with historical site use as a gas station would be identified, remediated, and/or engineering controls would be developed under MM-HAZ-1. As part of MM-HAZ-1, a Phase II ESA may be conducted, and the potential for ongoing monitoring and reporting may occur until the site receives a closure designation. Therefore, long-term operational impacts associated with the use, transport, and disposal of hazardous materials would be less than significant with mitigation incorporated.

b) Would the project create a significant hazard to the public or the environment through reasonably foreseeable upset and accident conditions involving the release of hazardous materials into the environment?

Short-Term Construction Impacts

Less Than Significant Impact. As discussed in Section 3.9(a), during construction of the project, potentially hazardous materials would likely be handled on the project site. These materials would include gasoline, diesel fuel, lubricants, and other petroleum-based products required to operate and maintain construction equipment. Handling of these potentially hazardous materials would be temporary and would coincide with the short-term construction phase of the project.

The Los Angeles County Fire Department regulates the use and storage of hazardous substances and responds to hazardous materials release incidents in the City. In the event that its services are required, the Health Hazardous Materials Division would dispatch members to ensure any spill or unauthorized releases would be properly removed, handled, transported, and disposed (LACoFD 2021). In addition, the City's General Plan policies would further reduce the potential for release of hazardous materials into the environment (City of Carson 2004). Therefore, short-term construction impacts related to the accidental release of hazardous materials would be less than significant.

Long-Term Operational Impacts

Less Than Significant Impact. As a residential land use, potentially hazardous materials associated with operation of the project would include those materials typically associated with cleaning and maintenance activities. Although these materials would vary, they would generally include household cleaning products, solvents, paints, fertilizers, and herbicides and pesticides. Many of these materials are considered household hazardous wastes, common wastes, and universal wastes by the EPA, which considers these types of wastes common to businesses and households and to pose a lower risk to people and the environment than other hazardous wastes when properly handled, transported, used, and disposed of (EPA 2020). Federal, state, and local regulations typically allow these types of wastes to be handled and disposed of under less-stringent standards than other hazardous wastes, and many of these wastes do not need to be managed as hazardous waste.

In addition, any potentially hazardous material handles on the project site would be limited in quantity and concentration, consistent with other similar residential uses located in the City, and any handling, transport,

use, and disposal of such material would comply with applicable federal, state, and local agencies and regulations. In addition, as mandated by the Occupational Safety and Health Administration, all hazardous materials stored on the project site would be accompanied by a Materials Safety Data Sheet, which would inform on-site personnel and residents of the necessary remediation procedures in the case of accidental release (OSHA 2012). As referenced above, posting of the Materials Safety Data Sheet is necessitated given the potential for handling and use of hazardous materials on-site during maintenance activities. Therefore, long-term operational impacts associated with the use, transport, and disposal of hazardous materials would be less than significant.

c) Would the project emit hazardous emissions or handle hazardous or acutely hazardous materials, substances, or waste within one-quarter mile of an existing or proposed school?

No Impact. Land uses and activities typically associated with hazardous emissions or handling of hazardous or acutely hazardous materials, substances, or waste include commercial, manufacturing, research, and industrial uses. The project would not include any such uses or activities.

The project site is located approximately 0.4 miles northwest of Carson Street Elementary School (161 E Carson Street). As such, the project would not emit hazardous emissions or include handling of hazardous or acutely hazardous materials, substances, or wastes within 0.25 miles of an existing or proposed school. Therefore, no impacts associated with the emitting or handling or hazardous materials within 0.25 miles of a school would occur.

d) Would the project be located on a site that is included on a list of hazardous materials sites compiled pursuant to Government Code Section 65962.5 and, as a result, would it create a significant hazard to the public or the environment?

No Impact. The Hazardous Waste and Substances Sites (Cortese List) is a planning document providing information about the location of hazardous materials release sites. California Government Code Section 65962.5 requires the California Environmental Protection Agency to develop, at least annually, an updated Cortese List. The Department of Toxic Substances Control is responsible for a portion of the information contained in the Cortese List. Other state and local government agencies are required to provide additional hazardous materials release information for the Cortese List (CalEPA 2021). A review of Cortese List online data resources does not identify hazardous materials or waste sites on the project site or immediately surrounding area (DTSC 2021; RWQCB 2021). Therefore, no impacts associated with inclusion on the Cortese List would occur.

e) For a project located within an airport land use plan or, where such a plan has not been adopted, within two miles of a public airport or public use airport, would the project result in a safety hazard or excessive noise for people residing or working in the project area?

No Impact. The closest public airports to the project site are the Torrance Municipal Airport, which is located approximately 4 miles southwest of the project site, and the Compton/Woodley Airport, which is located approximately 4 miles northeast of the project site. According to the Los Angeles County Airport Land Use Commission, the project is not located within the airport land use plans for these nearby airports (ALUC 2021). The project site is located outside of any airport impact zones, and as such, the project would not result in a safety hazard for people residing in the project area. Therefore, no impacts associated with public airport hazards would occur.

f) Would the project impair implementation of or physically interfere with an adopted emergency response plan or emergency evacuation plan?

Less Than Significant Impact. Exhibit SAF-5 of the City's General Plan Safety Element shows the location of collection points and evacuation routes for the City (City of Carson 2004). The project would be required to comply with the City's Emergency Plan, adopted pursuant to Section 3707 of the Municipal Code (City of Carson 2020a).

In addition, the project would be provided emergency access routes along Main Street and Carson Street. The project site is also provided regional access via I-110 and I-405. Due to this local and regional connectivity, in the unlikely event of an emergency, the project-adjacent roadway facilities would not adversely affect operations on the local or regional circulation system, and as such, would not influence the use of these facilities as emergency response routes. Therefore, impacts associated within an emergency response plan or emergency evacuation plan would be less than significant.

g) Would the project expose people or structures, either directly or indirectly, to a significant risk of loss, injury, or death involving wildland fires?

No Impact. According to Figure 12.5 of the County of Los Angeles General Plan Safety Element, the City of Carson and the project site are not located in a Fire Hazard Area (County of Los Angeles 2015). The project site is surrounded by existing development in an urbanized portion of the City away from any urban-wildland interface. Therefore, no impacts associated with wildland fire hazards would occur.

3.10 Hydrology and Water Quality

	Potentially Significant Impact	Less Than Significant Impact With Mitigation Incorporated	Less Than Significant Impact	No Impact
X. HYDROLOGY AND WATER QUALITY – Would the project:				
a) Violate any water quality standards or waste discharge requirements or otherwise substantially degrade surface or ground water quality?	☐	☐	☒	☐
b) Substantially decrease groundwater supplies or interfere substantially with groundwater recharge such that the project may impede sustainable groundwater management of the basin?	☐	☐	☒	☐
c) Substantially alter the existing drainage pattern of the site or area, including through the alteration of the course of a stream or river or through the addition of impervious surfaces, in a manner which would:				
i) result in substantial erosion or siltation on or off site;	☐	☐	☒	☐

	Potentially Significant Impact	Less Than Significant Impact With Mitigation Incorporated	Less Than Significant Impact	No Impact
ii) substantially increase the rate or amount of surface runoff in a manner which would result in flooding on or off site;	☐	☐	☒	☐
iii) create or contribute runoff water which would exceed the capacity of existing or planned stormwater drainage systems or provide substantial additional sources of polluted runoff; or	☐	☐	☒	☐
iv) impede or redirect flood flows?	☐	☐	☐	☒
d) In flood hazard, tsunami, or seiche zones, risk release of pollutants due to project inundation?	☐	☐	☐	☒
e) Conflict with or obstruct implementation of a water quality control plan or sustainable groundwater management plan?	☐	☐	☒	☐

a) Would the project violate any water quality standards or waste discharge requirements or otherwise substantially degrade surface or ground water quality?

Less Than Significant Impact. The project site is currently a paved surface on disturbed, previously developed land. Project construction would involve site preparation, some additional grading, and trenching, which may temporarily expose soils to increased erosion potential and result in downstream water quality issues. The project would be required to comply with the appliable provisions of Chapter 8, Stormwater and Urban Runoff Pollution Control, of the City's Municipal Code. The provisions of Chapter 8 require the deployment of various BMPs intended to minimize soil erosion and incidental spills of petroleum products and hazardous materials from equipment during construction (City of Carson 2020a).

Upon completion of construction, the surface of the project site would either be developed with impervious surfaces (i.e., buildings and associated improvements) or landscaping. Collectively, these project features would eliminate the potential for long-term soil erosion and associated downstream sedimentation of water bodies. Long-term stormwater runoff would similarly be completed in accordance with Chapter 8, Stormwater and Urban Runoff Pollution Control, of the City's Municipal Code, which requires structural BMPs designed to minimize polluted stormwater runoff. Therefore, water quality impacts would be less than significant.

b) Would the project substantially decrease groundwater supplies or interfere substantially with groundwater recharge such that the project may impede sustainable groundwater management of the basin?

Groundwater Supplies

Less Than Significant Impact. The project involves the construction of a 19-unit multifamily residential community, which would increase demand for water supply on the project site. The project site would receive its water supply from the Dominguez District of California Water Service (Cal Water). Based on the 2015 Urban Water Management Plan (UWMP), the Dominguez District receives its water from 17% groundwater, 15% recycled water, and 68% purchased water. Purchased water is delivered from four Metropolitan Water District distribution feeders (Cal Water 2016).

Cal Water uses local groundwater for the City from the West Coast Basin and the Central Basin. The Water Replenishment District of Southern California (WRD) plays a role in the overall water resource management in southern Los Angeles County. As a result of the WRD involvement, each party receiving water from these basins has an established allowable pumping allocation. The Dominguez District has an allowable pumping allocation of 6,480 acre-feet per year for the Central Basin, and 10,417 acre-feet per year for the West Coast Basin. The WRD is responsible for ensuring a reliable supply of high-quality groundwater.

Based on the 2015 potable water use in the Dominguez District, residential customers accounted for approximately 88% of water services, but only 37% of the use. In particular, multifamily services accounted for only 2.3% of water use (2,173 acre-feet) in the Dominguez District. Table 4-2 of the Cal Water UWMP indicated that by 2020, multifamily use demands would increase to 7.5% of water use, which would be 2,365 acre-feet. To address the increase in water demand, the 2015 UWMP identifies Cal Water's steps toward supporting the WRD with respect to managing groundwater. In addition, the Sustainability Groundwater Management Act provides financial and enforcement tools to ensure that existing and future development do not adversely impact groundwater supplies (Cal Water 2016). Consistent with these requirements, the project proposes water efficient landscaping with an estimated 33% reduction in the maximum allowable use for landscaping purposes.

The project would partially rely on groundwater supplies from the Central Basin and West Coast Basin. WRD actively manages water resources in the area to ensure that a reliable supply of groundwater is available. In addition, Cal Water recognizes the goals of WRD and legislation to protect groundwater supplies. Therefore, impacts associated with groundwater supplies would be less than significant.

Groundwater Recharge

Less Than Significant Impact. Under existing conditions, the project site is currently a paved surface on disturbed, previously developed land. Development of the project would involve construction of a 19-unit multifamily residential complex, which would not introduce greater impervious area, but rather would result in an increase of pervious area. The new landscaped areas and open space areas would allow for groundwater recharge. Therefore, impacts associated with groundwater recharge would be less than significant.

c) Would the project substantially alter the existing drainage pattern of the site or area, including through the alteration of the course of a stream or river or through the addition of impervious surfaces, in a manner which would:

i) result in substantial erosion or siltation on or off site;

Less Than Significant Impact. The existing site is paved and in a developed urban area with little to no vegetative cover. Construction of a 19-unit multifamily residential complex would increase pervious surfaces through installation of landscaping, resulting in decreased stormwater runoff. In addition, long-term stormwater runoff would similarly be completed in accordance with Chapter 8, Stormwater and Urban Runoff Pollution Control, of the City's Municipal Code, which requires structural BMPs designed to minimize stormwater runoff quantities and flow rates. As such, the project would not substantially alter the existing drainage pattern such that substantial erosion would occur on or off site. Therefore, impacts would be less than significant.

ii) substantially increase the rate or amount of surface runoff in a manner which would result in flooding on or off site;

Less Than Significant Impact. As discussed in Section 3.10(c)(i), with incorporation of landscaping into the project design and compliance with the City's municipal code, the project would not substantially alter the existing drainage patterns such that it would increase flooding on or off site. Impacts would be less than significant.

iii) create or contribute runoff water which would exceed the capacity of existing or planned stormwater drainage systems or provide substantial additional sources of polluted runoff; or

Less Than Significant Impact. As discussed in Section 3.10(c)(i), with incorporation of landscaping into the project design and compliance with the City's municipal code, the project would not substantially alter the existing drainage patterns such that it would increase runoff or provide additional sources of polluted runoff. Impacts would be less than significant.

iv) impede or redirect flood flows?

No Impact. The project site does not contain any streams or rivers having the potential to be altered by the project. The project site is fully developed and within a highly urbanized area. In addition, the project site is not located within a Federal Emergency Management Agency 100-year flood hazard zone (PWLAC 2021). Therefore, no impacts associated with impeding or redirecting flood flows would occur.

d) In flood hazard, tsunami, or seiche zones, would the project risk release of pollutants due to project inundation?

No Impact. The project would not be susceptible to flood hazards, tsunami, or seiche. Seiches are oscillations of enclosed bodies of water typically caused by ground shaking associated with a seismic event. However, the project site is not located near an enclosed body of water. Flooding from tsunami conditions is not expected, since the project site is located approximately 7 miles from the Pacific Ocean. In addition, the project site and immediate surrounding area is not located within a flood zone, thus the project would not risk release of pollutants due to inundation. Therefore, no impacts associated with seiche, tsunami, or flooding would occur.

e) Would the project conflict with or obstruct implementation of a water quality control plan or sustainable groundwater management plan?

Less Than Significant Impact. The project would comply with regional and local regulations related to water quality control plans, including the beneficial uses and water quality objectives of the Los Angeles Regional Water Quality Control Board Basin Plan. In addition, as discussed in Section 3.10(b), the project would be allocated water per the WRD and in compliance with Sustainability Groundwater Management Act. Therefore, impacts associated with conflict with a water quality control plan or sustainable groundwater management plan would be less than significant.

3.11 Land Use and Planning

	Potentially Significant Impact	Less Than Significant Impact With Mitigation Incorporated	Less Than Significant Impact	No Impact
XI. LAND USE AND PLANNING – Would the project:				
a) Physically divide an established community?	☐	☐	☐	☒
b) Cause a significant environmental impact due to a conflict with any land use plan, policy, or regulation adopted for the purpose of avoiding or mitigating an environmental effect?	☐	☐	☒	☐

a) Would the project physically divide an established community?

No Impact. The physical division of an established community typically refers to the construction of a linear feature (such as a major highway or railroad tracks) or removal or a means of access (such as a local road or bridge) that would impair mobility within an existing community or between a community and outlying area. Under the existing condition, the 0.52-acre project site is currently vacant. It is not used as a connection between established communities. Instead, connectivity within the area surrounding the project site is facilitated via local roadways and pedestrian sidewalks. Therefore, no impacts associated with physical division of an established community would occur.

b) Would the project cause a significant environmental impact due to a conflict with any land use plan, policy, or regulation adopted for the purpose of avoiding or mitigating an environmental effect?

Less Than Significant Impact. The approximately 0.52-acre project site is currently vacant, disturbed land with no existing structures. The project involves the construction of a 19-unit multifamily residential community with associated improvements. The General Plan land use designation for the project site is General Commercial, and the current zoning is CG (Commercial, General) (Figure 2-2). The project applicant has requested a General Plan amendment to change the land use designation from General Commercial to Urban residential, and a zone change for the CG lots to Carson Lofts Specific Plan (No. 23-2020).

Therefore, under the proposed project, the project site would be zoned Carson Lofts Specific Plan (No. 23-2020) with a land use designation of Urban Residential.

The analysis of land use consistency considers whether the project would cause a significant environmental impact due to a conflict with any applicable land use plan, policy, or regulations that are applicable to the project. The following analysis focuses on goals and policies related to the 2020 RTP/SCS, the City's Land Use Element, and the Zoning Ordinance, which are applicable to the project.

Connect SoCal: 2020 Regional Transportation Plan/Sustainable Communities Strategy (RTP/SCS)

The 2020 RTP/SCS was developed by SCAG and includes goals to balance mobility and housing needs for the region's current and future residents. The City of Carson is one of the many jurisdictions that fall under SCAG. Therefore, the following analysis discusses the project's consistency with applicable goals and policies of the RTP/SCS. Table 3.11-1 demonstrates how the project promotes consistency with the guiding principles and policies of the RTP/SCS.

Table 3.11-1. Consistency with Connect SoCal (RTP/SCS) Goals

Connect SoCal (RTP/SCS) Goal Number	Definition of Connect SoCal (RTP/SCS) Goal	Project Applicable Component (s)	Consistency Finding
Connect SoCal Goals			
Policy 1	Encourage regional economic prosperity and global competitiveness	The project would involve the construction of a 19-unit multifamily residential complex. The complex would allow for more housing options in the growing City of Carson, encouraging regional economic prosperity.	The project would be consistent with this policy.
Policy 9	Encourage development of diverse housing types in areas that are supported by multiple transportation options	The project would the construction of a 19-unit multifamily residential complex. The complex would add diversity in housing options for City of Carson residents.	The project would be consistent with this policy.

Source: SCAG 2020a

As shown on Table 3.11-1, the project would be consistent with applicable goals and policies identified in the 2020 RTP/SCS.

The City of Carson General Plan Land Use Element

The project site has a General Plan Land Use Element land use designation of General Commercial (City of Carson 2002). A General Plan amendment to change the land use designation to Urban Residential addresses the changing housing needs of the community, which is predicted in the SCAG Profile Report for the City of Carson. The project would directly induce population growth in the City and contribute to the desire for diverse housing types. The project would be considered consistent with the City's Land Use Element. Table 3.11-2 demonstrates how the project promotes consistency with the guiding principles and policies of the Land Use Element.

Table 3.11-2. Consistency with Land Use Element Goals and Policies

Stated Land Use Element Goal or Policy	Project Applicable Component (s)	Consistency Finding
A Balance of Uses		
A sustainable balance of residential and non-residential development and a balance of traffic circulation throughout the City.	The project site is currently vacant and designated for commercial. After approval, the project would be consistent with the City's land use designation and would maintain the expected sustainable balance between residential and non-residential development throughout the City.	The project would be consistent with this goal.
Monitor development trends in Carson to ensure that future development/redevelopment provides for the needs of the community.	The project would construct a 19-unit multifamily residential community along South Main Street. According to SCAG's 2020-2045 forecast, the City of Carson is expected to add approximately 11,600 people within this period (SCAG 2020b). Additionally, the General Plan Housing Element identifies a need for future housing development. Thus, the project would provide for the need of more housing to support the expected increase in residents.	The project would be consistent with this policy.
Achieve a sustainable land use balance through provision of incentives for desired uses; coordination of land uses and circulation patterns; and promotion of a variety of housing types and affordability.	The project involves the construction of a 19-unit multifamily residential community with associated improvements. If approved, the project site would be zoned for residential use and surrounded by single-family units; therefore, the project would provide the desired use and add to the variety of housing types.	The project would be consistent with this policy.
Coordinate strategies with the County, Southern California Association of Governments (SCAG), South Bay Cities Council of Governments (SBCCG), and other appropriate agencies and/or organizations to meet housing and employment needs.	The project falls in line with SBCCG's Livable Communities Program and encourage residential density to support walkable neighborhoods and establish supportive transportation investments and land use decisions. The project also coordinates with SCAG and the adopted 2020 RTP/SCS, which identifies a land use strategy that aims to plan for changing demand in housing types and supply. The project would construct a 19-unit multifamily residential community along South Main Street, which contributes to the need for more residential units, and increases housing type options for current and future residents. The County of Los Angeles Housing Element identifies the need to expand the range of housing types and provide adequate supply to meet the needs of current and future residents. Additionally, the project serves the City of Carson General Plan Housing Element strategy by utilizing an underserved area designated for residential use to create housing for current and future residents. Thus, the project aligns with strategies set by SCAG, SBCCG, City of Carson General Plan Housing Element, and County of Los Angeles Housing Element to meet local and regional housing needs.	The project would be consistent with this policy.

Table 3.11-2. Consistency with Land Use Element Goals and Policies

Stated Land Use Element Goal or Policy	Project Applicable Component (s)	Consistency Finding
Livable Communities		
Promote development in Carson, which reflects the "Livable Communities" concepts.	The project involves the utilization of an underdeveloped parcel through construction of a 19-unit multifamily residential community with associated improvements. The project site is currently designated for commercial uses and is surrounded by existing single-family residential units. The project would promote SBCCG's Livable Communities Program, which encourages residential density to support walkable neighborhoods, and establish supportive transportation investments and land use decisions.	The project would be consistent with this goal.
Encourage the location of housing, jobs, shopping, services and other activities within easy walking distance of each other.	The project would construct a 19-unit multifamily residential community along South Main Street. South Main Street connects City of Carson residents to other neighborhoods, jobs, shopping, and other activities. The project is located 0.1 miles away from Carson Park and 0.3 miles away from Carson Library. A small hub of retail stores and restaurants are located 0.3 miles from the site. The closest main grocery store is located 0.5 miles away. The site is also a 0.4-mile walking distance from Carson Street Elementary School. The project location provides residents with a sidewalk, which runs along South Main Street to Lucerne Street, as well as stop signs and streetlights located throughout the stretch of street.	The project would be consistent with this policy.
Maintain a diversity of housing types to enable citizens from a wide range of economic levels and age groups to live in Carson.	The project involves the construction of a 19-unit multi-family residential community with associated improvements. Single-family units currently surround the project site; therefore, the project would add to the diversity of housing types to enable citizens from a wide range of economic levels and age groups to live in Carson.	The project would be consistent with this policy.

Carson Zoning Ordinance

The City of Carson Zoning Ordinance (Chapter 9) of the Carson Municipal Code sets forth specific permitted land uses and development standards for zoning districts. According to the City of Carson Zoning District Map, the project site is zoned as General Commercial (City of Carson 2017). Table 3.11-3 demonstrates how the project would be consistent with the site's zoning.

Table 3.11-3. Consistency with Carson Municipal Code

CMC Article 9 Planning and Zoning	Regulation:	Project Applicable Component(s)	Consistency Finding
CMC 9121.1 Permitted Uses	Permitted Residential Uses include: single-family, mobile home, multiple-family, residential condominium, mobile home park, group quarters, boarding or rooming house, small family home community care facility, community residential care facility, single-room occupancy, supportive housing, and transitional housing.	The project involves the construction of a 19-unit multifamily residential community with associated improvements.	The project would be consistent with this purpose in the CMC with approval of requested zone change, General Plan Amendment, and Carson Lofts Specific Plan.
CMC 9113.3 Density Designations	Where a number appears on the zoning map in combination with the symbol for a residential zone, such number indicates the permitted density of development.	The entire project site is planned to be zoned as Carson Lofts Specific Plan (No. 23-2020). The project would construct a 19-unit multifamily residential community upon an approximately 0.52 acre-site. The maximum number of units allowed on the site would be 20 therefore, the project would not exceed maximum units allowed.	The project would be consistent with this purpose in the CMC.
CMC 9128.54 Development Standards	The Commission shall require, except as noted above, that all multiple-family dwellings conform to all ordinances of the City and all of the following multiple-family dwelling Development Standards.	The project would conform with the ordinances of the City and multiple-family dwelling Development Standards with respect to adequate private open space, length of and separation between buildings, landscaping requirements, recreational facilities, private storage space, off-street parking, and treatment of utilities.	The project would be consistent with this purpose in the CMC with approval of requested zone change, General Plan Amendment, and Carson Lofts Specific Plan.
CMC 9126.27 Space Between Buildings	The spacing between main residential buildings within multiple-family dwelling projects or residential condominium projects shall be at least ten (10) feet.	The project would have a distance of ten feet between each dwelling unit.	The project would be consistent with this purpose in the CMC.

Note:
CMC = Carson Municipal Code

As shown on Table 3.11-3, the project would be consistent with the zoning standards set forth in the Carson Municipal Code.

Summary

Based on consistency with the applicable goals and policies of the RTP/SCS, the City's Land Use Element, and the Zoning Ordinance, the project would not conflict with an applicable land use plan, policy, or regulation of an agency with jurisdiction over the project. Therefore, impacts associated with land use plans, policies, and regulations would be less than significant.

3.12 Mineral Resources

	Potentially Significant Impact	Less Than Significant Impact With Mitigation Incorporated	Less Than Significant Impact	No Impact
XII. MINERAL RESOURCES – Would the project:				
a) Result in the loss of availability of a known mineral resource that would be of value to the region and the residents of the state?	☐	☐	☐	☒
b) Result in the loss of availability of a locally-important mineral resource recovery site delineated on a local general plan, specific plan, or other land use plan?	☐	☐	☐	☒

a) Would the project result in the loss of availability of a known mineral resource that would be of value to the region and the residents of the state?

No Impact. The State Mining and Reclamation Act of 1975 (PRC Section 2710 et seq.) requires that the California State Geologist implement a mineral land classification system to identify and protect mineral resources of regional or statewide significance. According to maps obtained through the California Department of Conservation and California Geological Survey, the project site is within a Mineral Resource Zone 1 (MRZ-1) zone, which is defined as an area where adequate information indicated that no significant mineral deposits are present (DOC 1982). In addition, according to the City's General Plan EIR, there are no known mineral resources located within the City (City of Carson 2002). Therefore, no impacts associated with loss of availability of a known mineral resource would occur.

b) Would the project result in the loss of availability of a locally important mineral resource recovery site delineated on a local general plan, specific plan, or other land use plan?

No Impact. According to the City's General Plan EIR, no known significant mineral resources are located within the City (City of Carson 2002). No mineral extraction activities occur on or adjacent to the project site, and no known mineral resources are present on site. Therefore, no impacts associated with the loss of availability of a locally important mineral resource recovery site would occur.

3.13 Noise

	Potentially Significant Impact	Less Than Significant Impact With Mitigation Incorporated	Less Than Significant Impact	No Impact
XIII. NOISE – Would the project result in:				
a) Generation of a substantial temporary or permanent increase in ambient noise levels in the vicinity of the project in excess of standards established in the local general plan or noise ordinance, or applicable standards of other agencies?	☐	☒	☐	☐
b) Generation of excessive groundborne vibration or groundborne noise levels?	☐	☒	☐	☐
c) For a project located within the vicinity of a private airstrip or an airport land use plan or, where such a plan has not been adopted, within two miles of a public airport or public use airport, would the project expose people residing or working in the project area to excessive noise levels?	☐	☐	☐	☒

Existing Setting

Generally, federal and state agencies regulate mobile noise sources by establishing and enforcing noise standards on vehicle manufacturers. Local agencies generally regulate stationary noise sources and construction activities to protect neighboring land uses and the public's health and welfare. Noise-sensitive land uses include residences, hotels and motels, schools and universities, hospitals, and churches. The nearest noise-sensitive land uses to the project site consist of residences which surround the project site on the south, east, west, and northwest sides.

A brief background on the fundamentals of environmental acoustics is helpful in understanding how humans perceive various sound levels. Although extremely loud noises can cause temporary or permanent damage, the primary environmental impact of noise is annoyance. The objectionable characteristic of noise often refers to its loudness. Loudness represents the intensity of the sound wave, or the amplitude of the sound wave height measured in decibels (dB). Decibels are calculated on a logarithmic scale; thus, a 10 dB increase represents a 10-fold increase in acoustic energy or intensity, and a 20 dB increase represents a 100-fold increase in intensity. Decibels are the preferred measurement of environmental sound because of the direct relationship between a sound's intensity and the subjective "noisiness" of it. The A-weighted decibel (dBA) system is a convenient sound measurement technique that weights selected frequencies based on how well humans can perceive them.

The range of human hearing spans from the minimal threshold of hearing (approximately 0 dBA) to that level of noise that is past the threshold of pain (approximately 120 dBA). In general, human sound perception is such that a change in sound level of 3 dBA in a normal setting (i.e., outdoors or in a structure, but not in an acoustics laboratory without background noise levels) is just noticeable, and a change of 5 dBA is clearly noticeable. A change of 10 dBA is perceived as a doubling (or halving) of sound level. Noise levels are generally considered low when

they are below 45 dBA, moderate in the 45 to 60 dBA range, and high above 60 dBA. Noise levels greater than 85 dBA can cause temporary or permanent hearing loss if exposure is sustained.

Ambient environmental noise levels can be characterized by several different descriptors. Energy equivalent or energy average level (L_{eq}) describes the average or mean noise level over a specified period of time. L_{eq} provides a useful measure of the impact of fluctuating noise levels on sensitive receptors over a period of time. Other descriptors of noise incorporate a weighting system that accounts for human's susceptibility to noise irritations at night. Community Noise Equivalent Level (CNEL) is a measure of cumulative noise exposure over a 24-hour period, with a 5 dBA penalty added to evening hours (7 p.m. to 10 p.m.) and a 10 dBA penalty added to night hours (10 p.m. to 7 a.m.). Since CNEL is a 24-hour average noise level, an area could have sporadic loud noise levels above 65 dBA but that average lower over the 24-hour period.

Existing Noise Conditions

Currently, the project site consists of two vacant lots. An auto body shop is located at the project site's northern property boundary, and other commercial uses are located further to the north. Additionally, the project site and surrounding area is subject to traffic noise associated with adjacent roadways, including South Main Street, East 213th Street and Carson Street.

Noise measurements were conducted on and near the project site in March 2021[11] to characterize the existing noise environment. The daytime, short-term (1 hour or less) staff-attended sound-level measurements were taken with a Soft-DB Piccolo sound level meter equipped with a 0.5-inch, pre-polarized condenser microphone with pre-amplifier. The sound level meter meets the current American National Standards Institute standard for a Type 2 (General Purpose) sound level meter. The accuracy of the sound level meter was verified using a field calibrator before and after the measurements, and the measurements were conducted with the microphone positioned approximately five feet above the ground.

Four noise measurement locations (ST1–ST4) that represent sensitive receptors or sensitive land uses were selected on, adjacent to, or near the project site. The measurement locations are shown in Figure 3.13-1, Noise Measurement and Modeling Locations, and the measured average noise levels and measurement locations are provided in Table 3.13-1. Noise measurement data is also included in Appendix F, Noise. The primary noise sources at the measurement locations consisted of traffic along the adjacent roads. Secondary noise sources included distant barking dogs, distant industrial/commercial noise, distant conversations, and rustling leaves. As shown in Table 3.13-1, the existing daytime ambient noise levels ranged from approximately 67.8 dBA L_{eq} at ST1 to 69.9 dBA L_{eq} at ST2.

Table 3.13-1. Measured Noise Levels

Receptors	Location/Address	Date	Time	L_{eq} (dBA)	L_{max} (dBA)
ST1	21250 South Main Street (proposed project site; west of nearest existing residences)	March 9, 2021	9:56 a.m. – 10:11 a.m.	67.8	82.2

[11] It should be noted that the ambient noise measurements were conducted approximately 12 months into the COVID-19 pandemic. It should be noted, however, that the traffic volumes used for the traffic noise analysis reflect pre-COVID conditions. Assuming that traffic volumes during the noise measurements were lower as a result of the stay-at-home directives, this would result in a conservative estimate of Project-related construction and operational noise impacts, because the ambient noise measurements conducted during the assumed quieter time period are compared to estimated Project impacts independent of COVID-19 considerations.

Table 3.13-1. Measured Noise Levels

Receptors	Location/Address	Date	Time	L_{eq} (dBA)	L_{max} (dBA)
ST2	104 East 213th Street (Residential)	March 9, 2021	10:26 a.m. – 10:41 p.m.	69.9	86.8
ST3	21233 South Main Street (Residential)	March 9, 2021	10:50 a.m. – 11:05 a.m.	68.5	85.8
ST4	Carson Park (Recreational)	March 9, 2021	11:55 a.m. – 12:10 p.m.	68.2	85.7

Source: Appendix F
Note:
L_{eq} = equivalent continuous sound level (time-averaged sound level); dBA = A-weighted decibel; L_{max} = maximum sound level during the measurement interval.

Thresholds of Significance

City of Carson General Plan

Applicable policies and standards governing environmental noise in the City are contained in the City of Carson General Plan Noise Element (City of Carson 2004). The Noise Element specifies exterior noise levels up to 60 CNEL as normally acceptable and up to 65 CNEL as conditionally acceptable. Noise levels exceeding 65 CNEL are generally unacceptable for multiple family residential uses. Table 3.13-2 indicates standards regarding acceptable noise level limits for various land uses in the City.

Table 3.13-2. Noise Element Land Use Compatibility Matrix

Land Use Category	Community Noise Exposure (CNEL)			
	Normally Acceptable[1]	*Conditionally Acceptable*[2]	*Normally Unacceptable*[3]	*Clearly Unacceptable*[4]
Residential–Low Density	50–-60	60–65	65–75	75–85
Residential–Multiple Family	50–60	60–65	65–75	75–85
Transient Lodging–Motel, Hotels	50–65	65–70	70–80	80–85
Schools, Libraries, Churches, Hospitals, Nursing Homes	50–60	60–65	65–80	80–85
Amphitheater, Concert Hall, Auditorium, Meeting Hall	NA	50–65	NA	65–85
Sports Arenas, Outdoor Spectator Sports	NA	50–70	NA	70–85
Playgrounds, Neighborhood Parks	50–70	NA	70–75	75–85
Gold Courses, Riding Stables, Water Recreation, Cemeteries	50–70	NA	70–80	80–85
Office Buildings, Business Commercial and Professional	50–67.5	67.5–75	75–85	NA
Industrial, Manufacturing, Utilities, Agriculture	50–70	70–75	75–85	NA

Source: City of Carson 2004.
Notes: CNEL = Community Noise Equivalent Level; NA = Not Applicable.
1 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.
2 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 included in the design. Conventional construction, but with closed windows and fresh air supply systems or air conditioning will normally suffice.

[3] 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 included in the design.

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

Section 3.4 of the City's Noise Element identifies residences, public and private school/preschool classrooms, churches, hospitals, and elderly care facilities as noise-sensitive receptors. The maximum interior exposure for these land uses is 45 dBA CNEL, with a maximum exterior exposure of 65 dBA CNEL.

Carson Municipal Code

Section 4101 (Unnecessary Noises) of Chapter I, Article IV of the Carson Municipal Code prohibits any disturbing, excessive, or offensive noise that causes discomfort or annoyance to any reasonable person of normal sensitivity residing in the community. Sections 4101(i) and 4101(j) of the Carson Municipal Code regulate noise from demolition and construction activities. These sections dictate that non-emergency construction activity (including demolition), and repair work can only occur between 7:00 a.m. and 6:00 p.m., Monday through Friday.

The City's Noise Control Ordinance (Section 5500 of the Carson Municipal Code) sets standards for noise levels throughout the City that are applicable to radios, phonographs, loudspeakers and amplifiers, electric motors or engines, animals, motor vehicles, and construction equipment. The Noise Ordinance also sets maximum limits on interior and exterior noise levels for each noise zone, unless exempted, as shown in Table 3.13-3. In addition, when construction activities would have a duration greater than 21 days, Section 5502(c) of the Noise Control Ordinance requires that construction activities be conducted in such a manner to ensure that the noise level at an affected single-family residence does not exceed 65 dBA between 7:00 a.m. and 8:00 p.m. daily (except for Sundays and legal holidays when construction cannot occur), and 55 dBA between 8:00 p.m. and 7:00 a.m. on these same days.

Table 3.13-3. Noise Ordinance (Municipal Code) Standards

Noise Zone	Noise Zone Land Use (Receptor Property)	Time Interval	Exterior Noise Level (dBA)	Interior Noise Level (dBA)
I	Noise Sensitive Area	Anytime	45	NA
II	Residential Properties	10:00 p.m. to 7:00 a.m. (nighttime)	45	NA
		7:00 a.m. to 10:00 p.m. (daytime)	50	NA
III	Commercial Properties	10:00 p.m. to 7:00 a.m.	55	NA
		7:00 a.m. to 10:00 p.m.	60	NA
IV	Industrial Properties	Anytime	70	NA
All Zones	Multifamily	10:00 p.m. to 7:00 a.m.	NA	40
Open Space	Residential	7:00 a.m. to 10:00 p.m.	NA	50

Source: City of Carson 2004.
Notes: dBA = A-weighted decibel; NA = Not Applicable.

a) Would the project result in generation of a substantial temporary or permanent increase in ambient noise levels in the vicinity of the project in excess of standards established in the local general plan or noise ordinance, or applicable standards of other agencies?

Short-Term Construction Impacts

Less Than Significant Impact with Mitigation Incorporated. Construction of the project would generate noise that could expose nearby receptors to elevated noise levels that may disrupt communication and routine activities. The magnitude of the impact would depend on the type of construction activity, equipment, duration of the construction, distance between the noise source and receiver, and intervening structures. The following discussion addresses the noise levels calculated to result from construction of the project at nearby sensitive receptors (i.e., residences, recreational).

Construction – Equipment Inventory

CalEEMod was used to identify the construction equipment anticipated for development of the proposes project. Based on this information, CalEEMod identified the anticipated equipment for each phase of project construction, listed in Table 3.13-4.

Construction Noise – Assessment

With the construction equipment noise sources identified in Table 3.13-4, a noise analysis was performed using the Federal Highway Administration's Roadway Construction Noise Model (RCNM) (FHWA 2008). Input variables for RCNM consist of the receiver/land use types, the equipment type (e.g., backhoe, crane, truck), the number of equipment pieces, the duty cycle for each piece of equipment (i.e., percentage of time the equipment typically works in a given time period), and the distance from the noise-sensitive receiver to the construction zone. The RCNM has default duty cycle values for the various pieces of equipment, which were derived from an extensive study of typical construction activity patterns. Those default duty cycle values were utilized for this analysis. No topographical or structural shielding was assumed in the modeling of construction noise. Refer to Appendix F for the inputs used in the RCNM model and the results.

Noise-sensitive land uses (residences) exist to the east of the project site, as well as to the south (south of East 213th Street) and to the west (west of South Main Street). Additionally, a recreational land use (Carson Park) is located approximately 400 feet to the south. The closest noise-sensitive receivers consist of single-family residences located within 20 feet of the project site. A 20-foot distance between the receptor and the nearest construction activity was assumed to provide a worst-case noise scenario for equipment working on the eastern side of the project site. However, the above distance separation assumption would not be representative of typical construction noise, because construction activities would not usually take place at the nearest or the farthest portions of the project site, but somewhere in between. Thus, to provide information on typical construction noise levels, the distance from the nearest receivers to the project's acoustic center was also analyzed. The acoustic center represents the idealized point from which the energy sum of all construction activity noise, near and far, would be centered. The acoustic center is derived by taking the square root of the product of the nearest and the farthest distances. For this project, the acoustic center was found to be approximately 75 feet from the nearest noise-sensitive receivers. Given the size of the project site and the relatively equal distribution of proposed development across the property, noise levels derived from the acoustic center of construction activity provide a better representation of typical

noise level exposure across the entire construction process for a given off-site receiver compared to using the minimum distance worst-case method.

Table 3.13-4. Construction Equipment by Phase

Construction Phase	Equipment	Quantity	Usage Hours
Site Preparation	Grader	1	8
	Tractors/loaders/backhoes	1	8
Grading	Concrete Saw	1	8
	Rubber-tired dozers	1	1
	Tractor/loader/backhoe	2	6
Building Construction	Crane	1	4
	Forklift	2	6
	Tractor/loader/backhoe	2	8
Paving	Cement and mortar mixers	4	6
	Pavers	1	7
	Rollers	1	7
	Tractor/loader/backhoe	1	7
Architectural Coating	Air compressors	1	4

Source: CalEEMod.2016.3.2

The City's Noise Ordinance contains a construction noise restriction that pertains specifically to single-family residences. Where construction would have a duration greater than 21 days, construction noise levels are restricted to 65 dBA L_{eq} during the daytime at any single-family residence in the proximity of the construction effort (Section 5500 of the Carson Municipal Code). As previously stated, single-family residences exist to the west, east, and south of the project site.

The results of the construction noise analysis using the RCNM are summarized in Table 3.13-5 (refer to Appendix F for complete results). As shown, the highest noise levels from construction are predicted to range from approximately 79 dBA L_{eq} (during the architectural coatings phase) to 91 dBA L_{eq} (during the grading phase) at the nearest adjacent noise-sensitive receivers (i.e., single-family residences located 20 feet from the closest point of construction). These noise levels would be substantially higher than ambient noise levels in the area and would be considered annoying or disruptive for daily activities at the closest off-site receptors (i.e., 20 feet away).

This maximum noise level is considered to be a peak exposure, applicable not more than 10% to 15% of the total construction period and only while the construction activity is taking place in one location at a distance of 20 feet from any of the off-site receivers. The more typical construction noise levels (for construction taking place at a range of locations on site and modeled at the acoustical center for analysis purposes) range from approximately 68 dBA L_{eq} (during architectural coatings) to approximately 81 dBA L_{eq} (during grading) (see Table 3.13-5). The average noise levels (based on the acoustic center) are considered a better representation of the overall noise exposure experience for the closest adjacent receivers near the project site for periods of time greater than 21 days, and over the duration of each construction phase. These average construction noise levels would still be considerably greater than ambient noise levels in the project vicinity, likely resulting in annoyance. Based upon this analysis, noise levels for all construction phases would exceed the allowable 65 dBA L_{eq} limit at the closest single-family residences. Therefore,

mitigation would be required to avoid a potentially significant short-term construction noise impact at the single-family residences closest to the project site.

Table 3.13-5. Construction Noise Analysis Summary

Construction Phase	Construction Noise at Representative Receiver Distances (L_{eq}(dBA))	
	Nearest Construction Work (Approximately 20 Feet Away)	*Typical Construction Work (Approximately 75 Feet Away)*
Site Preparation	89	79
Grading	91	81
Building Construction	83	79
Paving	88	78
Architectural Coating	79	68

Source: Appendix F
Note: L_{eq} = equivalent continuous sound level (time-averaged sound level); dBA = A-weighted decibel.

Consistent with MM-NOI-1, the applicant would be required to provide a sound barrier wall to reduce construction noise impacts to sensitive receptors. In accordance with MM-NOI-1, the applicant would either construct a minimum 8-foot-tall concrete masonry unit wall or provide a temporary construction sound barrier wall prior to building construction. Both the concrete masonry unit wall and the temporary construction sound barrier would effectively reduce sound transmission by blocking direct line-of-sight between the on-site construction activities and the project-adjacent residences' windows. It is estimated that a noise barrier of the prescribed density would reduce average noise levels to sensitive receptors by approximately 8 dBA or more by blocking direct line of sight to ground-level receptors.

Additionally, construction activities would be required to comply with MM-NOI-2 through MM-NOI-6, which require the project to implement a series of feasible construction BMPs to minimize construction noise levels at the nearest sensitive receptors to acceptable levels of significance.

MM-NOI-1 Prior to building construction, the applicant will provide a temporary construction sound barrier wall to reduce construction-related noise to nearby sensitive receptors:

A temporary plywood barrier shall be installed to extend the top elevation of the existing, permanent 6-foot-tall masonry wall along the project's east perimeter to a minimum height of 8 feet. Additionally, a temporary construction sound barrier wall of not less than 8 feet in height shall be installed along the project's west and south perimeters. Entry gates for construction vehicles shall be closed when vehicles are not entering or exiting the site. The barrier shall be made of sound-attenuating material (not landscaping). To effectively reduce sound transmission through the barrier, the material chosen must be rigid and sufficiently dense (at least 20 kilograms per square meter). All noise barrier material types are equally effective, acoustically, if they have this density. For example, 5/8-inch plywood, mounted with no gaps between adjacent sheets, would be of sufficient density to achieve the target attenuation. The west and south perimeter barriers shall be 8 feet in height from the ground surface on the construction side of the wall to achieve the goal of blocking direct line-of-sight to the adjacent residence windows.

MM-NOI-2 At least 20 days prior to commencement of construction, the contractor shall provide written notice to all residential property owners and tenants within 300 feet of the project site that proposed construction activities could affect outdoor or indoor living areas. The notice shall contain a description of the project, a construction schedule including days and hours of construction, and a description of noise-reduction measures.

MM-NOI-3 Noise-generating construction activities (which may include preparation for construction work) shall be permitted weekdays between 7:00 a.m. and 6:00 p.m., excluding Sundays and federal holidays. When a holiday falls on a Saturday or Sunday, the preceding Friday or following Monday, respectively, shall be observed as a legal holiday.

MM-NOI-4 Stationary construction equipment that generates noise that exceeds 85 dBA at the property boundaries shall be shielded with a barrier that meets a Sound Transmission Class rating of 25.

MM-NOI-5 All construction equipment powered by internal combustion engines shall be properly muffled and maintained. No internal combustion engine shall be operated on the site without a muffler. All diesel equipment shall be operated with closed engine doors and shall be equipped with factory recommended mufflers. Unnecessary idling of internal combustion engines shall be prohibited.

MM-NOI-6 Air compressors and generators used for construction shall be surrounded by temporary acoustical shelters. Whenever feasible, electrical power shall be used to run air compressors and similar power tools.

The above mitigation measures would reduce construction noise levels at the nearest single-family residences to be in compliance with the City's Noise Ordinance limit of 65 dBA L_{eq} during daytime hours. Therefore, with implementation of mitigation, short-term construction noise impacts would be less than significant.

Long-Term Operational Impacts

Off-Site Traffic Noise Impacts

Less Than Significant Impact. The adjacent Main Street and East 213th Street would be the primary traffic noise source at the project site. Based upon information from Dudek transportation specialists, Main Street between Clarion Drive and East 213th Street currently carries approximately 18,980 average daily traffic (ADT) trips; East 213th Street carries approximately 6,830 ADT. With inclusion of the proposed project, Main Street between Clarion Drive and East 213th Street is estimated to carry approximately 19,032 ADT; East 213th Street is estimated to carry approximately 6,882 ADT. The project would increase the number of vehicles along Main Street between Clarion Drive and East 213th Street by approximately 52 on an ADT basis; similarly, East 213th Street would increase the ADT by approximately 52.

Potential noise effects from vehicular traffic were assessed using the Federal Highway Administration's Traffic Noise Model Version 2.5 (FHWA 2004). Information used in the model included the Existing and Existing plus Project traffic volumes. Noise levels were modeled at representative noise-sensitive receivers. The receivers were modeled to be 5 feet above the local ground elevation. The four receiver locations used

for the noise measurements were used to represent existing off-site noise-sensitive land uses (i.e., residences and community park). Receivers ST1 through ST3 were used to represent the existing off-site residences near the project site; additionally, receiver ST4 was used to represent the existing open-space recreation area. The measured and modeled receiver locations are shown in Figure 3.13-1.

The information provided from this modeling, along with the results from ambient noise survey measurements, was compared to the noise impact significance criteria to assess whether project-related traffic noise would cause a significant impact and, if so, where these impacts would occur. The results of the comparisons for the off-site noise-sensitive land uses are presented in Table 3.13-6. The input and output files for the Traffic Noise Model are provided in Appendix F.

Table 3.13-6. Summary of Off-Site Existing and Existing plus Project Unmitigated Traffic Noise Levels (dBA CNEL)

Modeled Receptor	Roadway Segment	Existing	Existing plus Project	Maximum Project-Related Noise Level Increase (dB)
ST1 – Residences adjacent to project site	Main Street, between Clarion Drive and East 213th Street	65	53	0
ST2 – Residences south of project site	Main Street, between Clarion Drive and East 213th Street; East 213th Street, east of Main Street	70	70	0
ST3 – Residences northeast of project site	Main Street, between Clarion Drive and East 213th Street	68	68	0
ST4 – Recreational space south of project site	Main Street, south of East 213th Street	67	67	0

Source: Appendix F
Note: dBA = A-weighted decibel; CNEL = Community Noise Equivalent Level; dB = decibel.
Traffic noise levels are rounded to the nearest whole numbers. Existing plus Project traffic noise levels at ST1 accounts for noise reduction shielding provided by the proposed project.

As Table 3.13-6 shows, the project would increase the noise level along the Main Street and East 213th Street (the roads from which all project-related traffic would take access) by 0 dBA[12] (when rounded to whole numbers). A change (either an increase or a decrease) of 1 dB or less is not an audible change in the context of community noise (i.e., outside of a controlled test environment). In addition, the project would not cause noise levels to exceed applicable City noise standards. The project is not anticipated to result in significant traffic noise increases or cause an exceedance of applicable traffic noise standards. Therefore, impacts associated with off-site traffic noise would be less than significant.

[12] It should be noted that the ambient noise measurements were conducted approximately 12 months into the COVID-19 pandemic. It should be noted, however, that the traffic volumes used for the traffic noise analysis reflect pre-COVID conditions. Assuming that traffic volumes during the noise measurements were lower as a result of the stay-at-home directives, this would result in a conservative estimate of Project-related construction and operational noise impacts, because the ambient noise measurements conducted during the assumed quieter time period are compared to estimated Project impacts independent of COVID-19 considerations.

On-Site Traffic Noise Impacts

Less Than Significant Impact. Based on the project design, the future exterior noise level from Existing plus Project traffic at representative exterior use areas was calculated using Traffic Noise Model Version 2.5 (refer to Appendix F). The future on-site traffic-related noise levels on the project site are presented in Table 3.13-7.

Table 3.13-7. Summary of On-Site Existing plus Project Unmitigated Traffic Noise Levels (dBA CNEL)

Modeled Receptor	Roadway Segment	Existing plus Project
MSA1 – Proposed residences, first floor; westerly side of project site	Main Street, between Clarion Drive and East 213th Street	71
MSA2 – Proposed residences, second floor; westerly side of project site	Main Street, between Clarion Drive and East 213th Street	71
MSA3 – Proposed residences, third floor; westerly side of project site	Main Street, between Clarion Drive and East 213th Street	70

Source: Appendix F
Note: Traffic noise levels are rounded to the nearest whole numbers.

As shown in Table 3.13-7, the results of the noise modeling indicate that on-site noise levels would range from approximately 70 dBA CNEL (at receiver MSA3) to 71 dBA CNEL (at receivers MSA1 and MSA2). Traffic noise levels would exceed the City's exterior noise compatibility standard of 65 dBA CNEL. However, there are no proposed exterior uses with direct exposure to the active roadways. Therefore, exterior noise impacts associated with on-site traffic noise would be less than significant.

On-Site Interior Noise

Less Than Significant Impact With Mitigation Incorporated. The City and the state require that interior noise levels not exceed a CNEL or day/night average sound level (L_{dn}) of 45 dBA within the habitable rooms of residences. Typically, with the windows open, building shells provide approximately 15 dB of noise reduction. Therefore, rooms exposed to an exterior greater than 60 dBA L_{dn}/CNEL could result in an interior L_{dn}/CNEL greater than 45 dB. The state building code recognizes this relationship and, therefore, requires interior noise studies when the exterior noise level is projected to exceed 60 dBA L_{dn} or CNEL.

The data shown in Table 3.13-7 indicates that the future on-site noise levels would exceed 60 dBA CNEL at the facades of the proposed residences fronting on Main Street. Thus, unmitigated interior noise levels within the habitable rooms of these dwelling units could exceed the 45 dBA CNEL or L_{dn} noise criterion, and as such, MM-NOI-7 is required. With the incorporation of MM-NOI-7, impacts associated with interior noise standards would be less than significant.

MM-NOI-7 Exterior-to-Interior Noise Level Limit: Interior noise levels within the project's dwelling units shall not exceed 45 community noise equivalent level (CNEL).

An acoustical analysis report, prepared by an acoustical engineer, shall be submitted describing the acoustical design features of the structure that will satisfy the interior noise standard as part of the building plan check. Once specific building plan information is available, additional exterior-to-interior acoustical analysis shall be conducted for the residences facing both S Main Street and E 213th Street where exterior noise levels are expected to exceed 60 CNEL to demonstrate that

interior levels will not exceed 45 CNEL. The information in the analysis shall include wall heights and lengths, room volumes, window and door tables typical for a building plan, as well as information on any other openings in the building shell. With this specific building plan information, the analysis shall determine the predicted interior noise levels at the planned on-site buildings. If predicted noise levels are found to be in excess of 45 CNEL, the report shall identify architectural materials or techniques that could be included to reduce noise levels to 45 CNEL in habitable rooms. Standard measures such as glazing with appropriate Sound Transmission Class (STC) ratings should be considered. The residential units shall be constructed in compliance with all noise attenuation measures required by the report.

In addition, appropriate means of air circulation and provision of fresh air shall be provided to allow windows to remain closed for extended intervals of time so that acceptable interior noise levels can be maintained. The mechanical ventilation system shall meet the criteria of The International Building Code (Chapter 12, Section 1203.3 of the 2001 California Building Code).

With the implementation of MM-NOI-7, impacts associated with interior noise impacts would be less than significant.

b) Would the project result in generation of excessive groundborne vibration or groundborne noise levels?

Less Than Significant Impact With Mitigation Incorporated. Construction activities that might expose persons to excessive groundborne vibration or ground-borne noise could cause a potentially significant impact. Groundborne vibration information related to construction activities (including demolition) has been collected by Caltrans (Caltrans 2020). Information from Caltrans indicates that continuous vibrations with a peak particle velocity of approximately 0.1 inches per second begin to annoy people. The heavier pieces of construction equipment, such as bulldozers, would have peak particle velocities of approximately 0.089 inches per second or less at a distance of 25 feet (DOT 2018). Groundborne vibration is typically attenuated over short distances. At the distance from the nearest vibration-sensitive receivers (the adjacent residences to the east) to where construction activity would be occurring on the project site (approximately 20 feet), and with the anticipated construction equipment, the peak particle velocity vibration level would be approximately 0.124 inches per second. At the closest sensitive receptors, vibration levels could temporarily exceed the vibration threshold of potential annoyance of 0.1 inches per second; however, these vibration impacts would only occur intermittently during the relatively brief periods of time when heavy equipment is operating in proximity to the nearest project boundaries. With implementation of MM-NOI-2, in which nearby residences would be notified of the project work, impacts associated with vibration-generated annoyance would be less than significant.

The major concern with regards to construction vibration is related to building damage, which typically occurs at vibration levels of 0.5 inches per second or greater for buildings of reinforced-concrete, steel or timber construction. As discussed above, the highest anticipated vibration levels associated with on-site project construction would be approximately 0.124 inches per second, which are well below the threshold of 0.5 inches per second for building damage. Therefore, impacts associated with vibration-produced damage would be less than significant.

c) For a project located within the vicinity of a private airstrip or an airport land use plan or, where such a plan has not been adopted, within two miles of a public airport or public use airport, would the project expose people residing or working in the project area to excessive noise levels?

No Impact. The project site is not located within the vicinity of private airstrip. Additionally, the closest public airports to the project site are the Torrance Municipal Airport, which is located approximately 4 miles southwest of the project site, and Compton/Woodley Airport, which is located approximately 4.3 miles northeast of the project site. According to the Los Angeles County Airport Land Use Commission, the project is not located within the airport land use plans for these nearby airports. In addition, the Noise Contour Map provides the 65 CNEL contours of the nearby airports, which are located more than 4 miles from the project site (ALUC 2019). Therefore, no impacts associated with airport and aircraft noise would occur.

3.14 Population and Housing

	Potentially Significant Impact	Less Than Significant Impact With Mitigation Incorporated	Less Than Significant Impact	No Impact
XIV. POPULATION AND HOUSING – Would the project:				
a) Induce substantial unplanned population growth in an area, either directly (for example, by proposing new homes and businesses) or indirectly (for example, through extension of roads or other infrastructure)?	☐	☐	☒	☐
b) Displace substantial numbers of existing people or housing, necessitating the construction of replacement housing elsewhere?	☐	☐	☐	☒

a) Would the project induce substantial unplanned population growth in an area, either directly (for example, by proposing new homes and businesses) or indirectly (for example, through extension of roads or other infrastructure)?

Less Than Significant Impact. According to SCAG's 2020–2045 RTP/SCS growth forecast, the City is projected to add approximately 11,600 people, 5,200 households, and 6,600 jobs in the future, based on regional demographic and economic assumptions (SCAG 2020b). Specifically, SCAG's forecast indicated the population will increase from the 2016 population of 93,600 to the projected 2045 population of 105,200 (an increase of 12%).

The project would directly induce population growth in the City by constructing a 19-unit multifamily residential community on a property that is currently zoned for general commercial uses. According to SCAG, the average household size in the City is 3.6 persons (SCAG 2019). Using this factor of 3.6 persons per household, the project could support a residential population of approximately 69 persons. By comparison to SCAG's growth forecast, the project's 69 additional residents would represent less than 1%

of the projected growth in the City. As such, the project's direct population growth does not constitute a substantial unplanned population growth within the City.

According to Table 28 in the City's General Plan Housing Element, the total regional housing need is 1,698 housing units. In addition, the City addresses the importance of identifying sites for future housing development (City of Carson 2013). Since the project is not currently developed with any residential structures, the project would assist the City in fulfilling its housing needs (as determined by SCAG). As such, direct impacts to population growth would be less than significant. Therefore, impacts related to substantial population growth would be less than significant.

b) Would the project displace substantial numbers of existing people or housing, necessitating the construction of replacement housing elsewhere?

No Impact. Given that no residential uses are located on the project site, the project would not displace existing housing, nor would it impede future residential development potential. Therefore, no impacts associated with the displacement of people or housing would occur.

3.15 Public Services

	Potentially Significant Impact	Less Than Significant Impact With Mitigation Incorporated	Less Than Significant Impact	No Impact
XV. PUBLIC SERVICES				
a) Would the project result in substantial adverse physical impacts associated with the provision of new or physically altered governmental facilities, need for new or physically altered governmental facilities, the construction of which could cause significant environmental impacts, in order to maintain acceptable service ratios, response times, or other performance objectives for any of the public services:				
Fire protection?	☐	☐	☒	☐
Police protection?	☐	☐	☒	☐
Schools?	☐	☐	☒	☐
Parks?	☐	☐	☒	☐
Other public facilities?	☐	☐	☒	☐

a) Would the project result in substantial adverse physical impacts associated with the provision of new or physically altered governmental facilities, need for new or physically altered governmental facilities, the construction of which could cause significant environmental impacts, in order to maintain acceptable service ratios, response times, or other performance objectives for any of the public services:

Fire protection?

Less Than Significant Impact. The Los Angeles County Fire Department (LACoFD) provides fire protection services to the City. There are six primary fire stations that provide fire and emergency medical services to the City. Four of the stations are located within the City's boundaries. The Fire Prevention Office is located at the Carson City Hall (701 East Carson Street), which is located approximately 1.4 miles east of the project

site. The nearest fire station is the LACoFD Station 36 (127 West 223rd Street), located approximately 0.9 miles south of the project site via local roads.

Based on the proximity of the project site to the existing LACoFD facilities, and since the project site is located in a developed part of the City that is already within the service area of LACoFD, it is anticipated that the project could be served by LACoFD without adversely affecting personnel-to-resident ratios, response times, or other performance objectives. Therefore, impacts associated with the need for new or expanded LACoFD facilities would be less than significant.

Police protection?

Less Than Significant Impact. The Los Angeles County Sheriff's Department contracts with the City to provide police protection services. Los Angeles County Sheriff's Department staff has indicated an officer-to-population ratio of 1 officer to every 1,000 residents is the desired level of service (County of Los Angeles 2014). The Carson Sheriff's Station is located at 21356 South Avalon Boulevard, approximately 1.1 miles east of the project site.

Based on the proximity of the project site to the existing Carson Sheriff's Station, and since the project site is located in a developed part of the City that is within the service area of the Carson Sheriff's Station, it is anticipated that the project could be served without adversely affecting personnel-to-resident ratios, response times, or other performance objectives. Therefore, impacts associated with the need for new or expanded Los Angeles County Sheriff's Department would be less than significant.

Schools?

Less Than Significant Impact. The Los Angeles Unified School District (LAUSD) and the Compton Unified School serve the City. The Compton Unified School District has one elementary school, one middle school, and one high school serving the City. LAUSD has fourteen elementary schools, five middle schools, and six high schools that serve the project area. The project site is located within LAUSD, Board District 7, and the assigned resident schools are Carson Street Elementary School (grades K-5), Andrew Carnegie Middle School (grades 6–8), and Carson Senior High School (grades 9–12) (LAUSD 2021).

LAUSD would serve students in grades kindergarten through 12th grade who would reside on the project site. According to the California Department of Education, during the 2019/2020 school year, Carson Street Elementary School has 684 students enrolled, Andrew Carnegie Middle School had 729 students enrolled, and Carson Senior High School had 1,496 students enrolled (CDE 2021). The City's General Plan EIR indicates that these schools have an operating capacity of 1,024 students, 2,228 students, and 3,600 students, respectively (City of Carson 2002). As such, these schools are expected to have existing capacity and facilities for additional student enrollment.

Using the student generation rates used in the City's General Plan EIR (City of Carson 2002), high-density residential uses generate 0.178 elementary school students, 0.083 middle school students, and 0.081 high school students per unit. At 19 dwelling units, the project could generate approximately 4 elementary school students, 2 middle school students, and 2 high school students. Because LAUSD has existing capacity, it is assumed that the schools serving the project would have the facilities to accept what equates to a nominal increase in students generated by the project.

Nonetheless, the project would be subject to SB 50, which requires the payment of mandatory impact fees to offset any impact to school facilities. In accordance with SB 50, the project applicant would pay its fair share of school impact fees based on the number of proposed dwelling units and square footage per Government Code Section 65995(h). Therefore, impacts associated with the need for new or expanded LAUSD facilities would be less than significant.

Parks?

Less Than Significant Impact. The project would include 19 residential units that would house approximately 69 residents. At least a portion of these residents are anticipated to patronize the various public parks and recreation facilities located in proximity to the project site. The closest parks to the project site are Carson Park and Veterans Park. The 11-acre Carson Park, which is located approximately 0.1 miles to the south, provides a range of passive and active recreational amenities, including two lighted ball diamonds, a swimming pool, a play area, two multipurpose game courts, a restroom/snack-bar building, a multipurpose building, and a picnic area. Additionally, the 12-acre Veterans Park, which is located approximately 1.3 miles to the south, provides two baseball fields, two tennis courts, basketball courts, a skate park, two multipurpose rooms, an amphitheater and a picnic area.

The project would be subject to the City's Interim Development Impact Fee Program, which requires new development projects to pay impact fees, which would support park improvements as well as fund capital costs for other new and existing infrastructures. Pursuant to the Interim Development Impact Fee Program, the property owner/developer would pay its fair share of impact fees based on the fee category and adopted Interim Development Impact Fee Program rates (City of Carson 2020b).

In addition, the project would include common open space areas, which would consist of a central community space with a variety of recreational amenities, as well as multiple common landscape areas throughout the project site. These on-site amenities would provide an alternative to off-site public parks and recreational facilities, allowing the project's residents to recreate on the project site while incrementally reducing impacts to off-site public parks and recreational facilities. Therefore, impacts associated with the need for new or expanded park facilities would be less than significant.

Other public facilities?

Less Than Significant Impact. It is reasonable to assume that at least a portion of the approximately 69 residents generated by the project would patronize public facilities, such as local library branches, operated by the County of Los Angeles Public Library System, which serves the City. The Carson Library is located at 151 East Carson Street, approximately 0.5 miles south of the project site. The service area for the library has a population of 100,980 and the library has a collection of 216,146 library materials, such as books, audio materials, periodicals, and government documents. In addition, the Dr. Martin Luther King, Jr. Library is located at 17906 South Avalon Boulevard, approximately 3 miles northeast of the project site (City of Carson 2002).

According to the City's General Plan EIR, the libraries are underserved in terms of facility size and library materials (City of Carson 2002). However, the project would add approximately 69 residents, which represents approximately 0.001% of the existing 92,079 City residents that are served by the library system (U.S. Census Bureau 2019). This nominal increase in library patrons is not expected to significantly influence the County of Los Angeles Public Library System's ability to serve users compared to existing conditions. Therefore, impacts associated with the need for new or expanded libraries and other public facilities would be less than significant.

3.16 Recreation

	Potentially Significant Impact	Less Than Significant Impact With Mitigation Incorporated	Less Than Significant Impact	No Impact
XVI. RECREATION				
a) Would the project increase the use of existing neighborhood and regional parks or other recreational facilities such that substantial physical deterioration of the facility would occur or be accelerated?	☐	☐	☒	☐
b) Does the project include recreational facilities or require the construction or expansion of recreational facilities which might have an adverse physical effect on the environment?	☐	☐	☒	☐

a) Would the project increase the use of existing neighborhood and regional parks or other recreational facilities such that substantial physical deterioration of the facility would occur or be accelerated?

Less Than Significant Impact. The project would include a 19-unit multifamily residential community that would house approximately 69 residents. At least a portion of these residents are anticipated to patronize various public parks and recreational facilities located in proximity to the project site. The project would be subject to development impact fees, which would support park improvements as well as fund capital costs for other new and existing infrastructures.

In addition, the project would include common open space areas, which would consist of a central community space with a variety of recreational amenities, as well as multiple common landscape areas throughout the project site. These on-site amenities would provide an alternative to off-site public parks and recreational facilities, allowing the project's residents to recreate on the project site while incrementally reducing impacts to off-site public parks and recreational facilities. Therefore, impacts associated with the increased use of existing recreational facilities would be less than significant.

b) Does the project include recreational facilities or require the construction or expansion of recreational facilities, which might have an adverse physical effect on the environment?

Less Than Significant Impact. The project would include common open space areas throughout the site. These areas would include seating, barbeques, and open play areas. Collectively, the proposed project would provide residents with over 4,350 square feet of common open space.

These on-site amenities would be within the project site and are part of the project. Any potential environmental impacts related to the construction and operation of these on-site recreational amenities are already accounted for in this IS/MND as part of the impact assessment conducted for the entirety of the project. No adverse physical impacts beyond those already disclosed in this document would occur as

a result of implementation of the project's on-site recreational facilities. Therefore, impacts associated with the construction or expansion of recreational facilities would be less than significant.

3.17 Transportation

	Potentially Significant Impact	Less Than Significant Impact With Mitigation Incorporated	Less Than Significant Impact	No Impact
XVII. TRANSPORTATION – Would the project:				
a) Conflict with a program, plan, ordinance, or policy addressing the circulation system, including transit, roadway, bicycle, and pedestrian facilities?	☐	☐	☐	☒
b) Conflict or be inconsistent with CEQA Guidelines section 15064.3, subdivision (b)?	☐	☐	☒	☐
c) Substantially increase hazards due to a geometric design feature (e.g., sharp curves or dangerous intersections) or incompatible uses (e.g., farm equipment)?	☐	☐	☐	☒
d) Result in inadequate emergency access?	☐	☐	☐	☒

a) Would the project conflict with a program, plan, ordinance, or policy addressing the circulation system, including transit, roadway, bicycle, and pedestrian facilities?

No Impact. The project would not conflict with applicable programs, plans, ordinances, or policies addressing the circulation system. A summary of the relevant programs, plans, and policies, and associated impact analysis is provided below. This includes the Congestion Management Program, the City of Carson Transportation and Infrastructure Element, Carson 2040, the City of Carson Master Plan of Bikeways, as well as the existing and planned transit services in the study area.

Congestion Management Program

The Los Angeles County Metropolitan Transportation Authority (Metro) is the designated Congestion Management Agency and responsible for implementing the Congestion Management Program (CMP) for Los Angeles County and the 89 local jurisdictions in the region, including the City of Carson. In 2018, Metro's Board approved to opt out of the state's CMP program. The CMP primarily uses the level of service performance metric and key state laws and rulemaking, namely AB 32 (California Global Warming Solutions Act of 2006), SB 375 (Sustainable Communities and Climate Protection Act of 2008), SB 743 (Environmental quality), and SB 32 (California Global Warming Solutions Act of 2006), all move away from level of service directly or indirectly and toward other metrics such as VMT. Therefore, the CMP contradicts these policies and Metro's own efforts to promote a more sustainable and equitable region. As stated in the June 25, 2019, Congestion Management Program Opt-Out Status Report, the decision to opt out of the CMP is not a unilateral decision made by Metro but a collective, majority decision of Metro and all 89 local

jurisdictions in Los Angeles County (LA Metro 2019). The opt out of the CMP applies to Metro and all Los Angeles County local jurisdictions including the City of Carson.

City of Carson Transportation and Infrastructure Element

The Transportation and Infrastructure Element of the General Plan (City of Carson 2004) was last updated in 2004 and outlines transportation and infrastructure policies and describes the future circulation system needed to support the Land Use Element. The following goals within the Transportation and Infrastructure Element are applicable to the project:

- **TI-2**: Provide a sustainable, safe, convenient, and cost-effective circulation system to serve the present and future transportation needs of the Carson community.
- **TI-3**: Minimize intrusion of commuter traffic on local streets through residential neighborhoods.
- **TI-4**: Increase the use of alternate forms of transportation generated in, and traveling through, the City of Carson.
- **TI-5**: Use Transportation Demand Management (TDM) measures throughout the City, where appropriate, to discourage the single-occupant vehicle, particularly during the peak hours. In addition, ensure that any developments that are approved based on TDM plans incorporate monitoring and enforcement of TDM targets as part of those plans.
- **TI-6:** Cooperate to the fullest extent possible with Federal, State, County and regional planning agencies responsible for maintaining and implementing circulation standards to ensure orderly and consistent development of the entire South Bay region.

Carson 2040

The City of Carson is in the process of preparing the Carson 2040 (City of Carson 2021), an update to its 2004 General Plan. Carson 2040 will establish the City's overall approach to development, transportation, environmental quality, and other key topics over the next two decades. The draft plan includes 10 guiding principles, of which one states, "Emphasize a diversity of transportation modes and choices".

City of Carson Master Plan of Bikeways

The City of Carson has a relatively limited bicycle network, with approximately 10.5 miles of bikeways (e.g., bicycle lanes, signed routes, paths) primarily located in residential areas. There are no existing bicycle facilities along the project frontage on either Main Street or 213th Street. The nearest facility is located southeast of the project site, on Dolores Street and includes a bike route between 213th Street and 223rd Street and a bike lane between 223rd Street and Sepulveda Boulevard.

The City of Carson Master Plan of Bikeways (City of Carson 2013) was adopted by the City Council in August 2013 and proposes an extensive network of streets designed to be safe and comfortable for bicyclists, with the goal of enhancing the practical use of bicycles as a transportation choice (see Figure 3.17-1 for a map of the proposed citywide bicycle improvements). Specific goals include in the plan include:

- **Goal 1:** Create a physical environment where people of all ages and physical abilities feel safe and comfortable bicycling throughout Carson for everyday purposes.
- **Goal 2**: Make bicycling the most attractive transportation choice for short trips

- **Goal 3**: Increase safety for all road users
- **Goal 4**: Increase economic vitality by making Carson a more livable city.

Along the project frontage, the Master Plan of Bikeways is proposing to add Type B sharrows on 213th Street, between Main Street and Avalon Boulevard. The Master Plan of Bikeways defines sharrows as pavement markings that alert motorists that a particular travel lane is to be shared with bicyclists and indicate to cyclists the preferred riding position within the lane. Type B sharrows are defined as experimental sharrow treatments with enhanced visibility, such as a painted green lane underneath the sharrow or frequently spaced sharrows with dashed lateral lines resembling lane lines. A Class II bike lane (on-street painted lane) is also proposed along the project frontage on Main Street, between 220th Street and Alondra Boulevard. Additional improvements are proposed along other segments of 213th Street and Main Street to the east and south of the project site.

Transit Facilities

Public transportation in the City of Carson is provided primarily by the Carson Circuit, Torrance Transit, and the Los Angeles County Metro (Metro). Carson Circuit includes eight transit lines operating Monday through Saturday, in various loops throughout the city (see Figure 3.17-2). The project site is served by Carson Circuit Route F, which runs along 213th Street, between Main Street and Avalon Boulevard and Route B which runs along Main Street, between 213th Street and 234th Street. The City also operates a north-south shuttle along Main Street. A bus stop serving Route B is located on the west side of Main Street at the intersection of Main Street and 213th Street (Carson City 2021). Torrance Transit operates Route 3 on Carson Boulevard, approximately a quarter mile south of the project site, with bus stops provided near the intersection of Main Street and Carson Street. The nearest Metro line is the Silver Line (bus rapid transit service), which runs along I-110 approximately 0.5 miles west of the project site, The Metro Express 450 also operates along I-110. The nearest Metro transit stop to the project site is provided at Carson Street and I-110, southwest of the project site, serving both the Silver Line and Express Bus 450 (LA Metro 2021).

The proposed project would not conflict with the CMP, the City's Transportation and Infrastructure Element, the Carson 2040 Plan, or the Carson Master Plan of Bikeways. The proposed project would not alter the existing roadway network nor hinder the City's ability to emphasize a diversity of transportation modes or choices. The project would not include site improvements that would extend into the public right-of-way or interfere with existing public transit, bicycle, or pedestrian facilities, or impede the construction of new or the expansion of such existing facilities in the future. Bicyclist and pedestrian safety would be maintained at existing levels in the area, as there would be no changes to the existing pedestrian or bicycle circulation system. It should be noted that the project would include bicycle parking to allow for residents to utilize bicycles as a mode of transportation. As such, the project would not severely delay, impact, or reduce the service level of transit in the area. Sidewalks and other designated pathways would follow direct and safe routes from the external pedestrian circulation system to each building on the project site. All pedestrian areas within the project site would meet Americans with Disabilities Act (ADA) requirements and adhere to City design guidelines. Therefore, the project would not adversely affect, in a manner that conflicts with, an applicable program, plan, ordinance, or policy, addressing the performance of the circulation system, including public transit, roadway, bicycle or pedestrian facilities. The project would not result in any inconsistencies; as such, no impacts would occur.

b) Would the project conflict or be inconsistent with CEQA Guidelines section 15064.3, subdivision (b)?

Less Than Significant Impact. CEQA Guidelines Section 15064.3(b) focuses on VMT for determining the significance of transportation impacts. As shown in the analysis below, the project's impact due to conflicts or inconsistencies with Section 15064.3(b) would be less than significant.

The City of Carson is currently preparing their VMT thresholds and guidelines. As such, this analysis follows OPR's Technical Advisory on Evaluating Transportation Impacts in CEQA (OPR 2018). The OPR Technical Advisory suggest that agencies may screen out VMT impacts using project size, maps, transit availability, and provision of affordable housing. The OPR Guidelines include the following screening threshold:

- **Screening Threshold for Small Projects:** Projects that generate or attract 110 daily trips or less may be assumed to cause a less than significant transportation impact.

Per trip generation rates from the Institute of Transportation Engineers Trip Generation, 10th Edition (ITE 2017), a mid-rise apartment/multifamily housing development with 19 units would generate an estimated 103 daily trips, seven AM peak hour trips, and eight PM peak hour trips. Since the Project would generate less than 110 daily trips, it would be screened from a VMT analysis per the OPR's Small Project screening criteria. Therefore, a detailed VMT analysis is not required, and the project would not conflict or be inconsistent with CEQA Guidelines Section 150645.3(b), and impacts would be less than significant. The estimated project trip generation is summarized in Table 3.17-1 below.

Table 3.17-1. Project Trip Generation

Land Use	Size/ Units	Daily	AM Peak Hour			PM Peak Hour		
			In	*Out*	*Total*	*In*	*Out*	*Total*
Trip Rates								
Multifamily Housing Mid-Rise (ITE Code 221)	per DU	5.44	0.09	0.27	0.36	0.27	0.17	0.44
Trip Generation								
Carson Lofts Residential Project	19 DUs	103	2	5	7	5	3	8

Notes:
DU= dwelling unit
Trip rates from the Institute of Transportation Engineers (ITE), Trip Generation, 10th Edition, 2017.

c) Would the project substantially increase hazards due to a geometric design feature (e.g., sharp curves or dangerous intersections) or incompatible uses (e.g., farm equipment)?

No Impact. The project would be subject to the City's standard design guidelines to regulate the design of the project through the General Plan and Zoning Ordinance to ensure compatible use. The developer would be responsible for on-site circulation improvements (driveways and internal drive aisles) and frontage improvements (utility connections, landscape areas) along Main Street and 213th Street. These on-site and adjacent improvements would be designed in accordance with all applicable design standards set forth by the City, which were established to ensure safe and efficient vehicular circulation on City roadway facilities. In addition, the City reviews all site plans to ensure that adequate line of sight is provided at all driveways, making sure that no structures or landscaping blocks the views of vehicles entering and exiting a site. As

such, no sharp curves, dangerous intersections, or incompatible uses would be introduced by the project. Therefore, no impacts associated with hazardous design features or incompatible land uses would occur.

d) Would the project result in inadequate emergency access?

No Impact. The project site would be accessible through one driveway on Main Street and one driveway on 213th Street. Each of the project's driveways would be designed and constructed to City standards and comply with City width, clearance, and turning-radius requirements. The project site would be accessible to emergency responders during construction and operation of the project. As a result of the project's driveway entry and because the project would comply with all applicable local requirements related to emergency vehicle access and circulation, the project would not result in inadequate emergency access. Therefore, no impacts associated with inadequate emergency access would occur.

3.18 Tribal Cultural Resources

	Potentially Significant Impact	Less Than Significant Impact With Mitigation Incorporated	Less Than Significant Impact	No Impact
XVIII. TRIBAL CULTURAL RESOURCES				
Would the project cause a substantial adverse change in the significance of a tribal cultural resource, defined in Public Resources Code section 21074 as either a site, feature, place, cultural landscape that is geographically defined in terms of the size and scope of the landscape, sacred place, or object with cultural value to a California Native American tribe, and that is:				
a) Listed or eligible for listing in the California Register of Historical Resources, or in a local register of historical resources as defined in Public Resources Code section 5020.1(k), or	☐	☐	☒	☐
b) A resource determined by the lead agency, in its discretion and supported by substantial evidence, to be significant pursuant to criteria set forth in subdivision (c) of Public Resources Code Section 5024.1. In applying the criteria set forth in subdivision (c) of Public Resource Code Section 5024.1, the lead agency shall consider the significance of the resource to a California Native American tribe?	☐	☒	☐	☐

Assembly Bill 52

AB 52 of 2014 amended PRC Section 5097.94 and added PRC Sections 21073, 21074, 21080.3.1, 21080.3.2, 21082.3, 21083.09, 21084.2, and 21084.3. AB 52 established that tribal cultural resources must be considered under CEQA and also provided for additional Native American consultation requirements for the lead agency. PRC

Section 21074 describes a tribal cultural resource as a site, feature, place, cultural landscape, sacred place, or object that is considered of cultural value to a California Native American Tribe. A tribal cultural resource (TCR) is:

- On the CRHR or a local historic register;
- Eligible for the CRHR or a local historic register; or
- A resource determined by the lead agency, in its discretion and supported by substantial evidence, to be significant pursuant to criteria set forth in subdivision (c) of PRC Section 5024.1.

AB 52 formalizes the lead agency–tribal consultation process, requiring the lead agency to initiate consultation with California Native American groups that are traditionally and culturally affiliated with the project area, including tribes that may not be federally recognized. Lead agencies are required to begin consultation prior to the release of a negative declaration, mitigated negative declaration, or environmental impact report.

Section 1 (a)(9) of AB 52 establishes that "a substantial adverse change to a tribal cultural resource has a significant effect on the environment." Effects on tribal cultural resources should be considered under CEQA. Section 6 of AB 52 adds Section 21080.3.2 to the PRC, which states that parties may propose mitigation measures "capable of avoiding or substantially lessening potential significant impacts to a tribal cultural resource or alternatives that would avoid significant impacts to a tribal cultural resource." Further, if a California Native American tribe requests consultation regarding project alternatives, mitigation measures, or significant effects to tribal cultural resources, the consultation shall include those topics (PRC Section 21080.3.2[a]). The environmental document and the mitigation monitoring and reporting program (where applicable) shall include any mitigation measures that are adopted (PRC Section 21082.3[a]).

Assembly Bill 52 Consultation

The project is subject to compliance with AB 52 (PRC 21074), which requires consideration of impacts to tribal cultural resources as part of the CEQA process, and that the lead agency notify California Native American Tribal representatives (that have requested notification) who are traditionally or culturally affiliated with the geographic area of the proposed project. All NAHC-listed California Native American Tribal representatives that have requested project notification pursuant to AB 52 were sent letters by the City on January 13, 2021, via email and USPS mailing. The notification letters to the Gabrieleno Band of Mission Indians – Kizh Nation, Soboba Band of Luiseno Indians, Santa Rosa Band of Cahuilla Indians, Gabrielino-Tongva Tribe, Gabrielino/Tongva Nation, Gabrielino Tongva Indians of California Tribal Council, Gabrieleno Tongva San Gabriel Band of Mission Indians and the Torres Marinez Desert Cahuilla Indians, contained a project description, outline of AB 52 timing, an invitation to consult, a regional project location map, and contact information for the appropriate lead agency representative. AB 52 allows tribes 30 days after receiving notification to request consultation. If a response is not received within the allotted 30 days, it can be assumed that consultation is declined. The 30-day tribal consultation request window pursuant to AB 52 closed on February 15, 2021. The City received three requests from consultation from the Gabrieleno Band of Mission Indians – Kizh Nation, Gabrielino Tongva Indians of California Tribal Council, and the Gabrieleno Tongva San Gabriel Band of Mission Indians. Although the government-to-government consultation conducted by the City has not resulted in the identification of a known tribal cultural resources, based on information provided by consulting tribes, the City determined that there is potential for the presence of a yet unidentified TCR to exist within or near the proposed project site.

Senate Bill 18

The Local and Tribal Intergovernmental Consultation process, commonly known as SB 18, was signed into law September 2004 and took effect March 1, 2005. SB 18 refers to PRC Section 5097.9 and 5097.995, which defines cultural places as:

- Native American sanctified cemetery place of worship, religious or ceremonial site, or sacred shrine (PRC Section 5097.9).
- Native American historic, cultural, or sacred site that is listed or may be eligible for listing in the California Register of Historic Resources pursuant to Section 5024.1, including any historic or prehistoric ruins, any burial ground, any archaeological or historic site (PRC Section 5097.993).

SB 18 established responsibilities for local governments to contact, provide notice to, refer plans to, and consult with California Native American tribes that have been identified by the NAHC and if that tribe requests consultation after local government outreach as stipulated in Government Code Section 65352.3. The purpose of this consultation process is to protect the identity of the cultural place and to develop appropriate and dignified treatment of the cultural place in any subsequent project. The consultation is required whenever a General Plan, Specific Plan, or open space designation is proposed for adoption or to be amended. Once local governments have sent notification, tribes are responsible for requesting consultation. Pursuant to Government Code Section 65352.3(a)(2), each tribe has 90 days from the date on which they receive notification to respond and request consultation.

In addition to the requirements stipulated previously, SB 18 amended Government Code Section 65560 to "allow the protection of cultural places in open space element of the general plan" and amended Civil Code Section 815.3 to add "California Native American tribes to the list of entities that can acquire and hold conservation easements for the purpose of protecting their cultural places."

Senate Bill 18 Consultation

According to SB 18, the City has a responsibility to notify tribes/groups listed on the California NAHC's tribal representative list, provided upon request for the specific proposed Project area, of the proposed Project aspect that involves a proposed General Plan/Specific Plan or an amendment to the same.

SB 18 requires the City to send a letter to each contact on the NAHC's SB 18 list, extending an invitation for consultation. Tribes will have 90 days from receipt of the letter to request consultation. The City must also send a notice to all contacts 45 days prior to adopting the amended General Plan and Specific Plan, as well as a third notice 10 days prior to any public hearing regarding the General Plan amendment.

All NAHC-listed California Native American Tribal representatives for the specific proposed Project area were sent letters by the City on January 13 and 27, 2021, via email and USPS mailing. The notification letters to the Gabrieleno Band of Mission Indians – Kizh Nation, Soboba Band of Luiseno Indians, Santa Rosa Band of Cahuilla Indians, Gabrielino-Tongva Tribe, Gabrielino/Tongva Nation, Gabrielino Tongva Indians of California Tribal Council, Gabrieleno Tongva San Gabriel Band of Mission Indians and the Torres Marinez Desert Cahuilla Indians, contained a project description, outline of SB 18 timing, an invitation to consult, a regional project location map, and contact information for the appropriate lead agency representative. SB 18 allows tribes 90 days after receiving notification to request consultation. If a response is not received within the allotted 90 days, it can be assumed that consultation is declined. The 90-day tribal consultation request window pursuant to SB 18 closed on April 13 and 27, 2022. The

City received three requests for consultation from the Gabrieleno Band of Mission Indians – Kizh Nation, Gabrielino Tongva Indians of California Tribal Council, and the Gabrieleno Tongva San Gabriel Band of Mission Indians. Although the government-to-government consultation conducted by the City has not resulted in the identification of a known tribal cultural resources, based on information provided by consulting tribes, the City determined that there is potential for the presence of a yet unidentified TCR to exist within or near the proposed project site.

Table 3.18-1 summarizes the results of the AB 52 and SB 18 efforts for the proposed Project. The confidential AB 52 and SB 18 consultation record is on file with the City.

Table 3.18-1. Assembly Bill 52 and Senate Bill 18 Native American Tribal Outreach Results

Native American Tribal Representatives	Method and Date of Notification	Response to City Notification Letters	Consultation Date
Andrew Salas, Chairperson Gabrieleno Band of Mission Indians – Kizh Nation	January 13, 2021 - AB 52 notification letter, sent via certified mail, from the City of Carson Planning Division (City)	February 5, 2021 - The Gabrieleno Band of Mission Indians - Kizh Nation (Tribe), responded to the notification letter via email and acknowledge receipt of the notification letter and asked whether ground disturbance for the Proposed Project would occur. February 8, 2021 - The City responded to Tribe via email and confirmed that ground disturbance for the Proposed Project would take place. Tribe responded to the City's email stating that the Tribe would like to consult for the Proposed Project and provided a date a time for a phone consultation and requested confirmation on the proposed schedule from the City February 16, 2021 - The City sent a follow up email to the Tribe confirming the date of March 24, 2021 at 11am for the phone consultation between the City and the Tribe. The City also provided locational and descriptive information for the proposed Project. March 23, 2021 - Email from the City providing a Project Location Figure	March 24, 2022 - Mitigation measure to arrange an on-site from the Tribe during the Project's ground-disturbance

Table 3.18-1. Assembly Bill 52 and Senate Bill 18 Native American Tribal Outreach Results

Native American Tribal Representatives	Method and Date of Notification	Response to City Notification Letters	Consultation Date
		March 24, 2021 - Formal consultation took place between the City and the Tribe January 13, 2022 - Email from the City requesting confirmation of proposed mitigation measures and confirming formal consultation to take place via telephone on March 24, 2021. January 19, 2022 - Email from the City requesting confirmation of proposed mitigation measures January 19, 2022 - Email from Brandy Salas, Admin Specialist for Tribe, stating she will send over confirmation shortly. January 21, 2022 - Email from Ms. Salas sending a copy of the proposed mitigation measures, along with documentation explaining the cultural significance of the proposed Project Site, and requests a copy of any soils information or Geotech report conducted in the proposed Project site. January 24, 2022 - Email from the City agreeing to the Tribe's proposed mitigation measures and has forwarded them to the applicant. The City states ground disturbance will be approximately 3 feet and includes a copy of a soils report conducted in 2019. February 3, 2022 - Email from the City informing the Tribe the proposed mitigation measures are currently under review and a response will be provided shortly.	

Table 3.18-1. Assembly Bill 52 and Senate Bill 18 Native American Tribal Outreach Results

Native American Tribal Representatives	Method and Date of Notification	Response to City Notification Letters	Consultation Date
		February 4, 2022 - Email from Ms. Salas confirming receival of previous email. March 30, 2022 - Email from the City providing revised mitigation measures March 30, 2022 - Email from Ms. Salas rejecting proposed mitigation measures and proposing revised mitigation measures April 12, 2022 - Email from the City providing revised mitigation measures April 13, 2022 - Email from the Tribe rejecting proposed mitigation measures and proposing revised mitigation measures April 19, 2022 - Email from the City requesting clarification on unsatisfactory elements of proposed mitigation measures April 19, 2022 - Email from the Tribe with comments addressing their concerns April 20, 2022 - Email from the Tribe providing revised mitigation measures April 21, 2022 - Email form the City providing comments to the Tribe's revised mitigation measures and revised mitigation measures	
Gabrieleno/Tongva San Gabriel Band of Mission Indians; Anthony Morales, Chairperson	January 13, 2022 - AB 52/SB 18 notification email from the City of Carson Planning Division (City)	January 13, 2022 - Consultation telephone call between Chairperson Morales and Ms. Alexander from the City. Chairperson Morales requested the following Cultural Mitigation Measure, "If cultural resources are uncovered during ground-disturbing activities, immediately contact	January 13, 2022 - If cultural resources are uncovered during ground-disturbing activities, Chairperson Morales will be contacted.

Table 3.18-1. Assembly Bill 52 and Senate Bill 18 Native American Tribal Outreach Results

Native American Tribal Representatives	Method and Date of Notification	Response to City Notification Letters	Consultation Date
		Chairperson Anthony Morales, Gabrieleno/Tongva San Gabriel Band of Mission Indians, to monitor and participate in ceremony" January 19, 2022 - Email from the City confirming formal consultation took place via telephone on January 13, 2022	
Gabrielino Tongva Indians of California Tribal Council; Christina Conley, Tribal Consultant and Administrator	January 27, 2022 - AB 52/SB 18 notification email from the City of Carson Planning Division (City)	February 14, 2022 - Email from Ms. Conley informing the City the proposed Project site may be sensitive due to its proximity to the tribal village of Swaanga and requested any NAHC SLF result March 1, 2022 - Email form Ms. Conley stating the Gabrielino Tongva Indians of California Tribal Council is concered with ground disturbance at the proposed Project's location March 20, 2022 - Email from Ms. Conley providing mitigation measures March 30, 2022 - Email from the City providing mitigation measures March 31, 2022 - Email from Ms. Conley approving mitigation measures and suggesting a rotation of tribal monitoring for the interested tribes April 12, 2022 - Email from the City providing revised mitigation measures April 12, 2022 - Email from Ms. Conley approving revised mitigation measures and stating the Gabrielino Tongva Indians of California Tribal Council are interested in being a part of Native American monitoring	Consultation closed April 21, 2022

Table 3.18-1. Assembly Bill 52 and Senate Bill 18 Native American Tribal Outreach Results

Native American Tribal Representatives	Method and Date of Notification	Response to City Notification Letters	Consultation Date
		April 21, 2022 - Email from the City providing revised mitigation measures April 21, 2022 - Email form Ms. Conley approving revised mitigation measures	
Gabrielino Tongva Indians of California Tribal Council; Robert Dorame, Chairperson	January 13, 2022 - SB 18 notification email from the City of Carson Planning Division	Specific tribal representative did not respond	N/A
Gabrielino/Tongva Nation; Sandonne Goad, Chairperson	January 13, 2022 - SB 18 notification email from the City of Carson Planning Division (City)	March 16, 2022 - Email from the City confirming consultation is not requested March 22, 2022 - Email from the City confirming consultation is not requested	N/A
Gabrielino-Tongva Tribe; Charles Alvarez, Chairperson	January 13, 2022 - SB 18 notification email from the City of Carson Planning Division (City)	March 16, 2022 - Email from the City confirming consultation is not requested March 22, 2022 - Voicemail and email from the City confirming consultation is not requested. Email was rejected by recipient's email server	N/A
Santa Rosa Band of Cahuilla Indians; Lovina Redner, Tribal Chair	January 27, 2022 - AB 52/SB 18 notification email from the City of Carson Planning Division (City)	February 14, 2022 - Email from the City confirming consultation is not requested	N/A
Soboba Band of Luiseno Indians; Isaiah Vivanco, Chairperson	January 27, 2022 - AB 52/SB 18 notification email from the City from the City of Carson Planning Division (City)	March 16, 2022 - Email from the City to Mr. Ontiveros confirming formal consultation, which took place via telephone on March 16, 2022. The Soboba Band of Luiseno Indians is not requesting consultation and have deffered to Chairperson Morales of the Gabrieleno/ Tongva San Gabriel Band of Mission Indians. As Chairperson	March 16, 2022 - The Soboba Band of Luiseno Indians is not requesting consultation and have deffered to Chairperson Morales of the Gabrieleno/Tongva San Gabriel Band of Mission Indians

Table 3.18-1. Assembly Bill 52 and Senate Bill 18 Native American Tribal Outreach Results

Native American Tribal Representatives	Method and Date of Notification	Response to City Notification Letters	Consultation Date
		Morales and the City have had a consultation in January 2022, the Soboba Band of Luiseno Indians have agreed to colse out this request. March 16, 2022 - Email from the City to Chairperson Vivanco confirming consultation is not requested	
Soboba Band of Luiseno Indians; Scott Cozart, Chairperson	January 13, 2021 - AB 52 notification letter, sent via certified mail, from the City of Carson Planning Division	Specific tribal representative did not respond	N/A
Torres Marinez Desert Cahuilla Indians; Michael Mirelez, Cultural Resource Coordinator	January 13, 2022 - AB 52/SB 18 notification email from the City of Carson Planning Division	No response received	N/A

a) Would the project cause a substantial adverse change in the significance of a tribal cultural resource, defined in Public Resources Code section 21074 as either a site, feature, place, cultural landscape that is geographically defined in terms of the size and scope of the landscape, sacred place, or object with cultural value to a California Native American tribe, and that is:

i) Listed or eligible for listing in the California Register of Historical Resources, or in a local register of historical resources as defined in Public Resources Code section 5020.1(k)?

Less than Significant Impact. As described under Section 3.5 of this document, a CHRIS records search (completed March 23, 2021) was conducted for the project site. No prehistoric or historic resources that could be considered a TCR were identified as a result of the records search. SCCIC records also indicate that that at least eight previous cultural resources investigations have been conducted within one-half mile of the proposed project site between 1939 and 2010. Of the eight previous studies, one study intersects/overlaps the project site; the entirety of the project site has been previously investigated. No cultural resources were identified within the project site as a result of the previous investigation. Therefore, the project would not adversely affect TCRs that are listed or eligible for listing in the state or local register. Impacts would be less than significant.

ii) A resource determined by the lead agency, in its discretion and supported by substantial evidence, to be significant pursuant to criteria set forth in subdivision (c) of Public Resources Code Section 5024.1. In applying the criteria set forth in subdivision (c) of Public Resource Code Section 5024.1, the lead agency shall consider the significance of the resource to a California Native American tribe?

Less than Significant Impact with mitigation. No prehistoric or historic-era archaeological resources, that could be considered a TCR, were identified within the proposed project site as a result of the CHRIS records search (completed March 23, 2021). A review of the geotechnical report prepared for the project site indicates that fill soils were encountered at all five tested locations between 3 to 7 feet below the ground surface (Appendix D). The report further notes that based on the site conditions and the subsurface testing findings, it is recommended that the onsite surface soils within the proposed project impact areas be removed to underlying stiff/firm competent undisturbed natural (native) soil or to a depth of 3 feet below the base of the proposed foundations, whichever is deeper. The site clearing work for the project as described in the geotechnical report would include removal of asphalt, concrete slab, and vegetation. This site clearing work is to extend beyond the proposed excavation and fill areas. The project involves the construction of two three-story apartment buildings, a surface parking lot, and common space for each of the buildings, including connections to existing domestic water, sanitary sewer, stormwater, and dry utility connections. As such, it is assumed that the ground disturbing work associated with the proposed project components will be no greater than 5 feet below the ground surface. In consideration of all these factors, the potential to encounter unknown intact subsurface archaeological resources beyond the depths of identified fill soils is considered low. However, in the event that unanticipated tribal cultural resources are encountered during project implementation, impacts to these resources would be potentially significant. Implementation of the following is required: MM-TCR-1, that requires all Consulting Tribes be notified of the location and timing of the Worker Environmental Awareness Program (WEAP) training for the proper identification and treatment of inadvertent discoveries so that they can participate; MM-TCR-2, that requires the retention of a Native American monitor to observe initial ground disturbing activities occurring from 1 foot above native soils and below; and MM-TCR-3, that provides required protocols to address inadvertent discoveries and requires all construction work occurring within no less than 50 feet of the find to be immediately halted and all Consulting Tribes notified immediately and be consulted. Impacts would therefore be less than significant with mitigation incorporated.

NOTE: For purposes of proper implementation of the following mitigation measures, the term "Consulting Tribe/s" is defined pursuant to PRC 21080.3.1 as California Native American tribes that are traditionally and culturally affiliated with the geographic area of the Project site that may have expertise concerning their tribal cultural resources AND have requested and participated in formal AB 52 consultation for the Project. The tribes that fulfill this definition for this Project include the Gabrieleno Band of Mission Indians Kizh Nation, Gabrieleno/Tongva San Gabriel Band of Mission Indians, and Gabrielino Tongva Indians of California.

MM-TRC-1 **Workers Environmental Awareness Program** - All Consulting Tribes shall be notified by the applicant/owner/developer of the time and location of the Worker Environmental Awareness Program (WEAP) training no later than 72 hours prior to its scheduled occurrence. The applicant/owner/ developer shall provide all Consulting Tribes access and opportunity to participate in the WEAP training. Further details and requirements pertaining to the WEAP training, please see MND Section 3.5 Cultural Resources mitigation measure CR-1.

MM-TCR-2 **Retention of a Native American Monitoring** - Prior to any ground disturbance activities, the applicant/owner/developer shall contact all Consulting Tribes with notification of the approximate commencement of ground disturbing activities. The applicant/owner/developer shall make arrangements with the Consulting Tribes to enter into a Native American Monitoring Agreement with the intent of securing a total of one Native American monitor (from any Tribe under contract) to be present during initial ground disturbance occurring from 1 foot above native soils and below. Initial ground disturbance is defined as initial construction-related earthmoving of sediments from their place of deposition. As it pertains to cultural resource (archaeological or Native American) monitoring, this definition excludes movement of sediments after they have been initially disturbed or displaced by current Project-related construction. The timing of when cultural resource monitoring (archaeological and Native American) shall be required shall be outlined in the Cultural Resource Monitoring and Inadvertent Discovery Plan pursuant to MM-CUL-1. The Plan will be provided to each Consulting Tribe under contract prior to commencement of ground disturbing activities. More than one monitor may be required if multiple areas within the Project site are simultaneously exposed to initial ground disturbance causing monitoring to be hindered by the distance (more than 100 feet apart) of the simultaneous activities. If more than one of the Consulting Tribes would like to serve as a contracted monitoring entity, each Consulting Tribe will be retained under contract with the applicant/owner/ developer and monitoring will occur on a nonsynchronous, rotational basis allowing each Consulting Tribe the opportunity to monitor as equally as possible based on the construction schedule and availability of each Consulting Tribe's monitors.

MM-TCR-3 **Inadvertent Discovery Clause** - In the event that potential prehistoric or historic-era Native American/Tribal resources (sites, features, or artifacts) are exposed during construction activities for the project, all construction work occurring not less than 50 feet of the find shall immediately stop and all–Consulting Tribes must be notified immediately and be consulted with throughout the assessment of the find and determination of whether or not additional study is warranted. Depending upon the nature of the discovery, the archaeologist may simply record the find and allow work to continue. If the discovery proves potentially significant under CEQA, additional work such as subsurface testing may be warranted. If the discovery is determined significant under CEQA and avoidance is not feasible, data recovery will be required.

In the event that human remains and associated funerary objects are inadvertently encountered during construction activities, the remains and funerary objects shall be treated in accordance with state and local regulations that provide requirements with regard to the accidental discovery of human remains, including California Health and Safety Code Section 7050.5, California Public Resources Code Section 5097.98, and CEQA Guidelines Section 15064.5(e). In accordance with these regulations, if human remains are found, the County Coroner must be immediately notified of the discovery. Additionally, all Consulting Tribes must be notified of the discovery immediately. No further excavation or disturbance of the Project site or any nearby (no less than 100 feet) area reasonably suspected to overlie adjacent remains can occur until the County Coroner has determined, within 2 working days of notification of the discovery, if the remains are potentially human in origin. If the County Coroner determines that the remains are, or are believed to be, Native American, he or she is required to notify the NAHC within 24 hours. The NAHC must immediately notify those persons it believes to be the most likely descendant from the deceased Native American. The most likely descendant must then complete their inspection within 48 hours of being granted access to the site. The most likely descendant would then determine, in consultation with the property owner, the disposition and treatment of the human remains.

3.19 Utilities and Service Systems

	Potentially Significant Impact	Less Than Significant Impact With Mitigation Incorporated	Less Than Significant Impact	No Impact
XIX. UTILITIES AND SERVICE SYSTEMS – Would the project:				
a) Require or result in the relocation or construction of new or expanded water, wastewater treatment, or storm water drainage, electric power, natural gas, or telecommunications facilities, the construction or relocation of which could cause significant environmental effects?	☐	☐	☒	☐
b) Have sufficient water supplies available to serve the project and reasonably foreseeable future development during normal, dry, and multiple dry years?	☐	☐	☒	☐
c) Result in a determination by the wastewater treatment provider, which serves or may serve the project that it has adequate capacity to serve the project's projected demand in addition to the provider's existing commitments?	☐	☐	☒	☐
d) Generate solid waste in excess of State or local standards, or in excess of the capacity of local infrastructure, or otherwise impair the attainment of solid waste reduction goals?	☐	☐	☒	☐
e) Comply with federal, state, and local management and reduction statutes and regulations related to solid waste?	☐	☐	☒	☐

a) Would the project require or result in the relocation or construction of new or expanded water, wastewater treatment, or storm water drainage, electric power, natural gas, or telecommunications facilities, the construction or relocation of which could cause significant environmental effects?

Less Than Significant Impact. The project would not require or result in the relocation or construction of new or expanded water, wastewater treatment or stormwater drainage, electric power, natural gas, or telecommunication facilities for the reasons discussed below.

Water Facilities

The project involves the construction of a 19-unit multifamily residential community, which would increase demand for water supply on the project site. According to the Dominguez 2015 UWMP, the demand of

water for a single-family was 9,343 acre-feet per year.[13] Residential customers account for approximately 88% of services but only 37% of water use in the Dominguez District. Based on SCAG's local profile for 2018, the City had an estimated 93,799 residents, and the average household size was 3.6 persons (SCAG 2019). Assuming the 2018 population and 3.6 persons per household, the project would generate approximately 6.9 acre-feet of additional water use per year (0.07% of the total water demand for residential).[14] The project's nominal contribution to the total water demand could be served by existing water facilities serving the project area without requiring new or expanded facilities. There is an existing 6-inch water line and 12-inch water line within Main Street, and an existing 8-inch water line within 213th Street (LACPW 1995). Therefore, impacts associated with the construction or expansion of water facilities would be less than significant.

Wastewater Treatment Facilities

Wastewater generated at the project site would be treated at the Joint Water Pollution Control Plant (JWPCP), which is owned and operated by Sanitation Districts of Los Angeles County (LACSD). The JWPCP is one of the largest wastewater treatment plants in the world and is the largest of the LACSD wastewater treatment plants. JWPCP provides primary and secondary treatment for an estimated 260 million gallons per day of wastewater. The facility is permitted a total capacity of 400 million gallons per day (LACSD 2021). Wastewater generated by the project would represent only a nominal percentage of the JWPCP average dry-weather flow capacity and average wastewater flow.

According to the County of Los Angeles Department of Public Works, the site currently has sanitary sewer connections within Main Street and 213th Street. There are two sewer lines within Main Street (8-inch and 15-inch), and the 15-inch sewer line turns and continues within 213th Street (LACPW 1995). Wastewater generated by the project could flow to the JWPCP via these existing sewer lines. Thus, the project would not require or result in the relocation or construction of new wastewater treatment facilities. Therefore, impacts would be less than significant.

Stormwater Drainage Facilities

Stormwater drainage facilities consist of three existing curb inlets within Main Street. There are two inlets north of the project site, with the closest addresses being 21112 S. Main Street and 21237 S. Main Street. There is an additional inlet south of the project site, with the closest address of 21306 S. Main Street. Stormwater drainage would be collected by these inlets; thus, the project would not require or result in the relocation or construction of new stormwater drainage facilities. Less-than-significant impacts would occur.

Electric Power Facilities

Electric service is provided to the City through SCE's Compton Service Center. Within Carson, there are three primary substations: (1) Carson Substation at Alameda Street and Johns Manville Street, (2) Nola Substation at South Broadway and Victoria Street, and (3) Neptune Street at 213th Street and Grace Avenue. As stated in the General Plan, SCE factors residential uses to contribute to 6,081 kilowatt-hours

[13] Assuming 9,343 acre-feet per year per resident, then each resident would require approximately 0.1 acre-feet of water per year.
[14] This conservatively assumes the project would generate 69 persons and assumes that all residents of the project would be new transplants to the City.

per unit per year (City of Carson 2004). Additionally, SCE would plan for new load growth on residential customer demand.

At full built-out, the project's operational phase would require electricity for building operations (e.g., appliances, lighting). In addition, the project would be required to comply with the 2016 Title 24 standards or the most recent standards at the time of building permit issuance. The energy-using fixtures within the project would likely be newer technologies, using less electrical power. Therefore, impacts associated with electrical power facilities would be less than significant.

Natural Gas Facilities

Natural gas is provided to the City by Southern California Gas Company, Pacific Region. As mentioned in the General Plan, Southern California Gas Company would continually access and upgrade its system to accommodate current and future expansion in residential uses (City of Carson 2004). Although the project would require natural gas for building heating, the project would comply with 2016 Title 24 building energy efficiency standards, reducing energy used in the state. Based on compliance with Title 24, the project would generate a need for natural gas that is consistent with multifamily homes, and due to the newer technology, would require less energy than existing multifamily homes in the surrounding area. Therefore, impacts associated with natural gas facilities would be less than significant.

Telecommunications Facilities

The City of Carson is served by multiple telephone service providers, including various wireless providers. Since the project site is in an urbanized area and is surrounded by single-family residential uses, there are existing telecommunication facilities that would be able to serve the project site. Once the project is completed, the residents of the project would be able to connect to existing telecommunication services without the need for expansion or construction of new facilities. Therefore, impacts associated with telecommunications facilities would be less than significant.

b) Would the project have sufficient water supplies available to serve the project and reasonably foreseeable future development during normal, dry, and multiple dry years?

Less Than Significant Impact. The project site would receive its water supply from the Dominguez District of Cal Water. Based on the 2015 UWMP, the Dominguez District receives its water from 17% groundwater, 15% recycled water, and 68% purchased water. Purchased water is delivered from four Metropolitan Water District distribution feeders (Cal Water 2016).

Since the main source of water for the site is purchased water, supply availability is dependent on precipitation. However, customer demands do vary with local rainfall. In general, water demand tends to increase in dry years, primarily due to increased water activities such as landscape irrigation. Thus, to assess the reliability of their water supply service, every urban water supplier is required to assess its water service under normal, dry, and multiple-dry water years. Table 3.19-1 provides water demand and supplies for dry- and multiple-dry-year scenarios for the Dominguez District of Cal Water.

Table 3.19-1. Multiple Dry Years Supply and Demand Comparison (Acre-Feet per Year)

Dry Year Scenario	Supply and Demand	2020	2025	2030	2035	2040
First Year	**Supply Totals**	**43,623**	**44,376**	**45,395**	**46,554**	**47,858**
	Demand Totals	**43,623**	**44,376**	**45,395**	**46,554**	**47,858**
	Difference	0	0	0	0	0
Second Year	**Supply Totals**	**43,210**	**43,964**	**44,981**	**46,138**	**47,440**
	Demand Totals	**43,210**	**43,964**	**44,981**	**46,138**	**47,440**
	Difference	0	0	0	0	0
Third Year	**Supply Totals**	**43,412**	**44,165**	**45,183**	**46,341**	**47,664**
	Demand Totals	**43,412**	**44,165**	**45,183**	**46,341**	**47,664**
	Difference	0	0	0	0	0

Source: Cal Water 2016, Table 7-4.

According to the 2015 UWMP, Cal Water coordinates on an ongoing basis with all relevant agencies in the region to optimize the use of regional water supplies. This includes the West Basin Municipal Water District, Los Angeles County Sanitation Districts, the Water Replenishment District of Southern California, and other public and private entities. In addition, Cal Water has its own conservation programs to reduce demand on water sources. The UWMP also describes the water shortage contingency plan for the Dominguez District in the event of a drought or a catastrophic supply interruption. The details of the Water Shortage Contingency Plan are provided in the 2015 UWMP and include restrictions on water use based on the four stages of action. With the projects and programs implemented by Cal Water and the City, water supplies are projected to meet full-service demands (see Table 3.19-1) (Cal Water 2016).

Because the City's water demands can be met under multiple dry years, and because supply would meet projected demand due to diversified supply and conservation measures, the project's water demands would be served by the City's projected current and future supplies. Therefore, the project would have sufficient water supplies available during normal, dry, and multiple dry years. Impacts would be less than significant.

c) Would the project result in a determination by the wastewater treatment provider, which serves or may serve the project that it has adequate capacity to serve the project's projected demand in addition to the provider's existing commitments?

Less Than Significant Impact. A significant impact would occur if the wastewater treatment provider indicates that a project would increase wastewater generation to such a degree that the capacity of the facilities currently serving the project site would be exceeded. As described in Section 3.19(a), wastewater generated at the project site would be treated at the JWPCP, which is owned and operated by LACSD. The JWPCP is one of the largest wastewater treatment plants in the world and is the largest of the LACSD wastewater treatment plants. JWPCP provides primary and secondary treatment for an estimated 260 million gallons per day of wastewater. The facility is permitted a total capacity of 400 million gallons per day (LACSD 2021). Wastewater generated by the project would represent only a nominal percentage of the JWPCP average dry-weather flow capacity and average wastewater flow. Therefore, impacts associated with wastewater treatment capacity would be less than significant.

d) Would the project generate solid waste in excess of State or local standards, or in excess of the capacity of local infrastructure, or otherwise impair the attainment of solid waste reduction goals?

Less Than Significant Impact. A significant impact may occur if a project were to increase solid waste generation to such a degree that existing and projected landfill capacities would be insufficient to accommodate the additional solid waste.

According to the City General Plan, solid waste generated by multifamily residential uses in the City is collected by Waste Management. Additionally, Waste Management provides waste collection services for single-family residential uses, commercial, and industrial waste in the City. Waste Management collects an estimated 70,000 tons from residential customers per day. Solid waste collected by Waste Management is transported to the Carson Transfer Station and Materials Recovery where it is sorted by material type. The 10-acre facility has a permitted capacity of 5,300 tons per day. Once the materials have been sorted, tires, green waste, steel, and wood are diverted to special facilities for disposal and recycling. Excess solid waste is sent to El Sobrante Landfill in Riverside County, approximately 75 miles from the City. Waste Management also disposes solid waste to Lancaster Landfill and Simi Valley Landfill as alternates. The total permitted throughput for all landfills is 30,404 tons per day, and approximately 241 million cubic yards of capacity remain, as listed in Table 3.19-2 (CalRecycle 2019).

Table 3.19-2. Existing Landfills

Landfill	Location	Estimated Closing Year	Maximum Permitted Daily Load (tons per day)	Current Remaining Capacity (cubic yards)
El Sobrante Landfill	Corona	2051	16,054	143,977,170
Lancaster Landfill & Recycling Center	Lancaster	2044	5,100	14,514,648
Simi Valley Landfill & Recycling Center	Simi Valley	2063	9,250	82,954,873
		Total	**30,404**	**241,446,691**

Source: CalRecycle 2019

The project involves the construction of a 19-unit multifamily residential community with associated improvements. Project construction would involve some generation of waste during demolition; however, in accordance with AB 939, the construction contractor would ensure that source reduction techniques and recycling measures are incorporated into project construction. Once operational, the project would result in waste typically associated with multifamily residences. In accordance with SB 1383, residents would be required to separate organics from recycled and waste materials. The trash enclosures of the project have been designed to accommodate three bins, one for each waste stream. According to the California Department of Resources Recycling and Recovery, multifamily residences generate approximately 4 pounds per dwelling unit per day (CalRecycle 2019). Thus, it is anticipated the project would generate approximately 76 pounds of solid waste per day, or 13.87 tons per year. This number is nominal compared to the combined 30,404 daily disposal tonnage at El Sobrante, Lancaster, and Simi Valley Landfill. In addition, this amount does not factor in any recycling or waste diversion programs. Solid waste generated by the project would not generate waste in excess of state or local standards. Therefore, impacts associated with landfill capacity would be less than significant.

e) Would the project comply with federal, state, and local management and reduction statutes and regulations related to solid waste?

Less Than Significant Impact. All collection, transportation, and disposal of solid waste generated by the project would comply with all appliable federal, state, and local statues and regulations. Under AB 939, the Integrated Waste Management Act of 1989, local jurisdictions are required to develop source reduction, reuse, recycling, and composting programs to reduce the amount of solid waste entering landfills. Local jurisdictions are mandated to divert at least 50% of their solid waste generation into recycling. The project would be required to submit plans to the Public Works Department for review and approval to ensure the plan would comply with AB 939.

In addition, the state has set an ambitious goal of 75% recycling, composting, and source reduction of solid waste by 2020. To help reach this goal, the state adopted AB 341 and AB 1826. AB 341 is a mandatory commercial recycling bill, and AB 1826 is mandatory organic recycling. Waste generated by the project would enter the City's waste stream but would not adversely affect the City's ability to meet AB 939, AB 341, or AB 1826, since the project's waste generation would represent a nominal percentage of the waste created within the City. Therefore, impacts associated with solid waste disposal regulations would be less than significant.

3.20 Wildfire

	Potentially Significant Impact	Less Than Significant Impact With Mitigation Incorporated	Less Than Significant Impact	No Impact
XX. WILDFIRE – If located in or near state responsibility areas or lands classified as very high fire hazard severity zones, would the project:				
a) Substantially impair an adopted emergency response plan or emergency evacuation plan?	☐	☐	☐	☒
b) Due to slope, prevailing winds, and other factors, exacerbate wildfire risks, and thereby expose project occupants to, pollutant concentrations from a wildfire or the uncontrolled spread of a wildfire?	☐	☐	☐	☒
c) Require the installation or maintenance of associated infrastructure (such as roads, fuel breaks, emergency water sources, power lines, or other utilities) that may exacerbate fire risk or that may result in temporary or ongoing impacts to the environment?	☐	☐	☐	☒
d) Expose people or structures to significant risks, including downslope or downstream flooding or landslides, as a result of runoff, post-fire slope instability, or drainage changes?	☐	☐	☐	☒

The California Department of Forestry and Fire Services (CAL FIRE) is responsible for designating fire hazard severity zones (FHSZs) within the State Responsibility Area throughout California. FHSZs are geographical areas with an elevated risk for wildfire hazard. The State Responsibility Area is the area for which the state assumes financial responsibility for fire suppression and protection. CAL FIRE also creates recommended maps for very high FHSZs within the Local Responsibility Areas, which are then adopted, modified and adopted, by local jurisdictions. Development within a State Responsibility Area is required to abide by specific development and design standards. A review of CAL FIRE's FHSZ maps and data revealed that the project site is not located within a State Responsibility Area or a very high FHSZ (CAL FIRE 2021).

a) If located in or near state responsibility areas or lands classified as very high fire hazard severity zones, would the project substantially impair an adopted emergency response plan or emergency evacuation plan?

No Impact. The project site is not located within a Very High FHSZ. Exhibit SAF-5 of the City's General Plan Safety Element shows the location of collection points and evacuation routes for the City (City of Carson 2004). The project would be required to comply with the City's Emergency Plan, adopted pursuant to Section 3707 of the Municipal Code (City of Carson 2020a).

In addition, the project would be provided emergency access routes along South Main Street and Carson Street. The project site is also provided regional access via I-110 and I-405. Due to this local and regional connectivity, in the unlikely event of an emergency, the project-adjacent roadway facilities would not adversely affect operations on the local or regional circulation system, and as such, would not influence the use of these facilities as emergency response routes. Therefore, no impacts associated within an emergency response plan or emergency evacuation plan within a Very High FHSZ would occur.

b) If located in or near state responsibility areas or lands classified as very high fire hazard severity zones, would the project, due to slope, prevailing winds, and other factors, exacerbate wildfire risks, and thereby expose project occupants to, pollutant concentrations from a wildfire or the uncontrolled spread of a wildfire?

No Impact. The project would construct a 19-unit multifamily residential community with associated improvements. The project is surrounded by roadways and developed properties on all sides and entirely developed, so it is not susceptible to exacerbating wildfire risks. Further, the project site does not contain extensive amounts of vegetation or wildland fuel and is not located within a High FHSZ or Very High FHSZ. Therefore, the project, due to slope, prevailing winds, and other factors, would not exacerbate wildfire risks or expose project occupants to pollutant concentrations from a wildfire or the uncontrolled spread of a wildfire. No impacts would occur.

c) If located in or near state responsibility areas or lands classified as very high fire hazard severity zones, would the project require the installation or maintenance of associated infrastructure (such as roads, fuel breaks, emergency water sources, power lines, or other utilities) that may exacerbate fire risk or that may result in temporary or ongoing impacts to the environment?

No Impact. The project site, which is not located within a Very High FHSZ, involves the construction of a 19-unit multifamily residential community with associated improvements. Given the project site is in a highly developed area, the project site contains existing sanitary sewer connections, water connections, and

stormwater drainage facilities. The project would not involve the construction of roads, fuel breaks, emergency water sources, power lines, or other utilities. It is not anticipated that the project would exacerbate fire risk, since pavement would serve as a fuel break and the project site is surrounded by developed land on all sides. Therefore, no impacts associated with the installation or maintenance of associated infrastructure resulting in exacerbating fire risk would occur.

d) If located in or near state responsibility areas or lands classified as very high fire hazard severity zones, would the project expose people or structures to significant risks, including downslope or downstream flooding or landslides, as a result of runoff, post-fire slope instability, or drainage changes?

No Impact. The project, which is not located within a Very High FHSZ, would comply with the site plan review and permitting requirements of the City. According to the City's General Plan EIR, the City does not contain any known areas where landslide movement has the potential to occur (City of Carson 2002). Additionally, as addressed in Section 3.7, Geology and Soils, the project site is relatively flat and is not adjacent to any potentially unstable topographical features. The project would not result in an increase in impervious areas, ensuring the project would not alter drainage patterns. As such, the project would not expose people or structures to significant risks, including downslope or downstream flooding or landslides, as a result of runoff, post-fire slope instability, or drainage changes. No impacts would occur.

3.21 Mandatory Findings of Significance

	Potentially Significant Impact	Less Than Significant Impact With Mitigation Incorporated	Less Than Significant Impact	No Impact
XXI. MANDATORY FINDINGS OF SIGNIFICANCE				
a) Does the project have the potential to substantially degrade the quality of the environment, substantially reduce the habitat of a fish or wildlife species, cause a fish or wildlife population to drop below self-sustaining levels, threaten to eliminate a plant or animal community, substantially reduce the number or restrict the range of a rare or endangered plant or animal or eliminate important examples of the major periods of California history or prehistory?	☐	☒	☐	☐
b) Does the project have impacts that are individually limited, but cumulatively considerable? ("Cumulatively considerable" means that the incremental effects of a project are considerable when viewed in connection with the effects of past projects, the effects of other current projects, and the effects of probable future projects)?	☐	☒	☐	☐

	Potentially Significant Impact	Less Than Significant Impact With Mitigation Incorporated	Less Than Significant Impact	No Impact
c) Does the project have environmental effects which will cause substantial adverse effects on human beings, either directly or indirectly?	☐	☒	☐	☐

a) Does the project have the potential to substantially degrade the quality of the environment, substantially reduce the habitat of a fish or wildlife species, cause a fish or wildlife population to drop below self-sustaining levels, threaten to eliminate a plant or animal community, substantially reduce the number or restrict the range of a rare or endangered plant or animal, or eliminate important examples of the major periods of California history or prehistory?

Less Than Significant With Mitigation Incorporated. As described throughout this IS/MND, with the incorporation of the identified mitigation measures, the project would not degrade the quality of the environment; would not substantially reduce the habitats of fish or wildlife species; would not cause a fish or wildlife population to drop below self-sustaining levels; would not threaten to eliminate a plant or animal; and would not eliminate important examples of major periods of California history or prehistory with implementation of mitigation measures (MM-CUL-1 and MM-CUL-2). Therefore, impacts would be less than significant with mitigation incorporated.

b) Does the project have impacts that are individually limited, but cumulatively considerable? ("Cumulatively considerable" means that the incremental effects of a project are considerable when viewed in connection with the effects of past projects, the effects of other current projects, and the effects of probable future projects)?

Less Than Significant With Mitigation Incorporated. When evaluating cumulative impacts, it is important to remain consistent with Section 15064(h) of the CEQA Guidelines, which states that an EIR must be prepared if the cumulative impact may be significant and the project's incremental effect, though individually limited, is cumulatively considerable. "Cumulatively considerable" means that the incremental effects of an individual project are significant when viewed in connection with the effects of past projects, the effects of other current projects, and the effects of probable future projects.

Alternatively, a lead agency may determine that a project's incremental contribution to a cumulative effect is not cumulatively considerable through mitigation measures set forth in an MND or if the project will comply with the requirements in a previously approved plan or mitigation program that provides specific requirements that will avoid or substantially lessen the cumulative problem within the geographic area in which the project is located.

The proposed project would potentially result in project related air quality, cultural, geological, hazard, and noise impacts that could be potentially significant without the incorporation of mitigation. Thus, when coupled with air quality, cultural, geological, hazard, and noise impacts related to the implementation of other related projects throughout the broader project area, the project would potentially result in cumulative-level impacts if these significant impacts are left unmitigated.

However, with the incorporation of mitigation identified herein, the project's impacts to air quality, cultural resources, geological resources, hazards, and noise would be reduced to less-than-significant levels and would not considerably contribute to cumulative impacts in the greater project region. In addition, these other related projects would presumably be bound by their applicable lead agency to (1) comply with all applicable federal, state, and local regulatory requirements; and (2) incorporate all feasible mitigation measures, consistent with CEQA, to further ensure that their potentially cumulative impacts would be reduced to less-than-significant levels.

Although cumulative impacts are always possible, the project, by incorporating all mitigation measures outlined herein, would reduce its contribution to any such cumulative impacts to less than cumulatively considerable; therefore, the project would result in individually limited, but not cumulatively considerable, less-than-significant impacts with mitigation incorporated.

c) Does the project have environmental effects which will cause substantial adverse effects on human beings, either directly or indirectly?

Less Than Significant With Mitigation Incorporated. As evaluated throughout this IS/MND, with incorporation of mitigation identified herein, all environmental impacts associated with the project would be reduced to less-than-significant levels. Thus, the project would not directly or indirectly cause substantial adverse effects on human beings. Impacts would be less than significant with mitigation incorporated.

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Figure 2-1 Project Location

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Figure 2-2 Zoning

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Figure 2-3 Site Plan

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Figure 3.13-1 Noise Measurement and Modeling Locations

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Figure 3.17-1 Bicycle Facilities

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Figure 3.17-2 Transit Facilities

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Appendix A

Air Quality and Greenhouse Gases

Appendix B

Construction HRA Analysis

Appendix C

Cultural Resources Report

Appendix D

Preliminary Soil Investigation

Appendix E

Phase I ESA

Appendix F

Noise