



# LAGUNA NIGUEL CITY CENTER MIXED-USE PROJECT DRAFT EIR

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## Volume I. Draft Environmental Impact Report

STATE CLEARINGHOUSE NO. 2019110083



CITY OF LAGUNA NIGUEL

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CITY OF LAGUNA NIGUEL

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# LAGUNA NIGUEL CITY CENTER MIXED-USE PROJECT

for City of Laguna Niguel

## Volume I. Draft EIR

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## Abbreviations and Acronyms

### ABBREVIATIONS AND ACRONYMS

AAQS	ambient air quality standards
AB	Assembly Bill
ACM	asbestos-containing materials
ADT	average daily traffic
amsl	above mean sea level
AQMP	air quality management plan
AST	aboveground storage tank
BAU	business as usual
bgs	below ground surface
BMP	best management practices
CAA	Clean Air Act
CAFE	corporate average fuel economy
CalARP	California Accidental Release Prevention Program
CalEMA	California Emergency Management Agency
Cal/EPA	California Environmental Protection Agency
CAL FIRE	California Department of Forestry and Fire Protection
CALGreen	California Green Building Standards Code
Cal/OSHA	California Occupational Safety and Health Administration
CalRecycle	California Department of Resources, Recycling, and Recovery
Caltrans	California Department of Transportation
CARB	California Air Resources Board
CBC	California Building Code
CCAA	California Clean Air Act
CCR	California Code of Regulations
CDE	California Department of Education
CDFW	California Department of Fish and Wildlife
CEQA	California Environmental Quality Act
CERCLA	Comprehensive Environmental Response, Compensation and Liability Act
cfs	cubic feet per second
CGS	California Geologic Survey
CMP	congestion management program

## Abbreviations and Acronyms

CNDDDB	California Natural Diversity Database
CNEL	community noise equivalent level
CO	carbon monoxide
CO <sub>2</sub> e	carbon dioxide equivalent
Corps	US Army Corps of Engineers
CSO	combined sewer overflows
CUPA	Certified Unified Program Agency
CWA	Clean Water Act
dB	decibel
dba	A-weighted decibel
DPM	diesel particulate matter
DTSC	Department of Toxic Substances Control
EIR	environmental impact report
EPA	United States Environmental Protection Agency
EPCRA	Emergency Planning and Community Right-to-Know Act
FEMA	Federal Emergency Management Agency
FHWA	Federal Highway Administration
FTA	Federal Transit Administration
GHG	greenhouse gases
GWP	global warming potential
HCM	Highway Capacity Manual
HQTA	high quality transit area
HVAC	heating, ventilating, and air conditioning system
IPCC	Intergovernmental Panel on Climate Change
L <sub>dn</sub>	day-night noise level
L <sub>eq</sub>	equivalent continuous noise level
LBP	lead-based paint
LCFS	low-carbon fuel standard
LOS	level of service
LST	localized significance thresholds
M <sub>w</sub>	moment magnitude
MCL	maximum contaminant level
MEP	maximum extent practicable

## Abbreviations and Acronyms

mgd	million gallons per day
MMT	million metric tons
MPO	metropolitan planning organization
MT	metric ton
MWD	Metropolitan Water District of Southern California
NAHC	Native American Heritage Commission
NO <sub>x</sub>	nitrogen oxides
NPDES	National Pollution Discharge Elimination System
O <sub>3</sub>	ozone
OES	California Office of Emergency Services
PM	particulate matter
POTW	publicly owned treatment works
ppm	parts per million
PPV	peak particle velocity
RCRA	Resource Conservation and Recovery Act
REC	recognized environmental condition
RMP	risk management plan
RMS	root mean square
RPS	renewable portfolio standard
RWQCB	Regional Water Quality Control Board
SB	Senate Bill
SCAG	Southern California Association of Governments
SCAQMD	South Coast Air Quality Management District
SIP	state implementation plan
SLM	sound level meter
SoCAB	South Coast Air Basin
SO <sub>x</sub>	sulfur oxides
SQMP	stormwater quality management plan
SRA	source receptor area [or state responsibility area]
SUSMP	standard urban stormwater mitigation plan
SWP	State Water Project
SWPPP	Storm Water Pollution Prevention Plan
SWRCB	State Water Resources Control Board

## Abbreviations and Acronyms

TAC	toxic air contaminants
TNM	transportation noise model
tpd	tons per day
TRI	toxic release inventory
TTCP	traditional tribal cultural places
USFWS	United States Fish and Wildlife Service
USGS	United States Geological Survey
UST	underground storage tank
UWMP	urban water management plan
V/C	volume-to-capacity ratio
VdB	velocity decibels
VHFHSZ	very high fire hazard severity zone
VMT	vehicle miles traveled
VOC	volatile organic compound
WQMP	water quality management plan
WSA	water supply assessment

## Abbreviations and Acronyms

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# 1. Executive Summary

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## 1.1 INTRODUCTION

This Draft Environmental Impact Report (DEIR) addresses the environmental effects associated with the implementation of the proposed Laguna Niguel City Center Mixed Use Project (proposed project). The California Environmental Quality Act (CEQA) requires that local government agencies consider the environmental consequences before taking action on projects over which they have discretionary approval authority. An Environmental Impact Report (EIR) analyzes potential environmental consequences in order to inform the public and support informed decisions by local and state governmental agency decision makers.

This DEIR has been prepared pursuant to the requirements of CEQA. The City of Laguna Niguel, as the lead agency, has reviewed and revised all submitted drafts, technical studies, and reports as necessary to reflect its own independent judgment, including reliance on City technical personnel from other departments and review of all technical subconsultant reports.

Data for this DEIR derive from onsite field observations; discussions with affected agencies; analysis of adopted plans and policies; review of available studies, reports, data and similar literature; and specialized environmental assessments (aesthetics, air quality, biological resources, cultural resources, greenhouse gas (GHG) emissions, hydrology and water quality, land use, noise, population and housing, public services, recreation, transportation and traffic, tribal cultural resources and utilities and service systems).

## 1.2 ENVIRONMENTAL PROCEDURES

This DEIR has been prepared pursuant to CEQA to assess the environmental effects associated with implementation of the proposed project, as well as anticipated future discretionary actions and approvals. CEQA established six main objectives for an EIR:

1. Disclose to decision makers and the public the significant environmental effects of proposed activities.
2. Identify ways to avoid or reduce environmental damage.
3. Prevent environmental damage by requiring implementation of feasible alternatives or mitigation measures.
4. Disclose to the public reasons for agency approval of projects with significant environmental effects.
5. Foster interagency coordination in the review of projects.
6. Enhance public participation in the planning process.

## 1. Executive Summary

An EIR is the most comprehensive form of environmental documentation in CEQA and the CEQA Guidelines; it is intended to provide an objective, factually supported analysis and full disclosure of the environmental consequences of a proposed project with the potential to result in significant, adverse environmental impacts.

An EIR is one of various decision-making tools used by a lead agency to consider the merits and disadvantages of a project that is subject to its discretionary authority. Before approving a proposed project, the lead agency must consider the information in the EIR; determine whether the EIR was prepared in accordance with CEQA and the CEQA Guidelines; determine that it reflects the independent judgment of the lead agency; adopt findings concerning the project's significant environmental impacts and alternatives; and adopt a statement of overriding considerations if significant impacts cannot be avoided.

### 1.2.1 EIR Format

**Chapter 1. Executive Summary:** Summarizes the background and description of the proposed project, the format of this EIR, project alternatives, any critical issues remaining to be resolved, and the potential environmental impacts and mitigation measures identified for the project.

**Chapter 2. Introduction:** Describes the purpose of this EIR, background on the project, the notice of preparation, the use of incorporation by reference, and Final EIR certification.

**Chapter 3. Project Description:** A detailed description of the project, including its objectives, its area and location, approvals anticipated to be required as part of the project, necessary environmental clearances, and the intended uses of this EIR.

**Chapter 4. Environmental Setting:** A description of the physical environmental conditions in the vicinity of the project as they existed at the time the notice of preparation was published, from local and regional perspectives. These provide the baseline physical conditions from which the lead agency determines the significance of the project's environmental impacts.

**Chapter 5. Environmental Analysis:** Each environmental topic is analyzed in a separate section that discusses: the thresholds used to determine if a significant impact would occur; the methodology to identify and evaluate the potential impacts of the project; the existing environmental setting; the potential adverse and beneficial effects of the project; the level of impact significance before mitigation; the mitigation measures for the proposed project; the level of significance after mitigation is incorporated; and the potential cumulative impacts of the proposed project and other existing, approved, and proposed development in the area.

**Chapter 6. Significant Unavoidable Adverse Impacts:** Describes the significant unavoidable adverse impacts of the proposed project.

**Chapter 7. Alternatives to the Proposed Project:** Describes the alternatives and compares their impacts to the impacts of the proposed project. Alternatives include the No Project/No Development Alternative, Existing General Plan Alternative, High-Density Residential Only Alternative, and Reduced Commercial Development Alternative.



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**Chapter 8. Impacts Found Not to Be Significant:** Briefly describes the potential impacts of the project that were determined not to be significant and were therefore not discussed in detail in this EIR.

**Chapter 9. Other CEQA Considerations.** This section includes the following three subsections:

- **Significant Irreversible Changes Due to the Proposed Project:** Describes the significant irreversible environmental changes associated with the project.
- **Growth-Inducing Impacts of the Project:** Describes the ways in which the proposed project would cause increases in employment or population that could result in new physical or environmental impacts.

**Chapter 10. Organizations and Persons Consulted:** Lists the people and organizations that were contacted during the preparation of this EIR.

**Chapter 11. Qualifications of Persons Preparing EIR:** Lists the people who prepared this EIR for the proposed project.

**Appendices:** The appendices for this document consist of these supporting documents:

- Appendix A: Notice of Preparation (NOP)
- Appendix B: NOP and Scoping Meeting Comments
- Appendix C: Air Quality/GHG Appendix
- Appendix D: Biological Survey and Jurisdictional Delineation Technical Memorandum
- Appendix E: Cultural Resources Technical Memorandum
- Appendix F: Energy Appendix
- Appendix G1: Geotechnical Evaluation Report
- Appendix G2: Paleontological Resources Technical Memorandum
- Appendix H1: Environmental Site Assessment
- Appendix H2: Screening Subsurface Investigation
- Appendix I1: Water Quality Management Plan
- Appendix I2: Hydrology Study
- Appendix J: Noise Information and Calculations
- Appendix K: Service Provider Responses
- Appendix L1: Traffic Impact Analysis
- Appendix L2: VMT Impact Analysis
- Appendix M: SB 18/AB 52 Tribal Consultation Letter Responses
- Appendix N1: Water Supply Assessment
- Appendix N2: Water Supply Assessment Letter

### 1.2.2 Type and Purpose of This DEIR

This DEIR has been prepared as a “Project EIR,” defined by Section 15161 of the CEQA Guidelines (California Code of Regulations, Title 14, Division 6, Chapter 3). This type of EIR examines the environmental

## 1. Executive Summary

impacts of a specific development project and should focus primarily on the changes in the environment that would result from the development project. The EIR examines all phases of the project—planning, construction, and operation.

### 1.3 PROJECT LOCATION

The City of Laguna Niguel (City) is in southern Orange County, southern California. It is bordered by Laguna Hills and Aliso Viejo to the north, San Juan Capistrano and Mission Viejo to the east, Dana Point to the south, and Laguna Beach and unincorporated Orange County (Aliso and Wood Canyons Wilderness Park) to the west.

Figure 3-1, *Regional Location*, provides a visual of the regional access to the City from various freeways. East of Laguna Niguel, Interstate 5 (I-5) runs north-south, connecting the City to the majority of southern California. State Route 73 (San Joaquin Hills Transportation Corridor) runs along the northern City limits and connects with I-5 in the northeastern portion of Laguna Niguel. Highway 1, also known as East/West Coast Highway, runs near the southern boundary of Laguna Niguel and connects the City to the Pacific coast.

The project site (Assessor's Parcel Number 656-242-18) is approximately 25 acres, is owned by the County of Orange and leased to Laguna Niguel Town Center Partners LLC to develop the proposed mixed-use project. The property consists of the South County Justice Center (closed in 2008), the Orange County Library, a county maintenance yard, Orange County Fire Station No. 5, and undeveloped land. The site is immediately adjacent to City Hall. The site is generally bounded by Pacific Island Drive to the north, Alicia Parkway to the east, Crown Valley Parkway to the south, and multifamily residential communities to the west (e.g., Niguel Summit Apartments, El Niguel Terrace townhomes, and Charter Terrace single-family homes) (see Figures 3-2, *Local Vicinity*, and 3-3, *Aerial Photograph*).

### 1.4 PROJECT OBJECTIVES

Objectives for the Laguna Niguel City Center Mixed Use Project (proposed project) will aid decision makers in their review of the project and associated environmental impacts:

1. Create a dynamic mix of commercial uses, including retail, restaurant, creative office, health/wellness, and civic uses, that will be unique and distinct from other commercial projects in the City and will be complemented by highly amenitized residential apartment buildings, culminating in a vibrant city center in the heart of Laguna Niguel.
2. Create a financially feasible project that promotes the City's economic well-being with (i) a commercial core that generates local tax revenue and provides new jobs; and (ii) a residential component that creates housing options for existing and new residents to support local businesses, including dining, shopping, office, and entertainment venues.
3. Replace the existing Laguna Niguel library with a larger, innovative, and architecturally significant library with modern programming and technologies to better serve the residents of Laguna Niguel for decades to come. The new library will be an integral part of the project and designed to facilitate connections to and integration with surrounding retail, office, and residential uses.

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4. Incorporate a pedestrian-oriented outdoor town green and gathering place for the community, connected by an integrated walkable network of passive and active pedestrian-oriented paseos and open spaces weaving through the retail and commercial core.
5. Provide investment and redevelopment of underutilized property in the Town Center Opportunity Area by replacing the vacant South County Justice Center and undeveloped county land with a project that would generate new sources of property and sales tax revenue for the City and County.
6. Create a visually impactful, architecturally distinct design and a retailing experience that will attract differentiated retail, restaurant, and commercial tenants to the City of Laguna Niguel and provide unique live, work, and play opportunities for residents of Laguna Niguel and surrounding communities.
7. Improve and enhance the City's profile and amenities for residents by providing a unique mixed-use environment not seen elsewhere in South Orange County that will attract differentiated retail and commercial tenants and a unique, high-quality, pedestrian-oriented commercial center including a state-of-the-art library that the community can enjoy.

### 1.5 PROJECT SUMMARY

The proposed project would include specialty retail, restaurants, office, a new community library, community-oriented event/programmable space, integrated residential apartment homes, and extensive walkable open spaces, paseos, and plazas. The proposed project would include the development of approximately 175,000 square feet of commercial and civic uses and 275 multifamily residential units. The commercial component would include a wide range of uses, such as restaurants, retail shops, health/wellness focused retail and medical office, and creative office space. The civic space consists of an approximately 16,290 square foot county library, which would replace the existing library. The residential component of the proposal is comprised of two apartment buildings—one 200-unit apartment building and one 75-unit apartment building. On-site parking accommodations for the proposed project would include a combination of surface and structured parking for the commercial/civic uses and a mixture of surface parking; private garage; and on-grade, multilevel garage for the residential component. The development vision includes a focus on creating a landmark project for the City with an architecture design blending traditional styles with modern elements. The project applicant will pursue Leadership in Energy and Environmental Design (LEED) certification for the commercial and residential component of the project. The proposed project's site plan is shown in Figure 3-4.

#### 1.5.1.1 PROPOSED PLAN

The project would require the following City approvals and adoptions:

- **General Plan Amendment GPA 19-01.** The subject property is in Community Profile 14, Sub-profile Area C (Town Center Expansion) of the Laguna Niguel General Plan. The Land Use Element designates the majority of the property as “Community Commercial” “Professional Office,” and “Public/Institutional,” which allows a wide range of nonresidential uses, such as retail, restaurant, office, personal service, hotel and public/institutional. The portion of the project site that includes the library and OCFA Fire Station No. 5 are designated “Public/Institutional,” which allows a wide range of public, quasi-public, and special-purpose private facilities that provide government or social services to the

## 1. Executive Summary

community. The General Plan Amendment proposes to modify the land use designation for the entire property (excluding OCFA Fire Station No. 5) to “Community Commercial, Professional Office, Public/Institutional, and Residential Attached” (see Figure 3-5, for *Existing Land Use Designations* and *Proposed Land Use Designations*). To accommodate this development program, the General Plan Amendment also includes amending the statistical summary for Sub-profile Area C to account for the proposed project, including residential dwelling units and other modest narrative updates to reflect existing conditions, which have changed since the original adoption of the General Plan in 1992.

The General Plan Amendment also amends the description for Sub-profile Area C (Town Center Expansion, to be retitled Town Center 3) as follows (strikeout: deleted text, underline: new text):

~~This area is designated Community Commercial, Professional Public/Institutional. The area currently includes the County of Orange Civic which encompasses 46,860 sq. ft. If the County Civic Center vacates this area, a maximum of 130,680 sq. ft. of Community Commercial and a maximum of 217,800 sq. ft. of Professional Office uses are envisioned for the site. Future development of the site may also include City Hall facilities. The existing Crown Valley Branch Library and Fire Station #5 will also remain within the sub area.~~

Anticipated development of the County-owned property includes up to 159,000 sq. ft. of Community Commercial/Professional Office and a new library (approximately 16,3000 square feet in area), which would replace the existing library. Future redevelopment that achieves the projected sub profile area commercial growth may also include development of additive residential dwelling units at a maximum ratio of one (1) unit per 10,000 sq. ft. of commercial development. Bonus additive residential uses up to a total of 275 dwelling units may be developed provided that specific findings are achieved, as described below:

1. The proposed development substantially advances the General Plan’s intent, policies, and actions for Town Center;
2. The proposed development results in substantial public benefit, beyond that required for projects not requesting bonus additive residential uses (e.g., community-serving facilities, public outdoor gathering and event spaces, non-project infrastructure improvements, affordable housing, etc.); and
3. The proposed development results in significant improvements over existing site and building conditions by creating exceptionally high-quality mixed-use development in terms of site planning, architecture, circulation, landscaping, pedestrian amenities, land uses, and other design elements.

Additionally, the proposed General Plan Amendment includes the following policy revisions under Land Use Element Goal 9, “Enhancement of the Town Center” (underline: new text):

- **Policy 9.2.** Enhance pedestrian circulation through the construction of pedestrian walkways and paths. Projects that feature pedestrian activity through street character, plazas, and other outdoor amenities that enhance Town Center’s viability are encouraged.

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- **Policy 9.3.** Encourage the development of new land uses that provide both daytime and evening activities. This may include mixed-use developments comprised of a variety of integrated commercial and additive residential uses that have well planned public spaces that bring people together and provide opportunities for interaction and active living featuring a range of shopping, restaurant, service, employment, civic, and entertainment and leisure activities and uses.
- **Policy 9.4.** Ensure high quality urban design in the Town Center area with structures of varying scale and function that are visually distinct and complement the City’s identity. A focus is also ensuring the appearance of arterials and surrounding streets are significantly enhanced with street trees and other landscaping to improve the visual and spatial experience of drivers and pedestrians.
- **Zone Change ZC 19-01.** The majority of the project site is zoned “Community Commercial” (CC) District, which allows for a variety of retail, restaurant, office, personal service, hotel, and other nonresidential uses. The portion of the project site that includes the library and OCFA Fire Station No. 5 are zoned “Public/Institutional,” which allows a wide range of public, semi-public, and special-purpose private facilities to provide a variety of government and social services. The applicant is proposing a change in the property’s zoning designation to “Mixed-Use Town Center” (MU-TC) district (see Figure 3-6, *Existing Zoning Districts* and *Proposed Zoning Districts*), excluding OCFA Fire Station No. 5.
- **Zoning Code Amendment ZCA 19-01.** Accompanying Zone Change ZC 19-01, a zoning code amendment is proposed to establish the mix of permissible land uses and development standards for the new MU-TC district.
- **Vesting Tentative Tract Map VTTM 19024.** The applicant is proposing a vesting tentative tract map to subdivide the property into a total of 21 lots, including 17 numbered lots and 4 lettered lots.
- **Site Development Permit SDP 19-03.** A site development permit is required for all projects that involve construction of any structure, except in certain limited circumstances. The project involves construction of multiple structures. The applicant is therefore proposing a site development permit for the project. A site development permit is also proposed because the project includes over 5,000 cubic yards of earth work and to allow alternative development standards for a reduction in the minimum depth of boundary landscaping at the base of an ascending slope for a property line segment along proposed Lot 15.

Certification of the Environmental Impact Report and Adoption of Findings of Fact and a Mitigation Monitoring and Reporting Program. An EIR is required by CEQA, and the City must certify the EIR and adopt Findings of Fact and a Mitigation Monitoring and Reporting Program before approving the above-listed project entitlements.

The development program is organized based on the five main development areas and includes general categories of uses to allow a broad range of future tenants, as further described by the project applicant below:

- **Daily Needs Retail.** The Crown Valley entrance would include approximately 19,920 square feet of daily needs retail and convenient surface parking for uses such as a gourmet market, specialty foods, culinary supplies, and restaurants. All buildings would be single story.

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- **Retail Village Core.** The Crown Valley and Alicia Parkway entrances would converge at the main retail village. The overall village comprises approximately 57,210 square feet of single-story retail built around a central open space plaza area (Town Green), all linked by landscaped paseos that would feature shade trees, outdoor lighting, soft seating areas, gardens, and water features. The buildings are designed as single story with patios that open onto the Town Green area. The Town Green would be open to all residents of Laguna Niguel and be improved with outdoor performance/event spaces and other spaces to be programmed by the applicant and others for open air farmers markets, art shows, live music, food and wine festivals, yoga in the park, outdoor movie nights, and more. Potential tenant uses in the Retail Village Core include restaurants; markets; wine stores; breweries; cooking schools; independent-chef-driven food concepts and restaurants; hand-crafted coffee house; specialty markets such as wine, cheese stores, and butchery; retail shops; small artisanal food purveyors; kiosks; educational space; and performance/event space. The buildings would be architecturally distinctive and designed with a natural material such as wood, stone, and plaster siding; crafted storefronts featuring wood and steel windows with fabric awnings and distinctive handcrafted signage; and gabled roofs with standing-seam metal and cedar-shake roofs. Many of the restaurants would feature exposed beamed ceilings, open kitchens, and exterior patio seating areas with landscaped gardens, herb gardens, wood and steel trellis, canvas awnings or umbrellas, fire pits, water features, and wall-mounted fountains.
- **Health/Wellness-Focused Retail and Medical Office.** Directly adjacent to the retail village would be a two-story building totaling 37,899 square feet dedicated to health and wellness that provides for uses such as spin classes, yoga, Pilates, cross-training, stretch/meditation classes, medical office, physical therapy, health food cafes, and active lifestyle shops.
- **Creative Office Space.** Directly adjacent to the retail village would be two creative office buildings totaling 43,522 square feet in two- and three-story structures. The buildings would feature creative spaces with high loft ceilings, skylights, exposed plenum mechanical systems, operable windows, and overhead vertical-lift exterior doors that open to outdoor patios offering soft seating areas with indoor-outdoor collaborative workspaces and recreation areas. The office spaces would support daytime workspace that would benefit from walkability to retail, restaurant, and civic spaces as well as residential housing to complete a fully integrated live-work-play project. The two- and three-story office component is a critical driver in providing an active daytime population to support the proposed commercial uses. The buildings are designed with modern, open floor plans, allowing employees to take a break from their daily work to recharge among open space, shops, and dining options.
- **Library.** The existing Laguna Niguel branch of the Orange County Library system would be replaced with a larger, architecturally significant and modern new library. The existing library is approximately 14,400 gross square feet while the project's proposed library would be approximately 16,290 gross square feet. The total usable square footage would be increased from about 11,100 square feet in the current library to about 13,100 square feet in the new library and would also include approximately 2,600 square feet of outdoor programmable space, expanding the useable area.

The proposed library would be located in the heart of the proposed project's commercial experience. This would provide several benefits to both library patrons and the new commercial uses. By relocating the

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library, the commercial center would have important drive-by exposure and frontage along Crown Valley Parkway, which is imperative to attracting and maintaining the types of commercial tenants envisioned for the proposed project. Relocating the library within the boundaries of the commercial core would also allow library patrons easier access to the restaurants, retail shops, and community gathering areas, and would enhance library experience and accessibility to community event spaces. Finally, the new library would provide a better designed and more functional library space equipped with modern technologies and improved space planning to support the needs of the broader library community and allow for more programming during the year.

- **Residential Village.** The residential component of the proposed project would have 275 apartment units in two separate locations on the property along Alicia Parkway and Pacific Island Drive, with significant pedestrian and architectural connections to the project's commercial, office, and library components. Each residential building would be offered on a for-rent basis at market rates and offer a variety of unit floor plans, including one to three bedrooms in flats and townhome configurations, with surface, structured, and direct-access garages to appeal to a broad segment of the renter market. The buildings would be architecturally distinct and provide modern finishes and features with best-in-class amenities and enhanced pedestrian connections to the commercial core of the project.
- **Residential 1.** Residential 1 would be at the southwest corner of Alicia Parkway and Pacific Island Drive between the Laguna Niguel City Hall and the OCFA fire station. It would house 200 one-, two-, and three-bedroom apartment units in a three- and four-story building that terraces down the existing slope and entirely wraps a four-story, five-level parking garage. Both the residential and garage structures would be on grade, with the parking entirely screened from view. Building height would not exceed 50 feet above the nearest finished grade. Resident amenities would include a leasing office, clubhouse, co-work area, state-of-the-art fitness center with outdoor workout space, outdoor dining, resort pool and spa, cabanas, bike repair shop, and pet spa. Ground-level units facing the commercial portion of the project would have expanded patios and direct entry to the sidewalk. The gross residential building area would be approximately 290,000 square feet, and the garage would be approximately 160,000 gross square feet. The building would have a contemporary design vernacular and include a mixture of materials such as plaster, metal, and tile.
- **Residential 2.** Residential 2 would be at the northwest corner of the site along Pacific Island Drive just west of the OCFA fire station. It would consist of two 3- and 4-story buildings surrounding a surface parking lot and house 75 apartment units consisting of one-, two-, and three-bedroom flats and two-story townhome-style units, some with private rooftop decks. Building height would not exceed 50 feet above nearest finished grade. Building amenities would include a private lounge adjacent to a resort-style pool and spa area that includes outdoor dining, cabanas, and a fire pit. Residents in Residential 2 would also have access to amenities in Residential 1. A number of the ground-floor units facing the south and east would have direct entry at the street level through private, gated patios. The gross residential building area would be approximately 120,000 square feet. Individual private garage space would occupy approximately 15,000 square feet. The project will include a 1.5 kilowatt/unit solar system on carports in the surface parking lot. The buildings would have a modern take on traditional

## 1. Executive Summary

residential design that complement the commercial buildings and would include a mixture of materials such as plaster, metal, stone, tile, and siding.

- **OCFA Station No.5.** The proposed improvements at the OCFA Station No. 5 would include reconstruction and repaving of the drive aprons and parking lot within the southern portion of the Fire Station property

## 1.6 SUMMARY OF PROJECT ALTERNATIVES

### 1.6.1 Alternatives Considered and Rejected During the Scoping/Project Planning Process

Alternatives may be eliminated from detailed consideration in an EIR if they fail to meet most of the project objectives, are infeasible, or do not avoid or substantially reduce any significant environmental effects (CEQA Guidelines § 15126.6[c]). Alternatives that are remote or speculative, or the effects of which cannot be reasonably predicted, also do not need to be considered (CEQA Guidelines § 15126(f)(2)). Per CEQA, the lead agency may make an initial determination as to which alternatives are feasible and warrant further consideration, and which are infeasible. The following alternatives were initially considered but were eliminated from further consideration in this EIR because they do not meet project objectives or were infeasible.

#### **No Residential Development Alternative**

Comments received during the public scoping meeting expressed concern about developing additional multifamily residential units in Laguna Niguel, particularly given the recent residential development approved in the Gateway Specific Plan area near Interstate 5. Under this alternative, the project site would be developed as proposed minus the 275 residential units.

The project site would be developed under a lease arrangement with the County of Orange, which owns the property. The project applicant has indicated that the residential component of the project is required for economic feasibility. The multifamily residential component provides economic support for the commercial development, which enables the development of an extensive network of open plaza and public gathering spaces possible. A No Residential Development Alternative (with the exception of the Existing General Plan alternative) was not considered because it was determined to be economically infeasible by the County (owner of the property) and would not be pursued by the County if the commercial project did not have a significant residential component.

#### **Alternative Development Areas**

CEQA requires that the discussion of alternatives focus on alternatives to the project or its location that are capable of avoiding or substantially lessening any significant effects of the project. The key question and first step in the analysis is whether any of the significant effects of the project would be avoided or substantially lessened by putting the project in another location. Only locations that would avoid or substantially lessen any of the significant effects of the project need be considered for inclusion in the EIR (Guidelines Sec. 15126[5][B][1]). In general, any development of the size and type proposed by the project would have



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substantially the same impacts on air quality, greenhouse gas emissions, hydrology/water quality, land use/planning, noise, population/housing, public services, recreation, transportation/traffic, and utilities/service systems. Without a site-specific analysis, impacts on aesthetics, biological resources, cultural resources, geology/soils, hazards and hazardous materials, , and mineral resources cannot be evaluated.

An alternative development area would be required to have adequate acreage for all components—residential and nonresidential uses—of the Laguna Niguel City Center project. Table B-4 and Figure B-5 of the City of Laguna Niguel Housing Element 2021-2029 detail and illustrate an inventory of vacant and underutilized sites suitable for residential development in the City. The underutilized sites are within the Gateway Specific Plan area and are already entitled for residential development. All other available vacant sites are either too small to accommodate the development footprint of the proposed project or are designated “Residential Detached” in the Land Use Element of the Laguna Niguel General Plan and would not allow development of the nonresidential component of the proposed project. Also, these vacant parcels are adjacent to existing single-family residential subdivisions and would not be an optimal location for a mixed use “downtown” development. Relocating the proposed project within the City would not avoid or substantially lessen the significant and unavoidable GHG impacts of the proposed project. Thus, only the proposed project site in the City’s town center would accommodate the proposed project.

Additionally, the approximately 25-acre project site is owned by the County of Orange and Laguna Center Partners LLC has an option to lease the project site and to develop the proposed project. Thus, it would be economically difficult for the project applicant to purchase or lease another suitable site in Laguna Niguel that can accommodate the proposed development. Given the preceding factors, an alternative development location was rejected from further analysis.

### County Reuse

An alternative that results in the County reuse of the project site was considered for analysis. County reuse could include an expanded maintenance yard, County administrative offices, wellness facilities, supportive housing, and emergency shelters. In 2018, County of Orange staff was directed to develop operational plans for emergency shelters (limiting capacity to 100 individuals). The project site was identified and reviewed for emergency homeless housing and ultimately rejected as a potential site for this use by the County due to substantial public opposition. This alternative was rejected from further review because these project alternatives do not meet any of the project objectives.

### 1.6.2 Alternatives Selected for Further Analysis

The following three alternatives have been determined to represent a reasonable range of alternatives that have the potential to feasibly attain most of the basic objectives of the project but may avoid or substantially lessen any of the significant effects of the project.

- No Project/No Development Alternative
- No Project – Development Under Existing General Plan and Zoning Designation Alternative
- Residential Only Development Alternative
- Reduced Commercial Development Alternative

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Table 1-1, *Project Alternatives: Buildout Statistical Summary*, provides a summary of general socioeconomic buildout projections determined for the four project alternatives compared to the proposed project. The estimates represent projected buildout for each of the alternatives and shows dwelling units, population and employment projections, and the jobs-to-housing ratio for each of the alternatives.

**Table 1-1 Project Alternatives: Buildout Statistical Summary**

	Proposed Project	No Project/No Development Alternative	No Project – Development Under Existing General Plan Land Use Designation Alternative	Residential Development Only Alternative	Reduced Commercial Development Alternative
Residential Units	275	0	0	400	275
Population	704	0	0	1,024	704
Nonresidential SF	174,851 <sup>1</sup>	23,500 <sup>2</sup>	348,480	0	23,750
Commercial	77,110		130,680		23,750
Office	81,451		217,800		
Library	16,290				
Employment	412	19	983 <sup>3</sup>	0	62
Jobs-to-Housing Ratio	2.6	0	NA	NA	0.22

Source: PlaceWorks 2021.

<sup>1</sup> The total nonresidential SF, including the 16,290 SF library is included in this table. Projected jobs are based on the additional net square footage (the total shown minus the existing 14,400 SF library)

<sup>2</sup> Existing nonresidential SF only accounts for the 9,100 SF County maintenance yard and the 14,400 SF Laguna Niguel Library (does not include the 33,300 SF vacant courthouse).

<sup>3</sup> This employment number assumes commercial would be split between fast-casual restaurant and retail.

### 1.6.2.1 NO PROJECT/NO DEVELOPMENT ALTERNATIVE

The No Project/No Development Alternative would keep the project site as is, and no development would occur. Therefore, buildout of this alternative would preserve existing uses onsite, including the 9,100-square-foot County maintenance yard and 14,400-square-foot Laguna Niguel Library. The vacant 33,300-square-foot courthouse is not included because it is not in operation. The County maintenance yard currently employs 7 workers, and the library employs approximately 11 employees.

## Conclusion

### *Ability to Reduce Environmental Impacts*

The No Project/No Development Alternative would reduce impacts to aesthetics, air quality, biological resources, cultural resources, GHG emissions, land use and planning, noise, population and housing, public services, recreation, transportation, tribal cultural resources, and utilities and service systems.

Hydrology and water quality, land use and planning, and wildfire impacts would be greater than the proposed project. This alternative would also eliminate significant and unavoidable impacts of the project on GHG emissions.

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### *Ability to Achieve Project Objectives*

The No Project/No Development Alternative would not achieve any of the project objectives. It would not create a new city center; attract land uses and businesses tailored to the local culture and identity of Laguna Niguel; create a landmark project featuring pedestrian-oriented outdoor plazas and event space that will create a true ‘gathering place’ for the community; connect with existing civic uses; or provide highly amenitized housing opportunities (Objectives Nos. 1, 4, 6 and 7). The No Project/No development Alternative would not provide a new larger, innovative, library with modern programming and technologies to better serve the residents of Laguna Niguel (Objective No. 3). Since no development would occur, this alternative would not replace the vacated South County Justice Center and undeveloped land with new sources of revenue; create a mixed-use development that contributes property and sales tax revenue to the City and County; or develop an environmentally sustainable project (Objective Nos. 2, 5, and 7).

### **1.6.2.2 DEVELOPMENT UNDER EXISTING GENERAL PLAN LAND USE AND ZONING DESIGNATION ALTERNATIVE**

Under this alternative, the site would be developed based on the current Laguna Niguel General Plan land use designation of “Community Commercial,” “Professional Office,” and “Public/Institutional” and on the property’s current zoning of “Community Commercial” (CC) (see Figure 4-1, Existing General Plan Land Use Designations). The potential range and combinations of development and land uses allowable are extensive, including: regional commercial centers and shopping complexes; professional offices, corporate headquarters, research and development, and administrative offices; or a range of public, quasi-public, and special purpose private facilities aimed at providing governmental or social services to the community. This alternative assumes development in accordance with the anticipated land use mix in the current General Plan (Community Profile Area 14). The development of the site would include a maximum of 130,680 square feet of commercial/retail space and a maximum of 217,800 square feet of office space. As with the proposed project, it is assumed that a new library within the commercial portion of the development would replace the existing library. It is unlikely this alternative would include a publicly accessible town green because of space limitations given the amount of commercial development.

### **Conclusion**

#### *Ability to Reduce Environmental Impacts*

The No Project: Development Under Existing General Plan Land Use and Zoning Designation alternative would reduce impacts to , energy, geology and soils, land use and planning, noise, population and housing, public services, recreation, and utilities and service systems. Impacts to aesthetics, biological resources, cultural resources, greenhouse gas emissions, hazards and hazardous materials, hydrology and water quality, tribal cultural resources, and wildfire would be similar. Impacts to air quality, and transportation would be greater than the proposed project.

#### *Ability to Achieve Project Objectives*

The No Project/Development Under Existing General Plan Land Use and Zoning Designation Alternative would only achieve some of the project objectives. The alternative would provide a mix of office and

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commercial uses with new commercial tenants to the City of Laguna Niguel and redevelop the project site with a project that would generate new sources of sales tax (Objectives 1, 2, 5, 6, and 7).

This alternative would not provide a unique mixed-use environment (Objective 1) because residential uses would not be included. This alternative would not provide a pedestrian-oriented town green as the focal point of the commercial experience and gathering place for the community (Objective 4).

### 1.6.2.3 RESIDENTIAL DEVELOPMENT ONLY ALTERNATIVE

Under the Residential Development Only Alternative, nonresidential development would be eliminated and the number of residences would increase to 400 residential units across the project site. The existing library and fire station would remain. This alternative would not include a parking structure. Resident and guest parking would be provided by surface parking and spread throughout the project site. The maximum number of 400 units was determined by the approximate threshold with the potential to reduce the greenhouse gas emissions impact of the proposed project to less than significant. In addition, 400 units is a reasonable estimate of the number of units that could be developed on the site without also constructing structured parking. The Residential Development Only Alternative was designed to evaluate the potential to eliminate the significant and unavoidable impacts of the proposed project. This alternative would introduce approximately 1,024 residents and would likely not include a publicly accessible town green because the residences would be distributed throughout the site.

#### **Conclusion**

##### *Ability to Reduce Environmental Impacts*

The Residential Development Only Alternative would reduce impacts related to aesthetics, air quality, energy, geology and soils, greenhouse gas emissions, hydrology and water quality, noise, public services, tribal cultural resources, and utilities and service systems. Impacts to biological resources, cultural resources, hazards and hazardous materials, and wildfire would be similar. Transportation. Land Use and Planning and Population impacts would be greater than the proposed project impacts.

The alternative would eliminate significant and unavoidable impacts to operational greenhouse gas emissions.

##### *Ability to Achieve Project Objectives*

This Alternative would not achieve many of the project objectives. This alternative would include a residential-only development across the project site that would provide new housing options for existing and new residents, and promote the City's economic well-being by generating new sources of property tax (Objectives 2 and 5).

This alternative would not create a dynamic mix of commercial uses, including retail, restaurant, creative office, health/wellness, and civic uses, that would be unique and distinct from other commercial projects in the City (Objective 1). It would not provide unique live, work, and play opportunities for residents of Laguna Niguel and surrounding communities (Objective 6) or provide increased sales taxes (Objectives 2 and 5). Under this alternative the nonresidential component and town green would be eliminated, and therefore it would not enhance the City's profile and amenities for residents by providing a unique mixed-use environment in South

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Orange County that would attract differentiated retail and commercial tenants and a unique, high-quality, pedestrian-oriented commercial center (Objectives 4 and 7).

### 1.6.2.4 REDUCED COMMERCIAL DEVELOPMENT ALTERNATIVE

Under the Reduced Development Alternative – Reduced Commercial, the vision for the LNCC project would remain the same, but the buildout would consist of 275 residential units and 23,750 square feet of commercial uses (retail and restaurant uses) (see Table 1-1). Commercial uses would be reduced by 137,000 square feet compared to the proposed project. The number of multifamily residential units would remain the same as the proposed projects. Units would not decrease because they are required to assist in financing the nonresidential portion of the project, including the community-oriented outdoor areas and event spaces.

This reduced development alternative was designed to evaluate the potential to eliminate the significant and unavoidable impacts of the proposed project while maintaining an economically viable project. This alternative would introduce approximately 704 residents and 62 employees.

### Conclusion

#### *Ability to Reduce Environmental Impacts*

The Reduced Commercial Development Alternative would reduce impacts to aesthetics, air quality, energy, geology and soils, greenhouse gas emissions, , noise, public services, tribal cultural resources, and utilities and service systems. Impacts to biological resources, cultural resources, hazards and hazardous materials, hydrology and water quality, recreation, transportation, and wildfire would be similar. Land use and planning and population and housing impacts would be greater.

This alternative would eliminate significant and unavoidable impacts to operational greenhouse gas emissions.

#### *Ability to Achieve Project Objectives*

This Alternative would not achieve many of the project objectives. The substantial reduction in office and commercial space under this alternative would preclude this option from effectively achieving the project's objectives. To be potentially viable, this alternative would need to locate the 23,500 SF retail use as daily-needs retail and to conveniently locate this use along Crown Valley Parkway. A dynamic, commercial retail and office use could not be created (Objective 1); the uses would not support an improved town green and the commercial uses would not attract people to a gathering place (Objective 4); and the limited non-residential use could not be designed as a visually impactful attraction for Laguna Niguel and surrounding residents (Objectives 6 and 7). This alternative would not be expected to be able to finance a new, state-of-the art library (Objectives 2 and 3). It would generate revenue to the City and County, but not at the levels anticipated for the proposed project (Objective 5).

### 1.6.3 Environmentally Superior Alternative

CEQA requires a lead agency to identify the “environmentally superior alternative” and, in cases where the “No Project” alternative is environmentally superior to the proposed project, the environmentally superior

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development alternative must be identified. One alternative has been identified as “environmentally superior” to the proposed project:

### Reduced Commercial Development Alternative

The Reduced Commercial Development Alternative would reduce impacts to impacts to aesthetics, air quality, energy, geology and soils, greenhouse gas emissions, noise, public services, and utilities and service systems in comparison to the proposed project. This alternative would also eliminate significant and unavoidable impacts to operational greenhouse gas emissions.

## 1.7 ISSUES TO BE RESOLVED

Section 15123(b)(3) of the CEQA Guidelines requires that an EIR contain issues to be resolved, including the choice among alternatives and whether or how to mitigate significant impacts. With regard to the proposed project, the major issues to be resolved include decisions by the lead agency as to:

1. Whether this DEIR adequately describes the environmental impacts of the project.
2. Whether the benefits of the project override those environmental impacts which cannot be feasibly avoided or mitigated to a level of insignificance.
3. Whether the proposed land use changes are compatible with the character of the existing area.
4. Whether the identified goals, policies, or mitigation measures should be adopted or modified.
5. Whether there are other mitigation measures that should be applied to the project besides the Mitigation Measures identified in the DEIR.
6. Whether there are any alternatives to the project that would substantially lessen any of the significant impacts of the proposed project and achieve most of the basic project objectives.

## 1.8 AREAS OF CONTROVERSY

In accordance with Section 15123(b)(2) of the CEQA Guidelines, the EIR summary must identify areas of controversy known to the lead agency, including issues raised by agencies and the public. Prior to preparation of the DEIR, the NOP was distributed for comment from November 4, 2019, through December 4, 2019. A public scoping meeting was held on November 1, 2019, at the City of Laguna Niguel Council Chambers at 30111 Crown Valley Parkway, Laguna Niguel, CA 92677. A summary of the NOP comment letters received and testimony at the public scoping meeting are summarized in Tables 2-1 and 2-2 in Chapter 2, *Introduction*.

Recurring public comments and concerns were expressed regarding:

- The replacement of the existing library and potential pedestrian and parking access to the proposed new library. Concerns were also expressed regarding the need for an interim library location during project construction.

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- Potential air quality impacts, particularly during project construction.
- Potential lighting and noise impacts to surrounding residences.
- Potential for increased traffic congestion and potential safety issues.
- Public utility (e.g. water demands) and service needs of the proposed new residences.

### **1.9 SUMMARY OF ENVIRONMENTAL IMPACTS, MITIGATION MEASURES/CONDITIONS OF APPROVAL, AND LEVELS OF SIGNIFICANCE**

Table 1-4 summarizes the conclusions of the environmental analysis in this EIR. Impacts are identified as potentially significant or less than significant, and mitigation measures/conditions of approval are identified. The level of significance after imposition of the mitigation measures and conditions of approval is also presented.

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**Table 1-2 Summary of Environmental Impacts, Mitigation Measures/Conditions of Approval and Levels of Significance**

Environmental Impact	Level of Significance Before Mitigation	Mitigation Measures/Conditions of Approval	Level of Significance After Mitigation
<b>5.1 AESTHETICS</b>			
<b>Impact 5.1-1:</b> The proposed project would not have an adverse effect on a scenic vista.	No Impact	No mitigation measures or conditions of approval are required.	No Impact
<b>Impact 5.1-2:</b> The proposed project would not substantially damage scenic resources, including, but not limited to, trees, rock outcroppings, and historic buildings within a state scenic highway.	No Impact	No mitigation measures or conditions of approval are required.	No Impact
<b>Impact 5.1-3:</b> The project would not substantially degrade the existing visual character or quality of the site and its surroundings.	Less than Significant	No mitigation measures or conditions of approval are required.	Less than Significant
<b>Impact 5.1-4:</b> The project would not create a new source of substantial light or glare which would adversely affect day or nighttime views in the area.	Less than Significant	No mitigation measures or conditions of approval are required.	Less than Significant
<b>5.2 AIR QUALITY</b>			
<b>Impact 5.2-1:</b> The proposed project is consistent with the applicable air quality management plan.	Less than Significant	No mitigation measures or conditions of approval are required.	Less than Significant
<b>Impact 5.2-2:</b> Construction activities associated with the proposed project would generate short-term emissions in exceedance of South Coast AQMD's threshold criteria.	Potentially Significant	<p><b>Mitigation Measures</b></p> <p>AQ-1 The construction contractor(s) shall, at minimum, use equipment that meets the United States Environmental Protection Agency's (EPA) Tier 4 (Final) emissions standards for off-road diesel-powered construction equipment with more than 50 horsepower for demolition, site preparation and grading/earthwork, and utilities trenching, construction activities. Any emissions control device used by the contractor shall achieve emissions reductions that are no less than what could be achieved by Tier 4 emissions standards for a similarly sized engine, as defined by the California Air Resources Board's</p>	Less Than Significant

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**Table 1-2 Summary of Environmental Impacts, Mitigation Measures/Conditions of Approval and Levels of Significance**

Environmental Impact	Level of Significance Before Mitigation	Mitigation Measures/Conditions of Approval	Level of Significance After Mitigation
		<p>regulations. Prior to construction, the project engineer shall ensure that all plans clearly show the requirement for EPA Tier 4 emissions standards for construction equipment over 50 horsepower for the specific activities stated above. During construction, the construction contractor shall maintain a list of all operating equipment associated with building demolition in use on the site for verification by the City. The construction equipment list shall state the makes, models, and numbers of construction equipment onsite. Equipment shall be properly serviced and maintained in accordance with the manufacturer's recommendations.</p> <p>AQ-2 The construction contractor(s) shall implement the following measures to reduce construction exhaust emissions during demolition and soil hauling activities associated with demolition and site preparation:</p> <ul style="list-style-type: none"> <li>Demolition activities shall be prohibited from overlapping with site preparation and grading activities. Ground disturbing activities shall commence following the demolition of the existing structures onsite.</li> <li>Hauling of soil generated from rough grading activities shall be limited to a maximum of 3,626 miles per day. Air quality modeling was based on the assumption that the 3,626 miles per day would consist of 98 one-way haul trips per day with 14 cubic-yard trucks and a one-way haul distance of approximately 37 miles..</li> </ul> <p>These requirements shall be noted on all construction management plans prior to issuance of any construction permits and verified by the City of Laguna Niguel during the demolition and soil-disturbing phases.</p>	
<b>Impact 5.2.3:</b> Long-term operation of the project would not generate additional vehicle trips and associated emissions in exceedance of South Coast AQMD's threshold criteria.	Less than Significant	No mitigation measures or conditions of approval are required.	Less than Significant

1. Executive Summary

**Table 1-2 Summary of Environmental Impacts, Mitigation Measures/Conditions of Approval and Levels of Significance**

Environmental Impact	Level of Significance Before Mitigation	Mitigation Measures/Conditions of Approval	Level of Significance After Mitigation
<p><b>Impact 5.2-4:</b> Construction activities associated with the proposed project would expose sensitive receptors to substantial pollutant concentrations.</p>	Potentially Significant	<p><b>Mitigation Measures</b></p> <p>AQ-3 The construction contractor shall prepare a dust control plan and implement the following measures during ground-disturbing activities—in addition to the existing requirements for fugitive dust control under South Coast Air Quality Management District (AQMD) Rule 403—to further reduce PM10 and PM2.5 emissions:</p> <ul style="list-style-type: none"> <li>• Following all grading activities, the construction contractor shall prevent dust and wind-born erosion by either planting ground cover or applying a binder/gel tackifier.</li> <li>• During all construction activities, the construction contractor shall sweep streets with South Coast AQMD Rule 1186–compliant, PM10-efficient vacuum units on a daily basis if silt is carried over to adjacent public thoroughfares or occurs as a result of hauling.</li> <li>• During all construction activities, the construction contractor shall maintain a minimum 24-inch freeboard on trucks hauling dirt, sand, soil, or other loose materials and shall tarp materials with a fabric cover or other cover that achieves the same amount of protection.</li> <li>• During all construction activities, the construction contractor shall water exposed ground surfaces and disturbed areas a minimum of every three hours on the construction site and a minimum of three times per day.</li> <li>• During all construction activities, the construction contractor shall limit onsite vehicle speeds on unpaved roads to no more than 15 miles per hour.</li> <li>• During all ground disturbing activities, the construction contractor shall apply nontoxic soil stabilizers to minimize fugitive dust.</li> </ul> <p>Prior to construction activities, the construction contractor shall ensure that all construction plans submitted to the City clearly show the watering and soil stabilizer requirement to control fugitive dust. During construction activities,</p>	Less Than Significant

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**Table 1-2 Summary of Environmental Impacts, Mitigation Measures/Conditions of Approval and Levels of Significance**

Environmental Impact	Level of Significance Before Mitigation	Mitigation Measures/Conditions of Approval	Level of Significance After Mitigation
		the City of Laguna Niguel shall verify that these measures have been implemented during normal construction site inspections.	
<b>Impact 5.2 5:</b> Operation of the proposed project would not expose sensitive receptors to substantial pollutant concentrations.	Less Than Significant	No mitigation measures or conditions of approval are required.	Less Than Significant
<b>Impact 5.2 6:</b> The proposed project would not result in other emissions (such as those leading to odors) adversely affecting a substantial number of people.	Less Than Significant	No mitigation measures or conditions of approval are required.	Less Than Significant
<b>5.3 BIOLOGICAL RESOURCES</b>			
<b>Impact 5.3-1:</b> Development of the proposed project could impact the Cooper's hawk, a California Department of Fish and Wildlife Watch List species when nesting, and white-tailed kite, a Sensitive Species.	Potentially Significant	<p><b>Mitigation Measures</b></p> <p>BIO-1 Prior to removal of potentially suitable nesting habitat for raptors or songbirds, the project applicant shall demonstrate to the satisfaction of the City of Laguna Niguel that the following has been or will be accomplished:</p> <p>The project applicant and construction contractor shall schedule all vegetation removal activities outside the nesting season to avoid potential impacts to nesting birds, including sensitive raptor species such as Cooper's hawk and white-tailed kite. The nesting season is February 15 to September 15 for songbirds and January 15 to September 15 for raptors.</p> <p>If vegetation removal cannot be avoided during the nesting season—January 15 through September 15—the project applicant shall have a qualified biologist survey all potential nesting vegetation within the property for nesting birds prior to commencing vegetation removal. If no nesting activities are observed, work activities may begin. If an active bird nest is located, the nest site should be avoided, and a buffer should be marked/flagged at an appropriate distance in all directions. The buffer distance is dependent on the nesting bird species, typically 500 feet for endangered, threatened, and candidate species and all raptors, and 100 to 300 feet for other species, as determined appropriate by the</p>	Less Than Significant

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**Table 1-2 Summary of Environmental Impacts, Mitigation Measures/Conditions of Approval and Levels of Significance**

Environmental Impact	Level of Significance Before Mitigation	Mitigation Measures/Conditions of Approval	Level of Significance After Mitigation
		qualified biologist. No work shall occur within the buffer area until after the nest becomes inactive, or unless a qualified biologist monitors the nest during construction activities within the buffer and does not observe any signs of stress or erratic behavior that indicate a negative effect on nesting. The biologist shall inform construction personnel of the location of active nest(s) and required avoidance measures. The survey results shall be submitted to the City of Laguna Niguel Planning Division for review and approval.	
<b>Impact 5.3-2:</b> The project would not 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	No mitigation measures or conditions of approval are required.	No Impact
<b>Impact 5.3-3:</b> The project would not have a substantial adverse effect on federally protected wetlands as defined by Section 404 of the Clean Water Act (including but not limited to marsh, vernal pool, coastal, etc.) through direct removal, filling, hydrological interruption, or other means.	No Impact	No mitigation measures or conditions of approval are required.	No Impact
<b>Impact 5.3-4:</b> The proposed project would not interfere with wildlife movement or a wildlife corridor; however, the proposed project could interfere with a native wildlife nursery site.	Potentially Significant	Mitigation Measures BIO-1 is required.	Less Than Significant
<b>Impact 5.3-5:</b> The proposed project would not conflict with any policies or ordinance protecting biological resources or conflict with an adopted Habitat Conservation Plan, National Community Conservation Plan, or other approved local, regional, or state habitat conservation plan.	Less than Significant	No mitigation measures or conditions of approval are required.	Less than Significant

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**Table 1-2 Summary of Environmental Impacts, Mitigation Measures/Conditions of Approval and Levels of Significance**

Environmental Impact	Level of Significance Before Mitigation	Mitigation Measures/Conditions of Approval	Level of Significance After Mitigation
<b>5.4 CULTURAL RESOURCES</b>			
<p><b>Impact 5.4-1:</b> Development of the project could impact an identified historic resource pursuant to Section 15064.5.</p>	Potentially Significant	<p><b>Mitigation Measures</b></p> <p>CUL-1 Prior to the issuance of grading permits, and for any subsequent permit involving excavation to increased depths, the project applicant shall provide a letter to the City of Laguna Niguel from a qualified archaeologist who meets the Secretary of the Interior’s Professional Qualifications Standards. The letters shall state that the applicant has retained this individual, and that the consultant will monitor all grading and other significant ground-disturbing activities in native soil. During initial monitoring, if the qualified archaeologist can demonstrate that the level of monitoring should be reduced or discontinued, or if the qualified archaeologist can demonstrate a need for continuing monitoring, the qualified archaeologist, in consultation with the Laguna Niguel Planning Division, may adjust the level of monitoring to circumstances as warranted. In the event archaeological resources are discovered during ground-disturbing activities, a professional archeological monitor shall have the authority to halt any activities adversely impacting potentially significant cultural resources until they can be formally evaluated. Suspension of ground disturbances in the vicinity of the discoveries shall not be lifted until the archaeological monitor has evaluated discoveries to assess whether they are classified as significant cultural resources, pursuant to the California Environmental Quality Act (CEQA).</p> <p>If archaeological resources are recovered, they shall be offered to a repository with a retrievable collection system and an educational and research interest in the materials, such as the John D. Cooper Center or California State University, Fullerton, or a responsible public or private institution with a suitable repository willing to and capable of accepting and housing the resource. If no museum or repository willing to accept the resource is found, the resource shall be considered the property of the City and may be stored, disposed of, transferred, exchanged, or otherwise handled by the City at its discretion.</p>	Less Than Significant

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**Table 1-2 Summary of Environmental Impacts, Mitigation Measures/Conditions of Approval and Levels of Significance**

Environmental Impact	Level of Significance Before Mitigation	Mitigation Measures/Conditions of Approval	Level of Significance After Mitigation
		If significant Native American cultural resources are discovered, for which a treatment plan must be prepared, the project applicant or the archaeologist on call shall contact the applicable Native American tribal contact(s). If requested by the Native American tribe(s), the project applicant or archaeologist on call shall, in good faith, consult on the discovery and its disposition (e.g., avoidance, preservation, reburial, return of artifacts to tribe).	
<b>Impact 5.4-2:</b> Development of the project could impact archaeological resources.	Potentially Significant	Mitigation Measure CUL-1 is required.	Less Than Significant
<b>Impact 5.4-3:</b> Development of the project would not disturb human remains.	Less Than Significant	No mitigation measures or conditions of approval are required.	Less Than Significant.
<b>5.5 ENERGY</b>			
<b>Impact 5.5-1:</b> The project would not result in potentially significant environmental impacts due to wasteful, inefficient, or unnecessary consumption of energy resources during project construction or operation.	Less Than Significant	No mitigation measures or conditions of approval are required.	Less Than Significant
<b>Impact 5.5-2:</b> The Project would not conflict with or obstruct a state or local plan for renewable energy or energy efficiency.	Less Than Significant	No mitigation measures or conditions of approval are required.	Less Than Significant
<b>5.6 GEOLOGY AND SOILS</b>			
<b>Impact 5.6-1:</b> Project occupants would be subject to strong ground shaking, however, project development would not subject people or structures to seismic-related ground failure including liquefaction and landslides.	Less Than Significant	No mitigation measures or conditions of approval are required.	Less Than Significant
<b>Impact 5.6-2:</b> The proposed project would not result in substantial soil erosion or loss of topsoil.	Less Than Significant	No mitigation measures or conditions of approval are required.	Less Than Significant

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**Table 1-2 Summary of Environmental Impacts, Mitigation Measures/Conditions of Approval and Levels of Significance**

Environmental Impact	Level of Significance Before Mitigation	Mitigation Measures/Conditions of Approval	Level of Significance After Mitigation
<b>Impact 5.6-3:</b> The proposed project would not result in on- or off-site landslide, lateral spreading, subsidence, liquefaction, or collapse and is located on expansive soils that would not create a direct or indirect risk to life and property.	Less Than Significant	No mitigation measures or conditions of approval are required.	Less Than Significant
<b>Impact 5.6-4:</b> The proposed project would not include the installation of septic tanks.	No Impact	No mitigation measures or conditions of approval are required.	No Impact
<b>Impact 5.6-5:</b> The project could directly or indirectly destroy a unique paleontological resource or site or unique geologic feature.	Potentially Significant	<p><b>Mitigation Measures</b></p> <p>GEO-1 Prior to the issuance of grading permits, and for any subsequent permit involving excavation to increased depths, the project applicant shall provide a letter to the City of Laguna Niguel from a qualified paleontologist and paleontological monitor who meet the Secretary of the Interior’s Professional Qualifications Standards. The letters shall state that the applicant has retained these individuals, and that the consultant(s) will monitor grading and significant ground-disturbing activities in areas identified as likely to contain paleontological resources during project construction. These areas are defined as all excavations of previously undisturbed sediments in areas mapped as the Capistrano Formation and in areas of Quaternary alluvium where excavations would exceed depths of five feet.</p> <p>The qualified paleontologist and/or paleontological monitor shall attend all pre-grade meetings to ensure all construction personnel receive training to ensure recognition of fossil materials in the event any are discovered during earthwork.</p> <p>The qualified paleontological monitor shall be equipped to salvage fossils and samples of sediments as they are unearthed to avoid construction delays, and shall be empowered to temporarily halt or divert grading activities in order to recover the fossil specimens.</p>	Less Than Significant



1. Executive Summary

**Table 1-2 Summary of Environmental Impacts, Mitigation Measures/Conditions of Approval and Levels of Significance**

Environmental Impact	Level of Significance Before Mitigation	Mitigation Measures/Conditions of Approval	Level of Significance After Mitigation
		<p>If previously undiscovered paleontological resources are discovered onsite, suspension of ground disturbances in the vicinity of the discoveries shall not be lifted until the paleontological monitor has evaluated discoveries to assess whether they are classified as significant paleontological resources, pursuant to the California Environmental Quality Act (CEQA). Recovered specimens shall be prepared to a point of identification and permanent preservation, including washing of sediments to recover small invertebrates and vertebrates. Found specimens shall then be curated into the John D. Cooper Center in Santa Ana or a responsible public or private institution with a suitable repository willing to and capable of accepting and housing the resource. If no museum or repository willing to accept the resource is found, the resource shall be considered the property of the City and may be stored, disposed of, transferred, exchanged, or otherwise handled by the City at its discretion to avoid a significant impact</p> <p>Upon completion of construction activities, the qualified paleontological monitor shall prepared a report of paleontological resource findings within 30 days of construction completion. The report shall include an appended itemized inventory of recovered resources, documentation of each locality, and interpretation of recovered fossils. The report and inventory, when submitted and approved by the City, will signify completion of the program to mitigate impacts to paleontological resources.</p>	
<b>5.7 GREENHOUSE GAS EMISSIONS</b>			
<p><b>Impact 5.7-1:</b> Implementation of the proposed project would generate a net increase in GHG emissions, either directly or indirectly, that would have a significant impact on the environment.</p>	Potentially Significant	<p>Mitigation Measures</p> <p>GHG-1 All installed/provided major appliances shall be “Energy Star” appliances. Prior to issuance of building permits for residential and nonresidential buildings, the property owner/applicant shall identify on the building plans that all major appliances (dishwashers, refrigerators, clothes washers, and dryers) to be provided/installed are “Energy Star” appliances. Proper installation of these</p>	Significant and Unavoidable

# 1. Executive Summary

**Table 1-2 Summary of Environmental Impacts, Mitigation Measures/Conditions of Approval and Levels of Significance**

Environmental Impact	Level of Significance Before Mitigation	Mitigation Measures/Conditions of Approval	Level of Significance After Mitigation
		features shall be verified by the City of Laguna Niguel prior to issuance of a Certificate of Occupancy.	
	GHG-2	<p>Prior to issuance of building permits for residential development buildings, the project applicant shall indicate on the building plans that the following features shall be incorporated into the design of the building(s). Proper installation of these features shall be verified by the City of Laguna Niguel prior to issuance of a Certificate of Occupancy.</p> <ul style="list-style-type: none"> <li>• For residential and nonresidential buildings, electric vehicle charging shall be provided as specified in Section A4.106.8.2 (Residential Voluntary Measures) and A5.106.5.3 (Nonresidential Voluntary Measures) of the 2019 CALGreen Code as applicable.</li> <li>• Bicycle parking shall be provided as specified in Section A4.106.9 (Residential Voluntary Measures) of the 2019 CALGreen Code and reproduced below.                             <ul style="list-style-type: none"> <li>- <i>Short-term bicycle parking</i> – Permanently anchored bicycle racks shall be provided within 100 feet of the visitor’s entrance to the residential building, readily visible to passers-by, for 5 percent of visitor motorized vehicle parking capacity for the multifamily units with a minimum of one 2-bike capacity rack.</li> <li>- <i>Long-term bicycle parking for multifamily buildings</i> – Provide on-site bicycle parking for at least one bicycle per every two dwelling units. Acceptable bike parking facilities shall be conveniently reached from the street.</li> </ul> </li> </ul>	
	GHG-3	Prior to issuance of building permits for nonresidential development buildings, the project applicant shall indicate on the building plans that the following features have been incorporated into the design of the building(s). Proper	

# 1. Executive Summary

**Table 1-2 Summary of Environmental Impacts, Mitigation Measures/Conditions of Approval and Levels of Significance**

Environmental Impact	Level of Significance Before Mitigation	Mitigation Measures/Conditions of Approval	Level of Significance After Mitigation
		<p>installation of these features shall be verified by the City of Laguna Niguel prior to issuance of a Certificate of Occupancy.</p> <ul style="list-style-type: none"> <li>Preferential parking for low-emitting, fuel-efficient, and carpool/van vehicles shall be provided as specified in Section A5.106.5.1 (Nonresidential Voluntary Measures) of the 2019 CALGreen Code. Facilities shall be installed to support future electric vehicle charging at each nonresidential building with 30 or more parking spaces. Installation shall be consistent with Section A5.106.5.3 (Nonresidential Voluntary Measures) of the 2019 CALGreen Code.</li> </ul>	
<p><b>Impact 5.7-2:</b> Implementation of the proposed project could potentially conflict with an applicable plan (CARB's Scoping Plan), policy, or regulation adopted for the purpose of reducing the emissions of GHGs.</p>	<p>Potentially Significant</p>	<p>No mitigation measures or conditions of approval are identified beyond GHG-1 through GHG-3..</p>	<p>Potentially Significant</p>
<p><b>5.8 HAZARDS AND HAZARDOUS MATERIALS</b></p>			
<p><b>Impact 5.8-1:</b> Project construction and operations would involve the transport, use, and/or disposal of hazardous materials.</p>	<p>Potentially Significant</p>	<p><b>Mitigation Measures</b></p> <p>HAZ-1 Prior to issuance of grading permits, the project applicant shall prepare and implement a soils management plan (SMP) for the vehicle maintenance facility and the former fire station. The SMP will ensure that safe and appropriate handling, transportation, off-site disposal, reporting, oversight, and protocols are used during construction to protect the health and safety of workers and future residents. The SMP shall establish methodology and procedures to perform additional testing during grading if unknown hazardous materials are encountered and prior to grading for the soil stockpile. If, during grading activities, additional contamination is discovered, grading within that area shall be temporarily halted and redirected around the area until the appropriate evaluation and follow-up remedial measures are implemented in accordance with the SMP to render the area suitable to resume grading activities. Soil remediation and/or export of hazardous materials must be performed in accordance with the appropriate agency's requirements (Regional Water</p>	<p>Potentially Significant</p>

# 1. Executive Summary

**Table 1-2 Summary of Environmental Impacts, Mitigation Measures/Conditions of Approval and Levels of Significance**

Environmental Impact	Level of Significance Before Mitigation	Mitigation Measures/Conditions of Approval	Level of Significance After Mitigation
		Quality Control Board, Department of Toxic Substances Control, and/or South Coast Air Quality Management District).	
		HAZ-2 After grading is complete, the project applicant shall perform a post-grading soil vapor survey within the footprint of future structures in the areas of the vehicle maintenance facility and former fire station. The survey shall be approved by the City and the appropriate oversight agency (OC EHD or DTSC) prior to sign-off of the grading permit.	
		HAZ-3 Prior to the issuance of a demolition permit for the County Library, the project applicant shall conduct a comprehensive survey for asbestos-containing materials to identify the locations and quantities of asbestos-containing materials in above-ground structures. The project applicant shall retain a licensed or certified asbestos consultant to inspect buildings and structures on-site. If asbestos is discovered, the project applicant shall retain a licenses or certified contractor to remove and dispose of all asbestos containing materials in accordance with the appropriate South Coast AQMD asbestos-containing material removal practices and procedures.	
<b>Impact 5.8-2:</b> The project site is on a list of hazardous materials sites and, as a result, would create a hazard to the public or the environment.	Potentially Significant	Mitigation Measures HAZ-1 and MM HAZ-2 are required.	Less Than Significant
<b>Impact 5.8-3:</b> The project site is not located in the vicinity of an airport or within the jurisdiction of an airport land use plan.	No Impact	No mitigation measures or conditions of approval are required.	No Impact
<b>Impact 5.8-4:</b> Project development could affect the implementation of an emergency responder or evacuation plan.	Less Than Significant	No mitigation measures or conditions of approval are required.	Less Than Significant

## 1. Executive Summary

**Table 1-2 Summary of Environmental Impacts, Mitigation Measures/Conditions of Approval and Levels of Significance**

Environmental Impact	Level of Significance Before Mitigation	Mitigation Measures/Conditions of Approval	Level of Significance After Mitigation
<b>Impact 5.8-5:</b> The project site is in adjacent to a Very High Fire Hazard Severity Zone and could expose structures and/or residences to fire danger.	Less Than Significant	No mitigation measures or conditions of approval are required.	Less Than Significant
<b>5.9 HYDROLOGY AND WATER QUALITY</b>			
<b>Impact 5.9-1:</b> The proposed project would not violate water quality standards or waste discharge requirements or otherwise substantially degrade surface or ground water quality.	Less Than Significant	No mitigation measures or conditions of approval are required.	Less Than Significant
<b>Impact 5.9-2:</b> The proposed project would not substantially decrease groundwater supplies or interfere substantially with groundwater recharge such that the project may impede sustainable groundwater management of the basin.	Less Than Significant	No mitigation measures or conditions of approval are required.	Less Than Significant
<b>Impact 5.9-3:</b> The proposed project would not substantially alter the existing drainage pattern of the site or area, including through the alteration of the course of a stream or river, in a manner which would result in a substantial erosion or siltation on- or off-site.	Less Than Significant	No mitigation measures or conditions of approval are required.	Less Than Significant
<b>Impact 5.9-4:</b> The proposed project would not substantially increase the rate or amount of surface runoff and result in flooding on- or offsite or create or contribute runoff water which would exceed the capacity of existing or planned stormwater drainage systems.	Less Than Significant	No mitigation measures or conditions of approval are required.	Less Than Significant
<b>Impact 5.9-5:</b> The proposed project would not risk release of pollutants due to project inundation in flood hazard, tsunami, or seiche zones	No Impact	No mitigation measures or conditions of approval are required.	No Impact

# 1. Executive Summary

**Table 1-2 Summary of Environmental Impacts, Mitigation Measures/Conditions of Approval and Levels of Significance**

Environmental Impact	Level of Significance Before Mitigation	Mitigation Measures/Conditions of Approval	Level of Significance After Mitigation
<b>Impact 5.9-6:</b> The proposed project would not conflict with or obstruct implementation of a water quality control plan or sustainable groundwater management plan.	Less Than Significant	No mitigation measures or conditions of approval are required.	Less Than Significant
<b>5.10 LAND USE AND PLANNING</b>			
<b>Impact 5.10-1:</b> Project implementation would not divide an established community.	No Impact	No mitigation measures or conditions of approval are required.	No Impact
<b>Impact 5.10-2:</b> The Project would not conflict with applicable plans adopted for the purpose of avoiding or mitigating an environmental effect.	Less Than Significant	No mitigation measures or conditions of approval are required.	Less Than Significant
<b>Impact 5.10-3:</b> Project Implementation would not conflict with any applicable habitat conservation plan or natural community conservation plan.	No Impact	No mitigation measures or conditions of approval are required.	No Impact
<b>5.11 NOISE</b>			
<b>Impact 5.11-1:</b> Project implementation would result in long-term operation-related noise that would not exceed the Laguna Niguel CEQA Manual standards.	Less Than Significant	<p><b>Mitigation Measures</b></p> <p>No mitigation measures are required. The City shall require compliance with the following Conditions of Approval:</p> <p>COA N-1 Prior to special events with outdoor amplified music or sound, the event promoter shall obtain a Temporary Use Permit from the City. The Temporary Use Permit shall demonstrate that special event noise will not exceed 65 dBA Leq at off-site residential property lines. All amplified speech, music, or movie nights shall be concluded by 10:00 p.m. Measures to achieve the performance standard of 65 dBA Leq include, but are no limited, to:</p> <ul style="list-style-type: none"> <li>• Orient speakers away from nearby residences;</li> <li>• Position speakers between project buildings or use other shielding and barrier methods to break line-of-sight with nearby residential uses;</li> </ul>	Less Than Significant

# 1. Executive Summary

**Table 1-2 Summary of Environmental Impacts, Mitigation Measures/Conditions of Approval and Levels of Significance**

Environmental Impact	Level of Significance Before Mitigation	Mitigation Measures/Conditions of Approval	Level of Significance After Mitigation
		<ul style="list-style-type: none"> <li>Incorporate bandwidth and/or peak limiters into the sound system;</li> <li>Other speaker angling and directivity techniques.</li> </ul> <p>COA N-2 Operation of the trash compactor shall not occur between the hours of 10:00 pm and 7:00 am.</p>	
<b>Impact 5.11-2:</b> Construction activities would not exceed the City's CEQA Manual construction noise threshold's.	Less Than Significant	No mitigation measures or conditions of approval are required.	Less Than Significant
<b>Impact 5.11-3:</b> The project would not generate groundborne vibration or groundborne noise that would exceed FTA standards.	Less Than Significant	No mitigation measures or conditions of approval are required.	Less Than Significant
<b>Impact 5.11-4:</b> The proximity of the project site to an airport or airstrip would not result in exposure of future residents or workers to excessive airport-related noise.	No Impact	No mitigation measures or conditions of approval are required.	No Impact
<b>5.12 POPULATION AND HOUSING</b>			
<b>Impact 5.12-1:</b> The proposed project would not induce substantial unplanned population growth directly or indirectly.	Less Than Significant	No mitigation measures or conditions of approval are required.	Less Than Significant
<b>Impact 5.12-2:</b> Project implementation would not result in displacing people and/or housing or necessitate the construction of replacement housing elsewhere.	No Impact	No mitigation measures or conditions of approval are required.	No Impact
<b>5.13 PUBLIC SERVICES</b>			
<b>FIRE PROTECTION AND EMERGENCY SERVICES</b>			
<b>Impact 5.13-1:</b> The project would not result in a substantial adverse physical impact associated with the provisions of new or physically altered governmental facilities, need for new or physically altered governmental	Less Than Significant	No mitigation measures or conditions of approval are required.	Less Than Significant

# 1. Executive Summary

**Table 1-2 Summary of Environmental Impacts, Mitigation Measures/Conditions of Approval and Levels of Significance**

Environmental Impact	Level of Significance Before Mitigation	Mitigation Measures/Conditions of Approval	Level of Significance After Mitigation
<p>facilities, the construction of which could cause significant environmental impacts, in order to maintain acceptable service ratios, response times or other performance objectives for fire protection services.</p>			
<b>POLICE PROTECTION</b>			
<p><b>Impact 5.13-2:</b> The project would not result in a substantial adverse physical impact associated with the provisions 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 police protection services.</p>	Less Than Significant	No mitigation measures or conditions of approval are required.	Less Than Significant
<b>SCHOOL SERVICES</b>			
<p><b>Impact 5.13-3:</b> The proposed project would add 75 students to the Capistrano Unified School District; however, the generated students as part of the project would not result in a substantial adverse physical impact associated with the provisions 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, or other performance objectives for school services.</p>	Less Than Significant	No mitigation measures or conditions of approval are required.	Less Than Significant



# 1. Executive Summary

**Table 1-2 Summary of Environmental Impacts, Mitigation Measures/Conditions of Approval and Levels of Significance**

Environmental Impact	Level of Significance Before Mitigation	Mitigation Measures/Conditions of Approval	Level of Significance After Mitigation
<b>LIBRARY SERVICES</b>			
Impact 5.13-4: The project would not result in a substantial adverse physical impact associated with the provisions 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, or other performance objectives for library services.	Less Than Significant	No mitigation measures or conditions of approval are required.	Less Than Significant
<b>5.14 RECREATION</b>			
<b>Impact 5.14-1:</b> The proposed project would increase the use of existing neighborhood and regional parks or other recreational facilities but would not cause substantial physical deterioration of the facilities.	Less Than Significant	No mitigation measures or conditions of approval are required.	Less Than Significant
<b>Impact 5.14-2:</b> The proposed project includes recreational facilities but would not require the construction or expansion of recreational facilities which might have an adverse physical effect on the environment.	Less Than Significant	No mitigation measures or conditions of approval are required.	Less Than Significant
<b>5.15 TRANSPORTATION AND TRAFFIC</b>			
<b>Impact 5.15-1:</b> The proposed project would not conflict with a program, plan, ordinance, or policy addressing the circulation system, including transit, roadway, bicycle, and pedestrian facilities.	Less Than Significant	No mitigation measures or conditions of approval are required.	Less Than Significant
<b>Impact 5.15-2:</b> The proposed project would not conflict or be inconsistent with CEQA Guidelines § 15064.3, subdivision (b).	Less Than Significant	No mitigation measures or conditions of approval are required.	Less Than Significant

# 1. Executive Summary

**Table 1-2 Summary of Environmental Impacts, Mitigation Measures/Conditions of Approval and Levels of Significance**

Environmental Impact	Level of Significance Before Mitigation	Mitigation Measures/Conditions of Approval	Level of Significance After Mitigation
<b>Impact 5.15-3:</b> The proposed project would not substantially increase hazards due to a design feature (e.g., sharp curves or dangerous intersections) or incompatible uses (e.g., farm equipment).	Less Than Significant	No mitigation measures or conditions of approval are required.	Less Than Significant
<b>Impact 5.15-4:</b> The proposed project would not result in inadequate emergency access.	Less Than Significant	No mitigation measures or conditions of approval are required.	Less Than Significant
<b>5.16 TRIBAL CULTURAL RESOURCES</b>			
<b>Impact 5.16-1:</b> The proposed project would not cause a substantial adverse change in the significance of a tribal cultural resource 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). ii) determined by the lead agency to be significant pursuant to criteria in Public Resources Code section 5024.1(c).	Potentially Significant	Mitigation Measure CUL-1 is required. (see Section 5.4, <i>Cultural Resources</i> )	Less Than Significant
<b>5.17 UTILITIES AND SERVICE SYSTEMS</b>			
<b>Impact 5.17-1:</b> Existing facilities would be able to accommodate project-generated wastewater demands.	Less Than Significant	No mitigation measures or conditions of approval are required.	Less Than Significant
<b>Impact 5.17-2:</b> Project-generated wastewater could be adequately treated by the wastewater service provider for the project.	Less Than Significant	No mitigation measures or conditions of approval are required.	Less Than Significant
<b>Impact 5.17-3:</b> Existing facilities would be able to accommodate project-generated water demands.	Less Than Significant	No mitigation measures or conditions of approval are required.	Less Than Significant
<b>Impact 5.17-4:</b> Available water supplies are sufficient to serve the project and reasonably	Less Than Significant	No mitigation measures or conditions of approval are required.	Less Than Significant

## 1. Executive Summary

**Table 1-2 Summary of Environmental Impacts, Mitigation Measures/Conditions of Approval and Levels of Significance**

Environmental Impact	Level of Significance Before Mitigation	Mitigation Measures/Conditions of Approval	Level of Significance After Mitigation
foreseeable future development during normal, dry, and multiple dry years.			
<b>Impact 5.17-5:</b> Existing facilities would be able to accommodate project-generated stormwater flows.	Less Than Significant	No mitigation measures or conditions of approval are required.	Less Than Significant
<b>Impact 5.17-6:</b> Existing facilities would be able to accommodate project-generated solid waste.	Less Than Significant	No mitigation measures or conditions of approval are required.	Less Than Significant
<b>Impact 5.17-7:</b> Existing facilities would comply with related solid waste regulations.	Less Than Significant	No mitigation measures or conditions of approval are required.	Less Than Significant
<b>5.18 WILDFIRE</b>			
<b>Impact 5.18-1:</b> The proposed project would not substantially impair an adopted emergency response plan or emergency evacuation plan.	Less Than Significant	No mitigation measures or conditions of approval are required.	Less Than Significant
<b>Impact 5.18-2:</b> The proposed project would not expose project occupants to pollutant concentrations from a wildfire or the uncontrolled spread of a wildfire due to slope, prevailing winds, and other factors exacerbating wildfire risks.	Less Than Significant	No mitigation measures or conditions of approval are required.	Less Than Significant
<b>Impact 5.18-3:</b> Implementation of the proposed project would not 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.	Less Than Significant	No mitigation measures or conditions of approval are required.	Less Than Significant

# 1. Executive Summary

**Table 1-2 Summary of Environmental Impacts, Mitigation Measures/Conditions of Approval and Levels of Significance**

Environmental Impact	Level of Significance Before Mitigation	Mitigation Measures/Conditions of Approval	Level of Significance After Mitigation
<b>Impact 5.18-4:</b> The proposed 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.	Less Than Significant	No mitigation measures or conditions of approval are required.	Less Than Significant

## 2. Introduction

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### 2.1 PURPOSE OF THE ENVIRONMENTAL IMPACT REPORT

The California Environmental Quality Act (CEQA) requires that all state and local governmental agencies consider the environmental consequences of projects over which they have discretionary authority before taking action on those projects. This Draft Environmental Impact Report (DEIR) has been prepared to satisfy CEQA and the CEQA Guidelines. The Environmental Impact Report (EIR) is the public document designed to provide decision makers and the public with an analysis of the environmental effects of the proposed project, to indicate possible ways to reduce or avoid environmental damage, and to identify reasonable alternatives to the project. The EIR must also disclose significant environmental impacts that cannot be avoided; growth-inducing impacts; effects not found to be significant; and significant cumulative impacts of all past, present, and reasonably foreseeable future projects.

The lead agency means “the public agency which has the principal responsibility for carrying out or approving a project which may have a significant effect upon the environment” (Guidelines Section 21067). The City of Laguna Niguel (City) has the principal responsibility for approval of the Laguna Niguel City Center Mixed Use Project (project). For this reason, the City is the CEQA lead agency for this project.

The intent of the DEIR is to provide sufficient information on the potential environmental impacts of the proposed project to allow the City to make an informed decision in considering approval of the project. Specific discretionary actions to be reviewed by the City are described in Section 3.4, *Intended Uses of the EIR*.

This DEIR has been prepared in accordance with requirements of the:

- California Environmental Quality Act (CEQA) of 1970, as amended (Public Resources Code, Section 21000 et seq.)
- State Guidelines for the Implementation of the CEQA of 1970 (CEQA Guidelines), as amended (California Code of Regulations, Section 15000 et seq.)
- Laguna Niguel CEQA Manual, as amended.

The overall purpose of this DEIR is to inform the lead agency, responsible agencies, decision makers, and the general public about the environmental effects of the development and operation of the proposed project. This DEIR addresses effects that may be significant and adverse; evaluates alternatives to the project; and identifies mitigation measures to reduce or avoid adverse effects.

## 2. Introduction

### 2.2 NOTICE OF PREPARATION AND SCOPING MEETING

The City determined that an EIR would be required for this project and issued a Notice of Preparation (NOP) on November 1, 2019 (see Appendix A). A scoping meeting was held on November 13, 2019, to elicit comments on the scope of the DEIR. Table 2-1 summarizes the comments received during the scoping meeting and identifies the section(s) of this DEIR where the issues are addressed.

**Table 2-1 Scoping Meeting Comments Summary**

Commenter	Summary of Comments	Issue Addressed In:
<b>Written Comments</b>		
Beatrice Dargavel	<ul style="list-style-type: none"> <li>Noted that the proposed plan is not a Town Center but a housing project with a parking structure. Concerned about the lack of recreational areas and open space for the community to enjoy.</li> <li>Stated that traffic and congestion will increase due to the proposed project.</li> </ul>	<ul style="list-style-type: none"> <li>Chapter 3, <i>Project Description</i></li> <li>Section 5.14, <i>Recreation</i></li> <li>Section 5.15, <i>Transportation</i></li> </ul>
Janet Jacob	<ul style="list-style-type: none"> <li>Concerned about the traffic impact and population increase associated with 275 new apartments.</li> <li>Noted that the modern look of the buildings is not conducive to the current aesthetic of the city.</li> <li>Asked whether low-income apartments are included in the proposed project.</li> </ul>	<ul style="list-style-type: none"> <li>Chapter 3, <i>Project Description</i></li> <li>Section 5.1, <i>Aesthetics</i></li> <li>Section 5.15, <i>Transportation</i></li> </ul>
<b>Oral Comments</b>		
Irene Bowie	<ul style="list-style-type: none"> <li>Concerned about traffic increasing on Pacific Island Drive.</li> <li>Concerned about noise impacts associated with demolition and construction, as well as operational noise associated with breweries, restaurants, and outdoor activities.</li> <li>Requested more information regarding alternatives and wants assurance that alternatives will be considered seriously.</li> <li>Concerned with air quality impacts associated with demolition and construction.</li> </ul>	<ul style="list-style-type: none"> <li>Section 5.2, <i>Air Quality</i></li> <li>Section 5.11, <i>Noise</i></li> <li>Section 5.15, <i>Transportation</i></li> <li>Chapter 7, <i>Alternatives</i></li> </ul>
Peggy Schwartz	<ul style="list-style-type: none"> <li>Stated that the existing library has 500 to 1,000 visitors per day and is concerned about pedestrian traffic from the proposed library to and from the multistory garage structure.</li> <li>Noted that the present library has eight parking spots and two dedicated disabled spots right next to the library building. Requested that the new library have parking spots adjacent to the building.</li> <li>Stated that the current library has 93 parking spots and that the developers need to make sure adequate parking is provided for library patrons.</li> <li>Requested that safe pedestrian crossings be provided for seniors and families with young children so that library attendance is not affected.</li> </ul>	<ul style="list-style-type: none"> <li>Chapter 3, <i>Project Description</i></li> <li>Section 5.15, <i>Transportation</i></li> </ul>

## 2. Introduction

**Table 2-1 Scoping Meeting Comments Summary**

Commenter	Summary of Comments	Issue Addressed In:
Janice Sherrets	<ul style="list-style-type: none"> <li>Noted that seniors and families with young children might find it unsafe to cross a street to get to the library from the proposed parking structure and that patrons may choose to go elsewhere. Requested that parking be provided close to the library.</li> </ul>	<ul style="list-style-type: none"> <li>Section 5.15, <i>Transportation</i></li> </ul>
Paul Williams	<ul style="list-style-type: none"> <li>Noted that his concerns were not related to the EIR and did not raise any issues.</li> </ul>	
Robert Davy	<ul style="list-style-type: none"> <li>Requested that the library be addressed in the EIR. The discussion should include a justification for replacing the current building and an interim plan for the construction phase.</li> <li>Asked how many residents and cars would be associated with the proposed multifamily dwelling units.</li> </ul>	<ul style="list-style-type: none"> <li>Section 5.12, <i>Population and Housing</i></li> <li>Section 5.13, <i>Public Services</i></li> <li>Section 5.15, <i>Transportation</i></li> </ul>
Julie Davy	<ul style="list-style-type: none"> <li>Concerned about air quality impacts for the two- to three-month construction phase.</li> <li>Asked if noise from live events would affect people using the library and nearby residents.</li> <li>Noted that the aesthetics of the project does not live up to the city's standards and that she does not like the four-story residential building.</li> </ul>	<ul style="list-style-type: none"> <li>Section 5.1, <i>Aesthetics</i></li> <li>Section 5.2, <i>Air Quality</i></li> <li>Section 5.11, <i>Noise</i></li> </ul>
John Lovegreen	<ul style="list-style-type: none"> <li>Stated that traffic is increasing on Alicia Parkway and Crown Valley Parkway and requested that updated traffic counts be conducted for the proposed project.</li> <li>Requested that left turn into the proposed project be studied in the EIR.</li> <li>Requested that more pedestrian-friendly transportation options be included in the proposed project and that a pedestrian bridge be considered.</li> <li>Noted that there is no safe way to bike around the area.</li> <li>Requested that wildfire be studied in the EIR because of the slopes that are close to the proposed site.</li> <li>Inquired whether water use and availability would be addressed in EIR.</li> <li>Asked that water use and energy efficiency be addressed in the EIR.</li> <li>Requested lighting safety measures are priority for parking structures. Requested that buildings be sustainable and electricity demand be considered.</li> <li>Asked whether proposed four-story buildings are within the city's 35-foot height limit.</li> <li>Noted that he concurred with previous testimony regarding library.</li> </ul>	<ul style="list-style-type: none"> <li>Section 5.1, <i>Aesthetics</i></li> <li>Section 5.5, <i>Energy</i></li> <li>Section 5.15, <i>Transportation</i></li> <li>Section 5.17, <i>Utilities and Service Systems</i></li> <li>Section 5.18, <i>Wildfire</i></li> </ul>

## 2. Introduction

**Table 2-1 Scoping Meeting Comments Summary**

Commenter	Summary of Comments	Issue Addressed In:
Peter Burdon	<ul style="list-style-type: none"> <li>• Concerned about noise, fumes, and view impacts from the three- to four-story parking structure that would include 600 parking spaces. He said this structure would be approximately 150 feet from his rear patio.</li> <li>• Noted that the Old Courthouse used to have HVAC systems on the roof and the noise would carry to residences to the west. Asked whether the parking structure would include rooftop HVAC equipment and whether noise could impact nearby residents.</li> <li>• Concerned about the number of residential units and their impact on water, sewage, noise, and traffic.</li> </ul>	<ul style="list-style-type: none"> <li>• Section 5.2, <i>Air Quality</i></li> <li>• Section 5.11, <i>Noise</i></li> <li>• Section 5.15, <i>Transportation</i></li> <li>• Section 5.17, <i>Utilities and Service Systems</i></li> </ul>
Margarette Waldoski	<ul style="list-style-type: none"> <li>• Expressed overall support for the development.</li> <li>• Noted that traffic on Pacific Island Drive has increased dramatically over the past 20 years and is concerned about speeding on this road. Requested a stop light on Pacific Island Drive at the intersection of Club House Drive.</li> <li>• Asked whether the entrance to the proposed project from Pacific Island Drive is only for the residential area or the whole project.</li> <li>• Inquired whether the proposed apartments would be rental units and whether low-income housing is proposed.</li> </ul>	<ul style="list-style-type: none"> <li>• Chapter 3, <i>Project Description</i></li> <li>• Section 5.15, <i>Transportation</i></li> </ul>
Jennifer Barb	<ul style="list-style-type: none"> <li>• Asked if resources for the OC Sheriff's Department would be increased to cater to the proposed project. Concerned about speeding violations and drunk drivers.</li> <li>• Concerned about the safety of her young children when crossing the street to go to the library from the parking structure.</li> <li>• Requested that the time the library is closed be minimized.</li> </ul>	<ul style="list-style-type: none"> <li>• Section 5.13, <i>Public Services</i></li> <li>• Section 5.15, <i>Transportation</i></li> </ul>

Comments are organized in order of testimony.

In addition to the scoping meeting, the public was provided with a 30-day public review period to comment on the NOP—from November 4, 2019, to December 4, 2019. Table 2-2 compiles the comments received from commenting agencies/persons during the NOP process and identifies the section(s) of this DEIR where the issues are addressed. All NOP comments received during the public review period are in Appendix B.



## 2. Introduction

**Table 2-2 NOP Written Comments Summary**

Commenting Agency/Person	Letter Dated	Summary of Comments	Issue Addressed In:
<b>Agencies</b>			
Native American Heritage Commission  Andrew Green Staff Services Analyst	9/14/19	<ul style="list-style-type: none"> <li>Summarizes SB 18 and AB 52 requirements applicable to the proposed project.</li> </ul>	<ul style="list-style-type: none"> <li>Section 5.4, <i>Cultural Resources</i></li> <li>Section 5.16, <i>Tribal Cultural Resources</i></li> </ul>
Department of Fish and Wildlife  Gail Sevrens Environmental Program Manager South Coast Region	9/26/2019	<ul style="list-style-type: none"> <li>Recommends that the Draft EIR analyze how changes in lands use would be implemented in the walkable open spaces and provides guidance on minimizing the edge-effect and protecting the riparian corridor.</li> <li>Requests that the Draft EIR describes and identifies defensible space within the proposed project.</li> <li>Mentions an unnamed tributary and associated riparian habitat that appear to bound the project on the west and south sides.</li> <li>Opposes development that would reduce wetland acreage or wetland habitat value. Recommends mitigation measures to compensate for impacts to mature riparian corridors and wildlife corridors.</li> <li>Summarizes the requirements of the California Endangered Species Act applicable to the proposed project.</li> <li>Requests a description of the purpose and need for the proposed project and a range of feasible alternatives.</li> <li>Requests that a complete assessment of the flora and fauna within and adjacent to the project area be included in the Draft EIR.</li> <li>States that the draft EIR should include the analyses of the potential project-related impacts to biological resources. Mitigation measures for adverse direct and indirect impacts to sensitive plants, animals, and habitats should also be discussed.</li> <li>States that for proposed preservation and/or restoration, the Draft EIR should include measures to perpetually protect the targeted habitat values.</li> <li>Recommends that measures be taken to avoid project impacts to nesting birds.</li> <li>States that restoration and revegetation plans should be prepared by persons with expertise in southern California ecosystems and native plant revegetation techniques.</li> <li>Provides recommendation for mitigating impacts of the Polyphagous and Kuroshio shot hole borers.</li> </ul>	<ul style="list-style-type: none"> <li>Section 5.3, <i>Biological Resources</i></li> <li>Section 5.18, <i>Wildfire</i></li> <li>Section 7, <i>Alternatives</i></li> </ul>
Department of Toxic Substances Control  Chia Rin Yen Environmental Scientist	9/27/2019	<ul style="list-style-type: none"> <li>Requests that the Draft EIR identify and determine whether current or historical uses at the project site may have resulted in any release of hazardous wastes/substances and cause any air emission during the proposed project's operational phase.</li> </ul>	<ul style="list-style-type: none"> <li>Section 5.8, <i>Hazards and Hazardous Materials</i></li> </ul>

## 2. Introduction

**Table 2-2 NOP Written Comments Summary**

Commenting Agency/Person	Letter Dated	Summary of Comments	Issue Addressed In:
Brownfields Restoration and School Evaluation Branch Site Mitigation and Restoration Program		<ul style="list-style-type: none"> <li>If the site was formerly used for agricultural purposes and a field investigation is needed, the investigation and/or remediation shall be conducted under a workplan approved and overseen by a regulatory agency that has jurisdiction to oversee hazardous substance cleanup.</li> <li>Requests that an investigation be conducted before any buildings or other structures are demolished. The investigation needs to assess the presence of hazardous chemical such as lead-based paints, mercury, and asbestos. Proper precautions need to be taken if such chemicals are detected.</li> </ul>	
City of Mission Viejo Public Works Department – Traffic  Philip Nitollama, Transportation Engineer	12/2/2019	<ul style="list-style-type: none"> <li>Requests that the traffic impact analysis (TIA) analyze the near term and long-range buildout conditions for the following intersections:                             <ol style="list-style-type: none"> <li>Interstate 5 Southbound Ramps and Crown Valley Parkway</li> <li>Interstate 5 Northbound Ramps and Crown Valley Parkway</li> <li>Crown Valley Parkway and Kaleidoscope</li> </ol> </li> <li>States that the level of service analysis shall include both delay (HCM methodology) and volume-to-capacity (V/C) ratio evaluation. A queuing analysis shall also be incorporated.</li> </ul>	<ul style="list-style-type: none"> <li>Section 5.15, <i>Transportation</i></li> <li>Appendix L, <i>Traffic Impact Analysis</i></li> </ul> <p>*Note that pursuant to SB 743, intersection operation/Level of Service is no longer a CEQA issue and therefore not addressed in this EIR.</p>
Juaneno Band of Mission Indians  Joyce Stanfield Perry Tribal Manager, Cultural Resource Director	12/2/2019	<ul style="list-style-type: none"> <li>Noted that once the Draft EIR has been prepared, the tribe will be interested in its results and will provide comments at that time.</li> <li>Requests to continue to keep the tribe informed on this project.</li> </ul>	Comment noted.
Orange County Traffic Authority (OCTA)  Dan Phu Manager, Environmental Programs	12/4/2019	<ul style="list-style-type: none"> <li>States that the figure attached to the NOP incorrectly identifies Pacific Island Drive as Pacific Land Drive</li> <li>Notes that Crown Valley Parkway is part of the Congestion Management Program Highway System and should be analyzed as such for potential traffic impacts.</li> </ul>	<ul style="list-style-type: none"> <li>Section 5.15, <i>Transportation</i></li> </ul>
Department of Transportation  Scott Shelley Branch Chief, Regional IGR Transit Planning, District 12	12/4/2019	<ul style="list-style-type: none"> <li>Requests that the Draft EIR include a Traffic Impact Study to analyze short- and long-term impacts to the State Highway System.</li> <li>Requests that the Draft EIR discuss the impact of the proposed project on active transportation.</li> <li>Recommends parking and loading dock measures to address the impacts of delivery trucks.</li> <li>States that project work proposed in the vicinity of the State right-of-way requires an encroachment permit.</li> </ul>	<ul style="list-style-type: none"> <li>Section 5.15, <i>Transportation</i></li> </ul>

## 2. Introduction

**Table 2-2 NOP Written Comments Summary**

Commenting Agency/Person	Letter Dated	Summary of Comments	Issue Addressed In:
South Coast Air Quality Management District  Lijin Sun, J.D. Program Supervisor, CEQA IGR Planning, Rule Development and Area Sources	12/6/2019	<ul style="list-style-type: none"> <li>• Recommends that the South Coast AQMD's <i>CEQA Air Quality Handbook</i> be used to conduct the air quality analyses, including the regional and localized significance thresholds developed by the South Coast AQMD.</li> <li>• States that the lead agency should identify any potential air quality impacts that could occur from all phases of the proposed project and all air pollutant sources related to the proposed project.</li> <li>• Recommends that the lead agency perform a mobile source health risk assessment in the event that the proposed project generates or attracts vehicular trips, especially heavy-duty diesel-fueled vehicles.</li> <li>• Points out that guidance on siting incompatible land uses can be found in the California Air Resources Board's <i>Air Quality and Land Use Handbook</i>.</li> <li>• Lists several resources that are available to assist the lead agency with identifying mitigation measures for the proposed project.</li> </ul>	<ul style="list-style-type: none"> <li>• Section 5.2, <i>Air Quality</i></li> </ul>
<b>Individuals</b>			
Paul Del Bene	9/8/19	<ul style="list-style-type: none"> <li>• Stated objection to demolishing the library and including a grocery site within the proposed project.</li> </ul>	Comment noted.
		<ul style="list-style-type: none"> <li>• Concerned about traffic and congestion impacts.</li> </ul>	<ul style="list-style-type: none"> <li>• Section 5.15, <i>Transportation</i></li> </ul>
Carol Mailett	9/9/19	<ul style="list-style-type: none"> <li>• Concerned about traffic, congestion, and air quality issues.</li> </ul>	<ul style="list-style-type: none"> <li>• Section 5.2, <i>Air Quality</i></li> <li>• Section 5.15, <i>Transportation</i></li> </ul>
Cassandra Ondryas	9/12/19	<ul style="list-style-type: none"> <li>• Concerned about safety and crime in the proposed parking structure.</li> </ul>	<ul style="list-style-type: none"> <li>• Comment noted. Not a CEQA issue.</li> </ul>
		<ul style="list-style-type: none"> <li>• Concerned about pedestrian safety.</li> </ul>	<ul style="list-style-type: none"> <li>• Section 5.15, <i>Transportation</i></li> </ul>
Charlie Maerzke	9/12/19	<ul style="list-style-type: none"> <li>• Concerned about hazardous materials, pedestrian access, air quality, public services, construction noise, and utility services impacts.</li> </ul>	<ul style="list-style-type: none"> <li>• Section 5.2, <i>Air Quality</i></li> <li>• Section 5.8, <i>Hazards and Hazardous Materials</i></li> <li>• Section 5.11, <i>Noise</i></li> <li>• Section 5.13, <i>Public Services</i></li> <li>• Section 5.15, <i>Transportation</i></li> <li>• Section 5.17, <i>Utilities and Service Systems</i></li> </ul>
Joseph Dreifus	12/3/2019	<ul style="list-style-type: none"> <li>• Concerned about traffic and congestion impacts.</li> </ul>	<ul style="list-style-type: none"> <li>• Section 5.15, <i>Transportation</i></li> </ul>

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**Table 2-2 NOP Written Comments Summary**

Commenting Agency/Person	Letter Dated	Summary of Comments	Issue Addressed In:
Kiarash Kalantar	12/4/2019	<ul style="list-style-type: none"> <li>• Recommends obtaining LEED certification for the project.</li> <li>• Suggests integrating public and social requirements into the early predesign phase of the project.</li> <li>• Recommends adding a “Green Energy &amp; Recycling” exhibition center to the proposed project to enhance local culture, a healthier lifestyle, and a cleaner environment.</li> </ul>	<ul style="list-style-type: none"> <li>• These comments do not relate directly to the EIR. Please see Section 5.7 <i>Greenhouse Gas Emissions</i> for analysis and mitigation to reduce GHG.</li> </ul>

All comments are organized based on date received.

The NOP process helps determine the scope of the environmental issues to be addressed in the DEIR. Based on this process, certain environmental categories were identified as having the potential to result in significant impacts. Issues considered potentially significant are addressed in this DEIR, but issues identified as less than significant or of no impact are addressed in Chapter 8, *Impacts Found Not to Be Significant*.

### 2.3 SCOPE OF THIS DEIR

The scope of the DEIR was determined based on the City’s preliminary analysis of the project that an EIR is required (as noted in the NOP), comments received in response to the NOP, and comments received at the scoping meeting conducted by the City. Pursuant to Sections 15126.2 and 15126.4 of the CEQA Guidelines, the DEIR should identify any potentially significant adverse impacts and recommend mitigation that would eliminate or reduce these impacts to less than significant levels.

#### 2.3.1 Impacts Considered Less Than Significant

As detailed in Chapter 8, *Impacts Found Not to Be Significant*, the City determined that the following environmental impact categories were not significantly affected by or did not affect the proposed project.

- Agriculture and Forestry Resources
- Mineral Resources

#### 2.3.2 Potentially Significant Adverse Impacts

The City determined that 18 environmental factors have potentially significant impacts if the proposed project is implemented. All but one of these potential impacts can be mitigated to a level of less than significant.

- Aesthetics
- Air Quality
- Biological Resources
- Cultural Resources
- Energy
- Geology and Soils

## 2. Introduction

- Greenhouse Gas Emissions
- Hazards and Hazardous Materials
- Hydrology and Water Quality
- Land Use and Planning
- Noise
- Population and Housing
- Public Services
- Recreation
- Transportation
- Tribal Cultural Resources
- Utilities and Service Systems
- Wildfire

### 2.3.3 Unavoidable Significant Adverse Impacts

This DEIR identifies one environmental topical area with significant and unavoidable adverse impacts, as defined by CEQA, which would result from implementation of the proposed project. Unavoidable adverse impacts may be considered significant on a project-specific basis, cumulatively significant, and/or potentially significant. The City must prepare a “statement of overriding considerations” before it can approve the project, attesting that the decision-making body has balanced the benefits of the proposed project against its unavoidable significant environmental effects and has determined that the benefits outweigh the adverse effects, and therefore the adverse effects are considered acceptable. The impact that was found to be significant and unavoidable in the DEIR is:

#### Greenhouse Gas Emissions

- **Impact 5.7-1:** Development of the proposed project would result in an increase of greenhouse gas (GHG) emissions that would exceed South Coast AQMD’s significance criteria. The project is estimated to generate 11,651 metric tons of CO<sub>2</sub>-equivalent annually from operational activities and would exceed South Coast AQMD’s bright-line screening threshold of 3,000 metric tons of CO<sub>2</sub>-equivalent.

The City’s Transportation Demand Management (TDM) requirements and Mitigation Measures GHG-1 through GHG-3 would reduce GHG emissions by increasing the use of alternative-fueled vehicles, nonmotorized transportation, and energy-efficient appliances beyond what is required by Title 24. The TDM program and mitigation measures ensure that GHG emissions from the buildout of the proposed project would be minimized. However, additional federal, state, and local measures would be necessary to reduce GHG emissions from the proposed project to meet the long-term GHG reduction goals under SB 32. In addition, the project will comply with Municipal Code section 9-1-102 et seq., which is designed to reduce vehicle travel and associated GHG emissions. The project has no control over state and regional solutions to reduce mobile emissions, and the use of mass transit, alternative modes of transportation, and electric vehicles cannot be estimated with certainty. There are no additional feasible and quantifiable means

## 2. Introduction

of reducing GHG emissions below the level of significance. The project would result in a substantial increase in GHG emissions, and Impact 5.7-1 would remain significant and unavoidable..

### 2.4 INCORPORATION BY REFERENCE

Some documents are incorporated by reference into this DEIR, consistent with Section 15150 of the CEQA Guidelines, and they are available for review at the City of Laguna Niguel Community Development Department, 30111 Crown Valley Parkway, Laguna Niguel, CA 92677.

- **Laguna Niguel General Plan.** The Laguna Niguel General Plan serves as the major blueprint for directing growth in Laguna Niguel and regulates the existing land uses on the proposed project site. The General Plan analyzes existing conditions in the city, including physical, social, cultural, and environmental resources and opportunities. The General Plan also looks at trends, issues, and concerns that affect the region, includes City goals and objectives, and provides policies to guide development and change.
- **Laguna Niguel Municipal Code.** The Laguna Niguel Municipal Code is a set of laws governing the City and covers all aspects of City regulations, including zoning, permitted uses and standards, and various development requirements. Zoning district standards are also included in the code. Where applicable, code sections are referenced throughout the DEIR.

In each instance where a document is incorporated by reference for purposes of this report, the DEIR shall briefly summarize the incorporated document or briefly summarize the incorporated data if the document cannot be summarized. Each section provides a complete list of references used in preparing this DEIR.

### 2.5 FINAL EIR CERTIFICATION

This DEIR is being circulated for public review for 45 days. Interested agencies and members of the public are invited to provide written comments on the DEIR to the City address shown on the title page of this document. Upon completion of the 45-day review period, the City will review all written comments received and prepare written responses for each. A Final EIR (FEIR) will incorporate the received comments, responses to the comments, and any changes to the DEIR that result from comments. The FEIR will be presented to the Laguna Niguel City Council for potential certification as the environmental document for the project. All persons who comment on the DEIR will be notified of the availability of the FEIR and the date of the public hearings before the Planning Commission and City Council.

The DEIR is available to the general public for review at these locations:

- City of Laguna Niguel Community Development Department – 30111 Crown Valley Parkway, Laguna Niguel, CA 92677
- Laguna Niguel Library – 30341 Crown Valley Pkwy, Laguna Niguel, CA 92677
- City of Laguna Niguel Community Development Department Website – [www.cityoflagunaniguel.org/CityCenterDEIR](http://www.cityoflagunaniguel.org/CityCenterDEIR)

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### 2.6 MITIGATION MONITORING

Public Resources Code, Section 21081.6, requires that agencies adopt a monitoring or reporting program for any project for which it has made findings pursuant to Public Resources Code 21081 or adopted a Negative Declaration pursuant to 21080(c). Such a program is intended to ensure the implementation of all mitigation measures adopted through the preparation of an EIR or Negative Declaration.

The Mitigation Monitoring Program for the proposed project will be completed in conjunction with the Final EIR, prior to consideration of the project by the Laguna Niguel City Council.

## 2. Introduction

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## 3. Project Description

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### 3.1 PROJECT LOCATION

The City of Laguna Niguel (City) is in southern Orange County of southern California. It is bordered by Laguna Hills and Aliso Viejo to the north, San Juan Capistrano and Mission Viejo to the east, Dana Point to the south, and Laguna Beach and unincorporated Orange County (Aliso and Wood Canyons Wilderness Park) to the west.

Figure 3-1, *Regional Location*, provides a visual of the regional access to the City from various freeways. East of Laguna Niguel, Interstate 5 (I-5) runs north-south, connecting the City to the majority of southern California. State Route 73 (San Joaquin Hills Transportation Corridor) runs along the northern City limits and connects with I-5 in the northeastern portion of Laguna Niguel. Highway 1, also known as East/West Coast Highway, runs near the southern boundary of Laguna Niguel and connects the City to the Pacific coast.

The project site (Assessor's Parcel Number 656-242-18) is approximately 25 acres, is owned by the County of Orange, and would be leased to Laguna Niguel Town Center Partners LLC to develop the proposed mixed-use project. The project site consists of the South County Justice Center (closed in 2008), the Orange County Library, a county maintenance yard, Orange County Fire Station No. 5, and undeveloped land. The site is immediately adjacent to City Hall. The site is generally bounded by Pacific Island Drive to the north, Alicia Parkway to the east, Crown Valley Parkway to the south, and multifamily residential communities to the west (e.g., Niguel Summit Apartments, El Niguel Terrace townhomes, and Charter Terrace single-family homes) (see Figures 3-2, *Local Vicinity*, and 3-3, *Aerial Photograph*).

### 3.2 STATEMENT OF OBJECTIVES

Objectives for the Laguna Niguel City Center Mixed Use Project (proposed project) will aid decision makers in their review of the project and associated environmental impacts:

1. Create a dynamic mix of commercial uses, including retail, restaurant, creative office, health/wellness, and civic uses which will be unique and distinct from other commercial projects in the City and will be complemented by highly amenitized residential apartment buildings culminating in a vibrant city center in the heart of Laguna Niguel.
2. Create a financially feasible project that promotes the City's economic well-being with (i) a commercial core that generates local tax revenue and provides new jobs; and (ii) a residential component that creates housing options for existing and new residents to support local businesses, including dining, shopping, office, and entertainment venues.
3. Replace the existing Laguna Niguel library with a larger, innovative, and architecturally significant library with modern programming and technologies to better serve the residents of Laguna Niguel for decades to

### 3. Project Description

come. The new library will be an integral part of the project and designed to facilitate connections to and integration with surrounding retail, office, and residential uses.

4. Incorporate a pedestrian-oriented outdoor town green and gathering place for the community connected by an integrated walkable network of passive and active pedestrian-oriented paseos and open spaces weaving through the retail and commercial core.
5. Provide investment and redevelopment of underutilized property within the Town Center Opportunity Area by replacing the vacant South County Justice Center and undeveloped county land with a project that would generate new sources of property and sales tax revenue for the City and County.
6. Create a visually impactful, architecturally distinct design and retailing experience that will attract differentiated retail, restaurant and commercial tenants to the City of Laguna Niguel and provide unique live, work, and play opportunities for residents of Laguna Niguel and surrounding communities.
7. Improve and enhance the City's profile and amenities for residents by providing a unique mixed-use environment not seen elsewhere in South Orange County that will attract differentiated retail and commercial tenants and a unique, high-quality, pedestrian-oriented commercial center including a state-of-the-art library that the community can enjoy.

### 3.3 PROJECT CHARACTERISTICS

“Project,” as defined by the CEQA Guidelines, means

... the whole of an action, which has a potential for resulting in either a direct physical change in the environment, or a reasonably foreseeable indirect physical change in the environment, and that is any of the following: (1)...enactment and amendment of zoning ordinances, and the adoption and amendment of local General Plans or elements thereof pursuant to Government Code Sections 65100-65700. (14 Cal. Code of Reg. 15378[a])

#### 3.3.1 Description of the Project

The general vision of the Laguna Niguel City Center Mixed Use Project (proposed project) is to create a “downtown” environment that features specialty retail, restaurants, office, community-oriented event/programmable space, integrated residential apartment homes, a new community library, and extensive walkable open spaces, paseos, and plazas.

Approximately half of the property is currently undeveloped land and the remainder of the site is developed with civic uses owned by the County of Orange, including the County of Orange Vehicle Maintenance Facility along Pacific Island Drive in the northwest corner of the site, the abandoned courthouse and district attorney offices along Alicia Parkway on the east side of the site, and the county library in the southwest corner. The maintenance facility and the courthouse would be demolished as part of the project. The existing library would be demolished and replaced as part of the project. The Laguna Niguel Civic Center (owned by the City) is adjacent to the site and not a part of the proposed project. Orange County Fire Authority (OCFA) Fire Station #5 (owned by OCFA) is part of the proposed project and included on the proposed vesting tentative tract map (VTTM) as a separate lot; site improvements are planned on the OCFA property.

Figure 3-1 - Regional Location  
3. Project Description



Note: Unincorporated areas are shown in white.

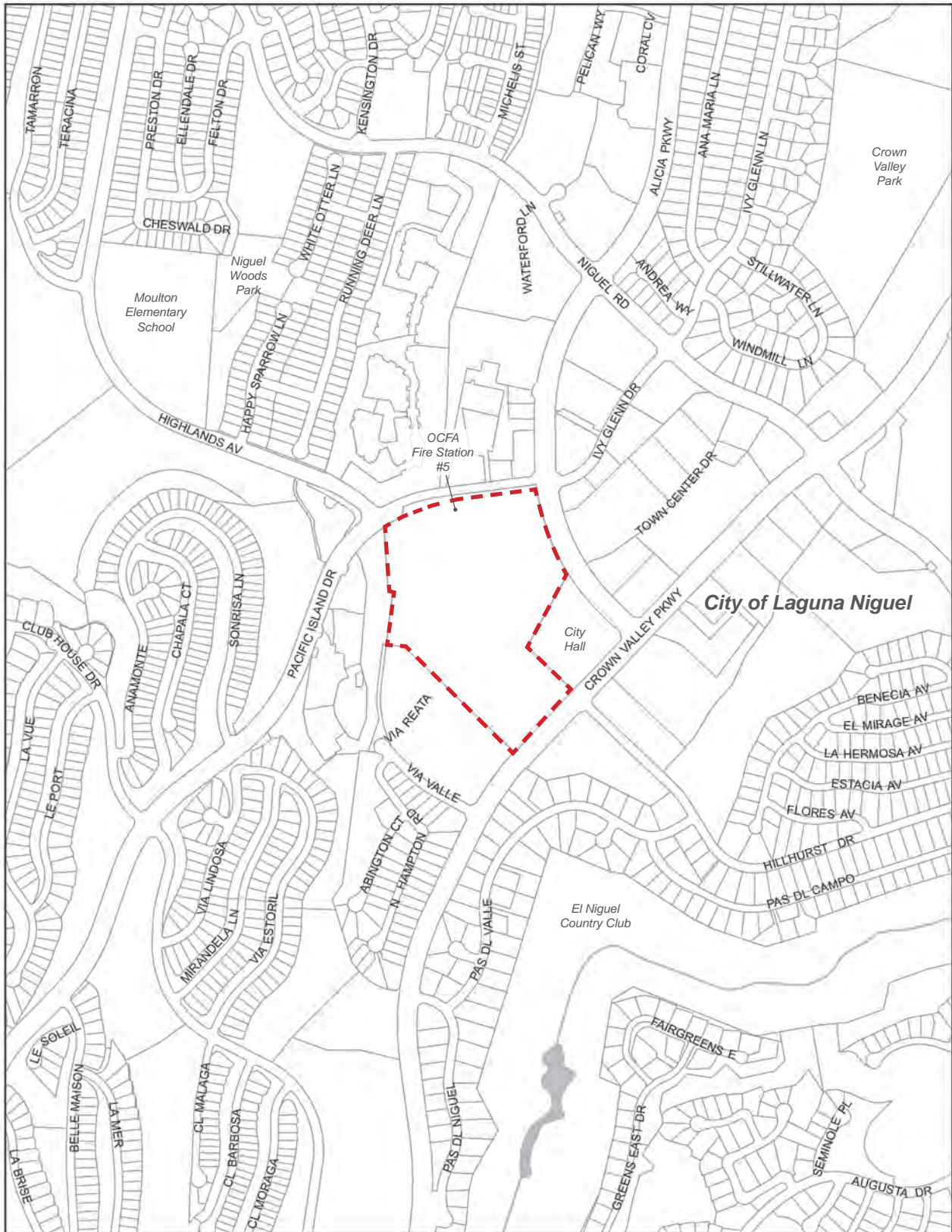


Source: USGS, NOAA, 2016

### 3. Project Description

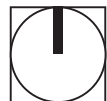
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Figure 3-2 - Local Vicinity  
3. Project Description



--- Project Boundary

0 500  
Scale (Feet)



Source: USGS, NOAA, 2016

### 3. Project Description

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Figure 3-3 - Aerial Photograph  
3. Project Description



--- Project Boundary

0 350  
Scale (Feet)



Source: Nearmap, 2019

### 3. Project Description

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### 3. Project Description

The proposed project would include the development of approximately 175,000 square feet of commercial and civic uses and 275 multifamily residential units. The commercial component would include approximately 158,581 square feet of commercial space with a wide range of uses, such as restaurants, retail shops, health/wellness-focused retail and medical office, and creative office space. The civic space consists of a new, larger, approximately 16,290-gross-square-foot county library with approximately 13,100 useable square feet plus adjacent outdoor programmable space of approximately 2,600 square feet; this would replace the existing, approximately 14,400-gross-square-foot library, which has approximately 11,100 useable square feet and limited outdoor space. The residential component of the proposed project would consist of two separate and distinct apartment buildings—one 200-unit apartment building and one 75-unit apartment building. On-site parking accommodations for the proposed project would include a combination of surface and structured parking for the commercial/civic uses and a mixture of surface parking; private garage; and on-grade, multilevel garage for the residential component. The development vision includes a focus on creating a landmark project for the City with a distinct architectural design blending traditional styles with modern elements. The project applicant will pursue Leadership in Energy and Environmental Design (LEED) certification for the commercial and residential component of the project. The proposed project's site plan is shown on Figure 3-4.

#### 3.3.1.1 PROPOSED PLAN

As shown on Figure 3-4, *Proposed Site Plan*, the proposed project would include development of approximately 175,000 square feet of new architecturally distinctive commercial space (restaurant, retail, office and library), 275 residential apartments in two separate locations, and extensive outdoor courtyards and community gathering areas. In addition, the existing County of Orange Public Library with approximately 14,400 gross square feet and 11,100 useable square feet would be removed and rebuilt with an approximately 16,290-gross-square-foot library with approximately 13,100 useable square feet and would be located as an integral part of the commercial core of the project. The project embraces the natural topography of the land, which gently slopes upward from Crown Valley Parkway to Pacific Island Drive. The proposed project is organized into the following main development areas, all of which are interconnected by shared pedestrian gardens and walkways.

- **Daily Needs Retail.** The Crown Valley entrance would include approximately 19,920 square feet of daily needs retail and convenient surface parking for uses such as a gourmet market, specialty foods, culinary supplies, and restaurants. All buildings would be single story.
- **Retail Village Core.** The Crown Valley and Alicia Parkway entrances would converge at the main retail village. The overall village comprises approximately 57,210 square feet of single-story retail built around a central open space plaza area (Town Green), all linked by landscaped paseos that would feature shade trees, outdoor lighting, soft seating areas, gardens, and water features. The buildings are designed as single story with patios that open onto the Town Green area. The Town Green would be open to the public and be improved with outdoor performance/event spaces and other spaces to be programmed by the applicant and others for open air farmers markets, art shows, live music, food and wine festivals, yoga in the park, outdoor movie nights, and more. Potential tenant uses in the Retail Village Core include restaurants; markets; wine stores; breweries; cooking schools; independent-chef-driven food concepts and restaurants; hand-crafted coffee house; specialty markets such as wine, cheese stores, and butchery; retail shops; small artisanal food purveyors; kiosks; educational space; and performance/event space. The buildings would be

### 3. Project Description

architecturally distinctive and designed with a natural material such as wood, stone, and plaster siding; crafted storefronts featuring wood and steel windows with fabric awnings and distinctive handcrafted signage; and gabled roofs with standing-seam metal and cedar-shake roofs. Many of the restaurants would feature exposed beamed ceilings, open kitchens, and exterior patio seating areas with landscaped gardens, herb gardens, wood and steel trellis, canvas awnings or umbrellas, fire pits, water features, and wall-mounted fountains.







- **Health/Wellness-Focused Retail and Medical Office.** Directly adjacent to the retail village would be a two-story building totaling 37,899 square feet dedicated to health and wellness that provides for uses such as spin classes, yoga, Pilates, cross-training, stretch/meditation classes, medical office, physical therapy, health food cafes, and active lifestyle shops.
- **Creative Office Space.** Directly adjacent to the retail village would be two creative office buildings totaling 43,522 square feet in two- and three-story structures. The buildings would feature creative spaces with high loft ceilings, skylights, exposed plenum mechanical systems, operable windows, and overhead vertical-lift exterior doors that open to outdoor patios offering soft seating areas with indoor-outdoor collaborative workspaces and recreation areas. The office spaces would support daytime workspace that would benefit from walkability to retail, restaurant, and civic spaces as well as residential housing, to complete a fully integrated live-work-play project. The two- and three-story office component is a critical driver in providing an active daytime population to support the proposed commercial uses. The buildings are designed with modern, open floor plans, allowing employees to take a break from their daily work to recharge among open space, shops, and dining options.

**Library.** The existing Laguna Niguel branch of the Orange County Library system would be replaced with a larger, architecturally significant and modern new library. The existing library is approximately 14,400 gross square feet while the project's proposed library would be approximately 16,290 gross square feet. The total usable square footage would be increased from about 11,100 square feet in the current library to about 13,100 square feet in the new library and would also include approximately 2,600 square feet of outdoor programmable space, expanding the useable area.

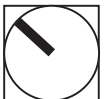
The proposed library would be located in the heart of the proposed project's commercial experience. This would provide several benefits to both library patrons and the new commercial uses. By relocating the library, the commercial center would have important drive-by exposure and frontage along Crown Valley Parkway, which is imperative to attracting and maintaining the types of commercial tenants envisioned for the proposed project. Relocating the library within the boundaries of the commercial core would also allow library patrons easier access to the restaurants, retail shops, and community gathering areas, and would enhance library experience and accessibility to community event spaces. Finally, the new library would provide a better designed and more functional library space equipped with modern technologies and improved space planning to support the needs of the broader library community and allow for more programming during the year.

Figure 3-4 - Proposed Site Plan  
3. Project Description



- |   |   |   |
|---|---|---|
|  Retail/Restaurant/Specialty Grocer/Fitness/Personal Services |  Residential |  Parking Structure |
|  Office Building  |  Library     |  Project Boundary  |

0  250  
Scale (Feet)



Source: OJB

### 3. Project Description

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### 3. Project Description

- **Residential Village.** The residential component of the proposed project would have 275 apartment units in two separate locations on the property along Alicia Parkway and Pacific Island Drive, with significant pedestrian and architectural connections to the project's commercial, office, and library components. Each residential building would be offered on a for-rent basis at market rates and offer a variety of unit floor plans, including one to three bedrooms in both flats and townhome configurations with surface, structured and direct-access garages to appeal to a broad segment of the renter market. The two buildings would be architecturally distinct and would provide modern finishes and features with best-in-class amenities and enhanced pedestrian connections to the commercial core of the project.
- **Residential 1.** Residential 1 would be at the southwest corner of Alicia Parkway and Pacific Island Drive between the Laguna Niguel City Hall and the OCFA fire station. It would house 200 one-, two-, and three-bedroom apartment units in a three- and four-story building that terraces down the existing slope and entirely wraps a four-story, five-level parking garage. Both the residential and garage structures would be on grade, with the parking entirely screened from view. Building height would not exceed 50 feet above the nearest finished grade. Resident amenities would include a leasing office, clubhouse, co-work area, state-of-the-art fitness center with outdoor workout space, outdoor dining, resort pool and spa, cabanas, bike repair shop, and pet spa. Ground-level units facing the commercial portion of the project would have expanded patios and direct entry to the sidewalk. The gross residential building area would be approximately 290,000 square feet, and the garage would be approximately 160,000 gross square feet. The building would have a contemporary design vernacular and include a mixture of materials such as plaster, metal, and tile.
- **Residential 2.** Residential 2 would be at the northwest corner of the site along Pacific Island Drive just west of the OCFA fire station. It would consist of two 3- and 4-story buildings surrounding a surface parking lot and house 75 apartment units consisting of one-, two-, and three-bedroom flats and two-story townhome-style units, some with private rooftop decks. Building height would not exceed 50 feet above nearest finished grade. Building amenities would include a private lounge adjacent to a resort-style pool and spa area that includes outdoor dining, cabanas, and a fire pit. Residents in Residential 2 would also have access to amenities in Residential 1. A number of the ground-floor units facing the south and east would have direct entry at the street level through private, gated patios. The gross residential building area would be approximately 120,000 square feet. Individual private garage space would occupy approximately 15,000 square feet. The project will include a 1.5 kilowatt/unit solar system on carports in the surface parking lot. The buildings would have a modern take on traditional residential design that complement the commercial buildings and would include a mixture of materials such as plaster, metal, stone, tile, and siding.
- **OCFA Station No.5.** Improvements would include reconstruction and repaving of the drive aprons and parking lots within the southern portion of the fire station property.

Table 3-1 shows a breakdown of the project components.

### 3. Project Description

**Table 3-1 Proposed Land Use Development**

Development Area	Total Building Area (Square Feet)
General Office Building	60,597
Medical-Dental Office Building	20,854
Shopping Center	34,340
Fast Casual Restaurant	17,355
Quality Restaurant	8,650
High-Turnover (Sit-Down) Restaurant	16,765
Library	16,290
<b>Subtotal Commercial</b>	<b>174,851</b>
Residential 1	200 dwelling units
Residential 2	75 dwelling units
<b>Subtotal Residential</b>	<b>275 dwelling units</b>

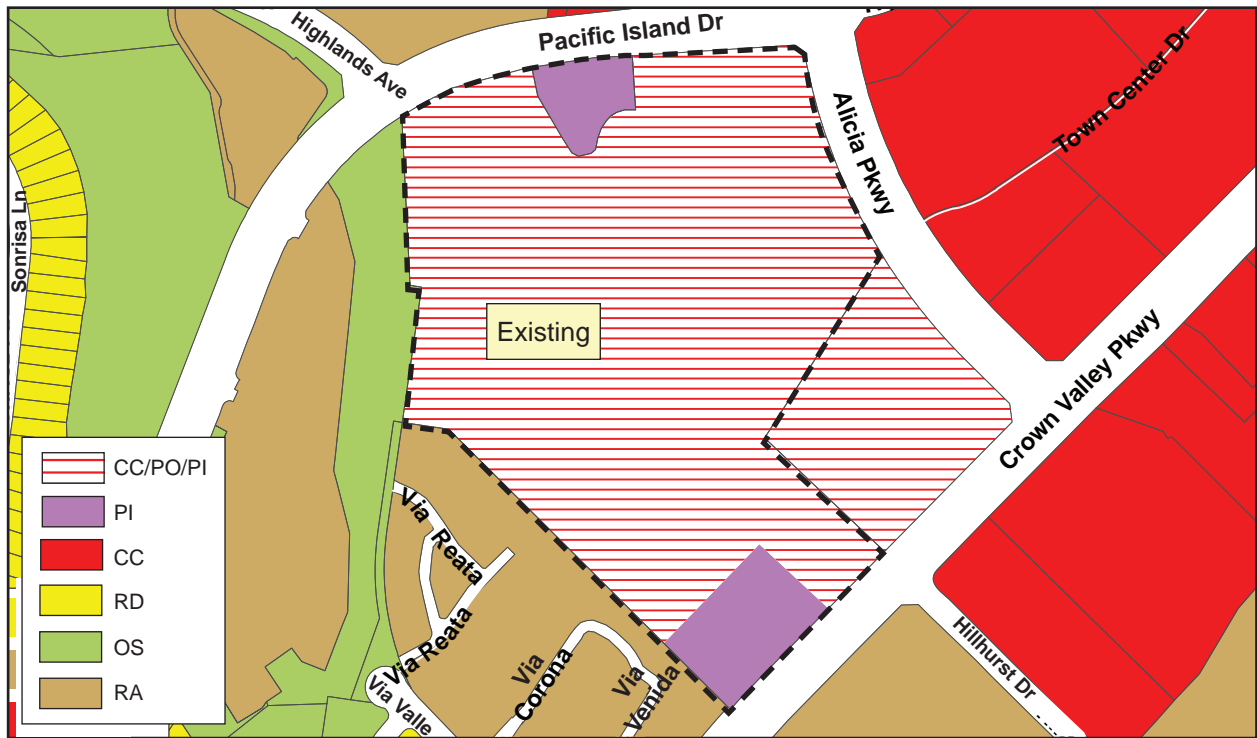
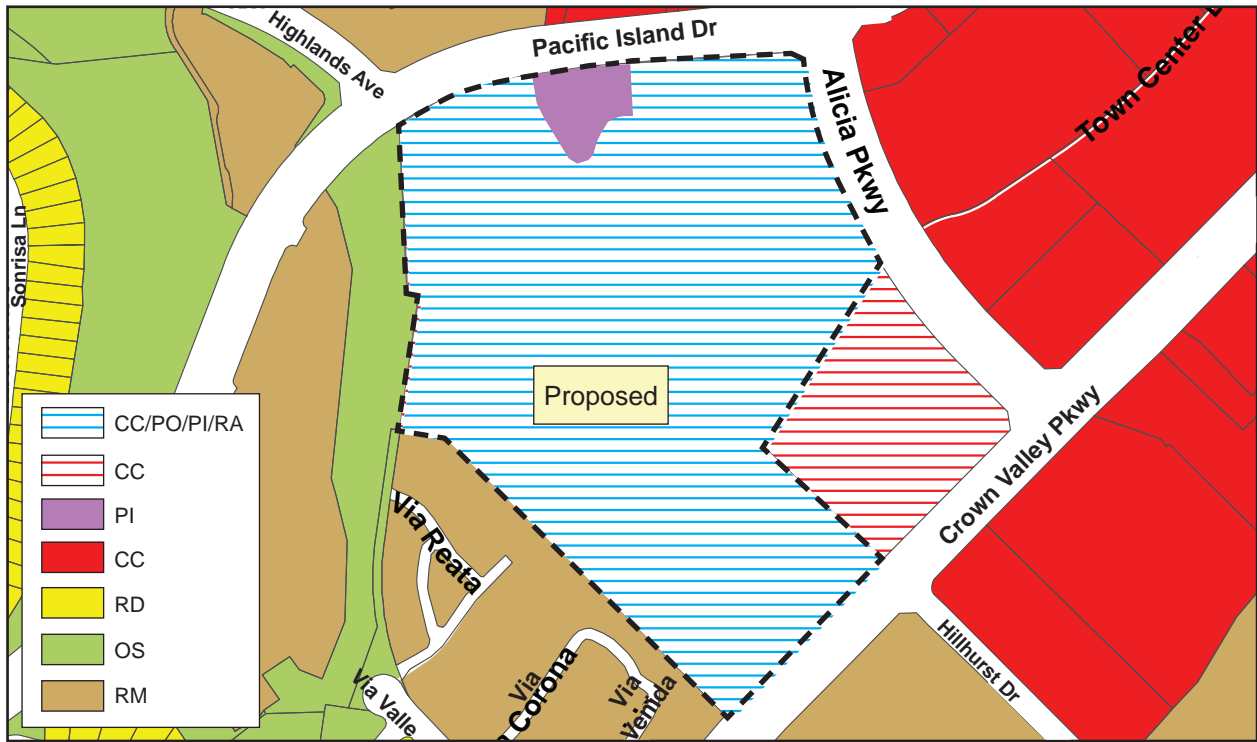
The project would require the following City approvals and adoptions:

- **General Plan Amendment GPA 19-01.** The subject property is in Community Profile 14, Sub-profile Area C (Town Center Expansion) of the Laguna Niguel General Plan. The Land Use Element designates the majority of the property as “Community Commercial” “Professional Office,” and “Public/Institutional,” which allows a wide range of nonresidential uses, such as retail, restaurant, office, personal service, hotel and public/institutional. The portion of the project site that includes the library and OCEFA Fire Station No. 5 are designated “Public/Institutional,” which allows a wide range of public, quasi-public, and special-purpose private facilities that provide government or social services to the community. The General Plan Amendment proposes to modify the land use designation for the entire property (excluding OCEFA Fire Station No. 5) to “Community Commercial, Professional Office, Public/Institutional, and Residential Attached” (see Figure 3-5, *Proposed Land Use Designations*). To accommodate this development program, the General Plan Amendment also includes amending the statistical summary for Sub-profile Area C to account for the proposed project, including residential dwelling units and other modest narrative updates to reflect existing conditions, which have changed since the original adoption of the General Plan in 1992.

The General Plan Amendment also amends the description for Sub-profile Area C (Town Center Expansion, to be retitled Town Center 3) as follows (strikeout: deleted text, underline: new text):

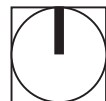
~~This area is designated Community Commercial, Professional Public/Institutional. The area currently includes the County of Orange Civic which encompasses 46,860 sq. ft. If the County Civic Center vacates this area, a maximum of 130,680 sq. ft. of Community Commercial and a maximum of 217,800 sq. ft. of Professional Office uses are envisioned for the site. Future development of the site may also include City Hall facilities. The existing Crown Valley Branch Library and Fire Station #5 will also remain within the sub area.~~

Figure 3-5 - Proposed Land Use Designations  
 3. Project Description



--- Project Boundary

0 500  
 Scale (Feet)



Source: City of Laguna Niguel

### 3. Project Description

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### 3. Project Description

Anticipated development of the County-owned property includes up to 159,000 sq. ft. of Community Commercial/Professional Office and a new library (approximately 16,3000 square feet in area), which would replace the existing library. Future redevelopment that achieves the projected sub profile area commercial growth may also include development of additive residential dwelling units at a maximum ratio of one (1) unit per 10,000 sq. ft. of commercial development. Bonus additive residential uses up to a total of 275 dwelling units may be developed provided that specific findings are achieved, as described below:

1. The proposed development substantially advances the General Plan’s intent, policies, and actions for Town Center;
2. The proposed development results in substantial public benefit, beyond that required for projects not requesting bonus additive residential uses (e.g., community-serving facilities, public outdoor gathering and event spaces, non-project infrastructure improvements, affordable housing, etc.); and
3. The proposed development results in significant improvements over existing site and building conditions by creating exceptionally high-quality mixed-use development in terms of site planning, architecture, circulation, landscaping, pedestrian amenities, land uses, and other design elements.

Additionally, the proposed General Plan Amendment includes the following policy revisions under Land Use Element Goal 9, “Enhancement of the Town Center” (underline: new text):

- **Policy 9.2.** Enhance pedestrian circulation through the construction of pedestrian walkways and paths. Projects that feature pedestrian activity through street character, plazas, and other outdoor amenities that enhance Town Center’s viability are encouraged.
- **Policy 9.3.** Encourage the development of new land uses that provide both daytime and evening activities. This may include mixed-use developments comprised of a variety of integrated commercial and additive residential uses that have well planned public spaces that bring people together and provide opportunities for interaction and active living featuring a range of shopping, restaurant, service, employment, civic, and entertainment and leisure activities and uses.
- **Policy 9.4.** Ensure high quality urban design in the Town Center area with structures of varying scale and function that are visually distinct and complement the City’s identity. A focus is also ensuring the appearance of arterials and surrounding streets are significantly enhanced with street trees and other landscaping to improve the visual and spatial experience of drivers and pedestrians.
- **Zone Change ZC 19-01.** The majority of the project site is zoned “Community Commercial” (CC) District, which allows for a variety of retail, restaurant, office, personal service, hotel, and other nonresidential uses. The portion of the project site that includes the library and OCFA Fire Station No. 5 are zoned “Public/Institutional,” which allows a wide range of public, semi-public, and special-purpose private facilities to provide a variety of government and social services. The applicant is proposing a change in the property’s zoning designation to “Mixed-Use Town Center” (MU-TC) District (see Figure 3-6, *Proposed Zoning Districts*), excluding OCFA Fire Station No. 5.

### 3. Project Description

- **Zoning Code Amendment ZCA 19-01.** Accompanying Zone Change ZC 19-01, a zoning code amendment is proposed to establish the mix of permissible land uses and development standards for the new MU-TC District.
- **Vesting Tentative Tract Map VTTM 19024.** The applicant is proposing a vesting tentative tract map to subdivide the property into a total of 21 lots, including 17 numbered lots and 4 lettered lots.
- **Site Development Permit SDP 19-03.** A site development permit is required for all projects that involve construction of any structure, except in certain limited circumstances. The project involves construction of multiple structures. The applicant is therefore proposing a site development permit for the project. A site development is also proposed because the project includes over 5,000 cubic yards of earth work and to allow alternative development standards for a reduction in the minimum depth of boundary landscaping at the base of an ascending slope for a property line segment along proposed Residential 2 (Lot 14).
- **Certification of the Environmental Impact Report and Adoption of Findings of Fact and a Mitigation Monitoring and Reporting Program.** An EIR is required by CEQA, and the City must certify the EIR and adopt Findings of Fact and a Mitigation Monitoring and Reporting Program before approving the above-listed project entitlements.

#### Operations

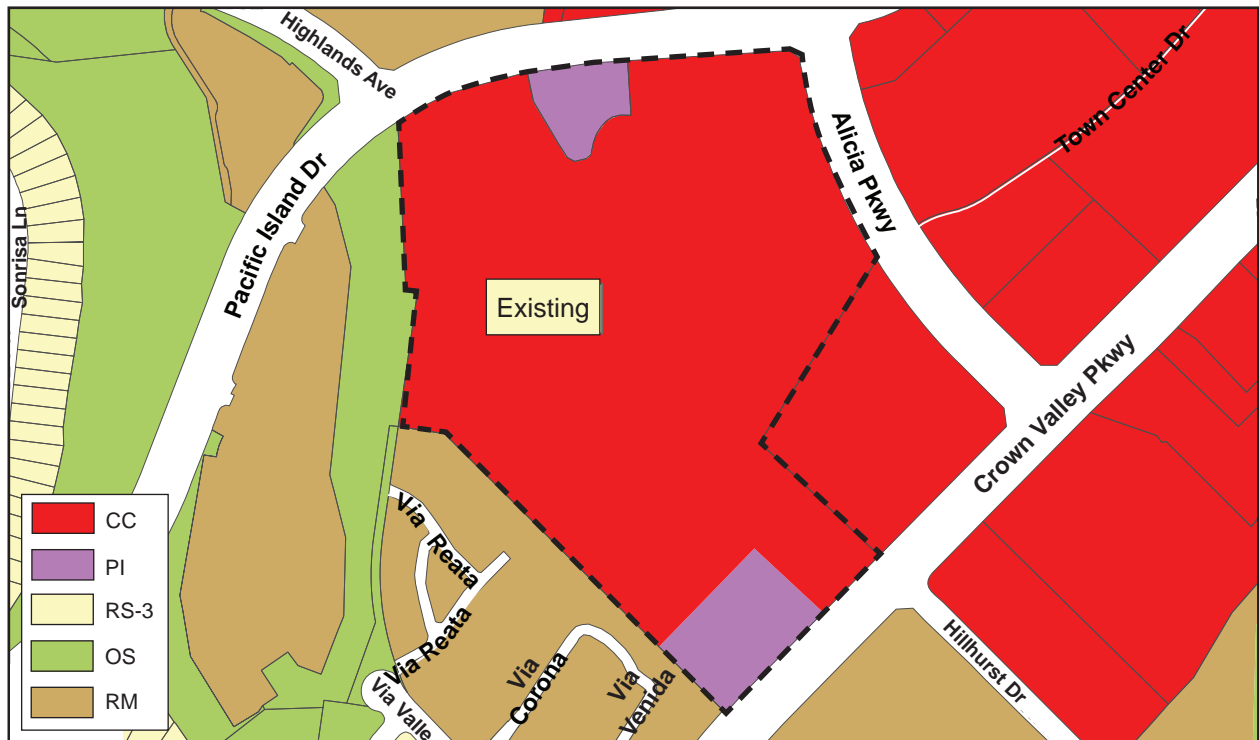
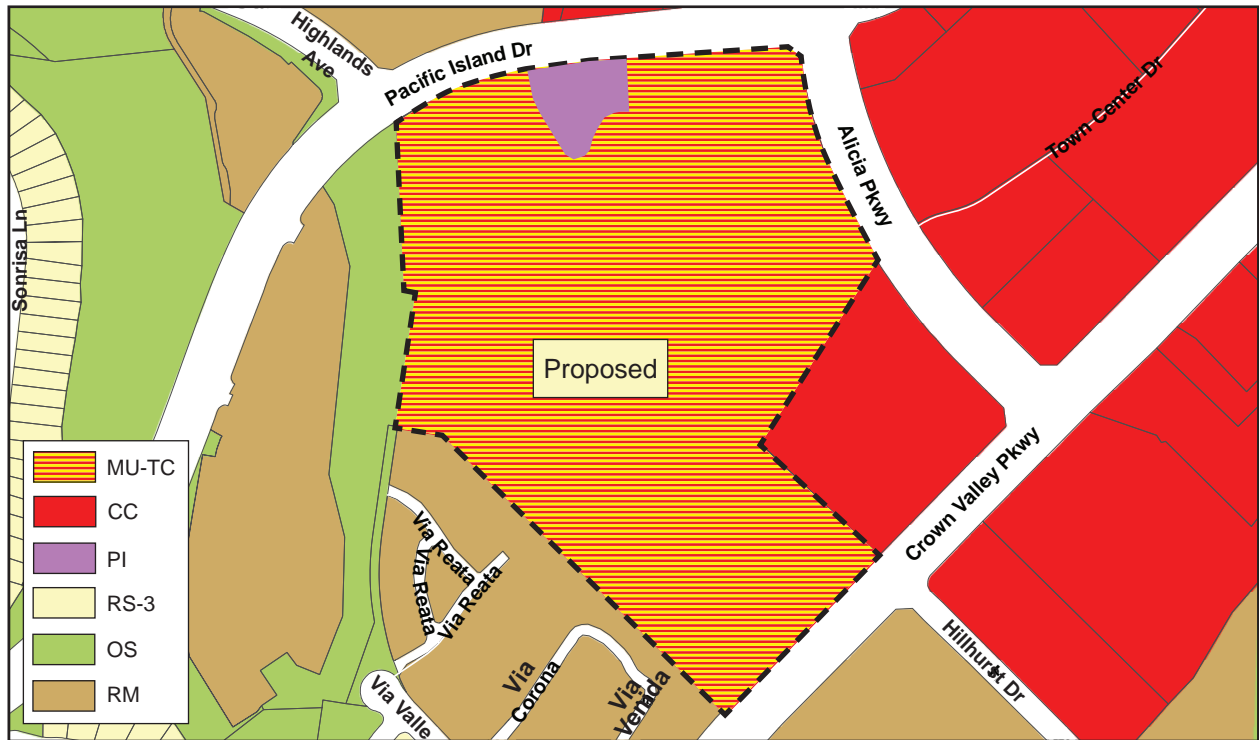
General hours of operations for the retail/restaurant component would be from 10:00 am to 9:00 pm, seven days a week, for all commercial uses. Some exceptions include coffee and breakfast cafes that may be open as early as 6:00 am, restaurants and bars that may be open until 12:00 am, and selected restaurants that may be open until 11:00 pm on weekends. Many service uses would close earlier than 9:00 pm.. Individual specific uses may require a conditional use permit, which could establish other hours of operation.

Special events, including festivals, movie screenings, performances, and farmers markets, would typically be held on weekends. Small events held weekly could include yoga in the park with approximately 20 people; medium events held monthly could include movies in the park with approximately 100 people; and larger events held quarterly could include craft festivals, larger-scale food and wine events, or even community-based seasonal events. Temporary use permits will be sought as required under the municipal code.

The primary hours of deliveries would be between 8:00 am and 11:00 am.

A garbage compactor would be on the project site in a loading dock area near Buildings 1 and 2 off of Crown Valley Parkway. It would be hidden by a screen wall to minimize visual impacts and noise. Building 3 would have a trash enclosure in the parking lot adjacent to the building. Buildings 4, 7, and 8 would have compactors inside trash rooms or trash enclosures. The compactors would accommodate trash, recycling, and compost collection for Buildings 4 through 9. Building 12 would share the trash room of Building 4. The rooms and enclosures would have designated pick-up areas at each building. Buildings 10 and 11 would have a trash enclosure west of the parking garage.

Figure 3-6 - Proposed Zoning Districts  
3. Project Description



--- Project Boundary



Source: City of Laguna Niguel

### 3. Project Description

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### 3. Project Description

At the residential buildings, residents would bring trash, recycling, and compost materials to central trash enclosures or trash chute rooms. At Building 15 (Residential 1), residents would bring trash, recycling, and compost to two outdoor trash enclosures in the central surface parking lot. On service days, trash haulers would enter the parking lot through gates and service the enclosures. At Building 17 (Residential 2), residents would bring trash, recycling, and compost to one of two trash chute rooms on each floor; the trash chute rooms lead to two termination rooms on the ground floor of the parking structure. On service days, management would open the security gate to the trash staging area under the west side of the building, tow the bins from the termination rooms in the parking structure to the trash staging area, and leave the gate open. Trash haulers would enter the trash staging area, service the bins, back out of the area, and exit the site. Management would tow the bins back to the termination rooms on the ground floor of the parking structure and close the gate.

#### Site Circulation and Parking

##### *Parking*

Parking for the commercial uses would be provided in a combination of surface parking spaces adjacent to the commercial uses and within a multilevel parking structure on the west side of the property. Parking structure height would not exceed 50 feet. The number of parking spaces provided would exceed the City's minimum parking code standard, with a total parking count of approximately 1,066 surface and garage spaces to serve both the commercial uses and the library. Dedicated and convenient parking would be provided for the library patrons close to the library. In addition, a valet/drop-off area would be established at the major entrance to the village retail area.

Residential 1 (200 units) would provide a minimum of 406 parking spaces for residents and guests, which is consistent with the City's minimum parking code standard. All stalls are in a subterranean and above-grade garage internal to the building.

Residential 2 (75 units) would provide a minimum of 157 parking spaces for residents and guests, which is consistent with the City's minimum parking code standard. Resident parking would be on the Residential 2 parcel and consist of 20 tuck-under private garages directly connected to units, 15 tuck-under private garages not connected to units, 59 open surface stalls, and 40 surface stalls with carports, for a total of 134 stalls. A total of 23 guest stalls would be in the adjacent parking structure.

##### *Vehicular Circulation*

The site would be accessible via four existing entries: one entry off of Crown Valley Parkway, one entry off of Alicia Parkway, and two entries off of Pacific Island Drive. Primary vehicular access to the site would be from the existing signalized intersection at Crown Valley Parkway and Hillhurst Drive/Civic Center Plaza. A signal is proposed as a project feature at the existing unsignalized intersection of Alicia Parkway and Town Center Drive. Two secondary access points would be off Pacific Island Drive, east and west of the OCFA fire station (two access driveways exist off Pacific Island Drive). Additionally, pedestrian and vehicular connectivity is provided throughout the site, giving access to all parking areas and various points of entry into the Retail Village Core itself.

### 3. Project Description

#### *Pedestrian Circulation*

Primary pedestrian access into the site would be from the same four points of vehicular entrance—Crown Valley Parkway, Alicia Parkway, and both entrances from Pacific Island Drive. All sidewalks from these streets would provide safe pedestrian access into a “Main Street” style auto/pedestrian promenade that would circulate around the commercial core and offer multiple points of access into the Retail Village Core between buildings and patios from wide, landscaped pedestrian greens. Once into the project, all commercial and residential buildings would be linked via pedestrian walkways, greens, and landscaped gardens to facilitate interactions and connections between all onsite uses, community gathering, and ease of access to the commercial core.

#### **Off-Site Traffic Improvements**

The following project-specific off-site traffic improvements are proposed to be completed in conjunction with the project development:

- **Alicia Parkway at Pacific Island Drive/Ivy Glenn Drive.** Extend the northbound left-turn pocket 65 feet to provide a minimum total storage of 225 feet. This would require the removal of 65 feet of the existing raised median.
- **Intersection of Alicia Parkway and the proposed project’s driveway at Town Center Drive.** Install a five-phase traffic signal with protective left-turn phasing on Alicia Parkway, and stripe crosswalks on all four legs, inclusive of preemption for emergency vehicles and interconnection to adjacent signal. Restripe the eastbound approach (internal to project site) to provide an exclusive eastbound left-turn lane.
- **Crown Valley Parkway at Alicia Parkway.** Extend the dual northbound left-turn lanes 30 feet each to provide a minimum total storage of 205 feet per lane (410 feet total for both lanes). This would require the removal of 30 feet of the existing raised median.
- **Intersection of Crown Valley Parkway and the proposed project’s driveway at Hillhurst Drive.** Widen and restripe Crown Valley Parkway to provide an exclusive southbound right-turn deceleration lane. Modify the existing traffic signal to convert the five-phase traffic signal to a six-phase traffic signal in order to provide split phasing in the east-west direction along Project Driveway No. 2/Hillhurst Drive. Extend the northbound left-turn pocket 100 feet to provide a minimum total storage of 190 feet. This would require the removal of 100 feet of the existing raised median.
- **Pacific Island Drive.** Modify Pacific Island Drive at the Project Driveway No. 4 to restrict northbound (outbound) left turn movements onto Pacific Island Drive from the project site and to restrict southbound (outbound) left turn movements onto Pacific Island Drive from the commercial center across from Driveway No. 4.
- **Bicycle lane and crosswalk enhancements.** The project includes enhancements to the bicycle lane network and crosswalks in the area surrounding the project site.

## 3. Project Description

### Landscaping

As shown in Figure 3.7, *Proposed Landscape Plan*, the entire proposed project would be landscaped with drought-tolerant native and ornamental trees, shrubs, gardens, and lawns, all of which would be privately owned spaces available to the public and maintained by the applicant. In particular, the approximately one-acre Town Green at the main entrance to the Retail Village Core and at the convergence of entrance roads from Crown Valley and Alicia Parkways would act as the main gathering place and outdoor event programming area. This area would be landscaped with a large, central, terraced event lawn as well as drought-tolerant native and ornamental trees, shrubs, and gardens and stone walkways. Surrounding the Town Green would be various soft seating areas, decomposed granite walkways, outdoor dining areas, herb gardens, and a central water feature. The landscaping would be carried throughout the project, linking all areas with pedestrian walkways, paseos, and communal seating areas. The project would also incorporate new landscaping and entry signage along the perimeter streets (Crown Valley Parkway, Alicia Parkway, and Pacific Island Drive) that would complement and enhance surrounding street scenes and help establish a new identity for the city center area. The apartment homes would feature decorative landscaping, outdoor dining, enhanced hardscape, resort-quality furnishings, and features in each courtyard. Additionally, all interior streets and pedestrian pathways would be lined with ornamental trees.

### Infrastructure

#### *Water*

The project site is within the service area of the Moulton Niguel Water District for both potable water and recycled water. Potable water transmission mains are in Alicia Parkway and Crown Valley Parkway. The project would connect to and extend water pipes into the project area to serve future on-site uses. No additional off-site water infrastructure work is required for potable water other than making connections to the nearby main lines in adjacent streets. Additionally, the project would use recycled water for landscaping, which requires minimal off-site work other than connecting to existing recycled water lines in Crown Valley Parkway.

#### *Wastewater*

The Moulton Niguel Water District also provides wastewater services to the project site. A main sewer line is in Crown Valley Parkway. The project would require limited off-site work other than connecting to the existing sewer line and extending pipes into the project area to the proposed residential and nonresidential uses. No additional off-site wastewater infrastructure work would be required.

#### *Drainage*

The existing topography of the site varies but generally slopes downward from north to south. The existing public 66-inch RCP storm drain (J03P07) runs from Pacific Island Drive through the site to Crown Valley Parkway. The project proposes creating a new drainage alignment starting off-site in Pacific Island Drive, continuing through the site beneath the proposed interior roadways, and reconnecting to the existing storm drain on-site and near Crown Valley Parkway. A portion of the storm drain off-site in Pacific Island Drive immediately adjacent to the property would be removed and replaced, and the on-site storm drain would be replaced up until the proposed connection near Crown Valley Parkway. The existing storm drain on-site would

### 3. Project Description

then be either demolished, abandoned, or a combination thereof, as determined prior to construction. On-site drainage improvements would include catch basins, drain inlets, gutters, storm drainpipes, and bio-treatment modular wetlands that connect to a private storm drain system leading to the proposed hydromodification detention vault(s). The detention vault discharges to the public storm drain system. Additional detail is provided in the project's Preliminary Water Quality Management Plan and conceptual grading and drainage plan.

#### *Dry Utilities*

Public infrastructure and utility facilities, including but not limited to electrical, telephone, cable television, and natural gas, would have to be upgraded and/or extended to the project site. No off-site dry utility work is required beyond upgrades and/or extensions in adjacent streets and existing, nearby facilities. All new dry utilities would be placed underground within the project area except for new connections to nearby off-site facilities. Dry utility providers for the project would be the same as for the current City Hall and library buildings—San Diego Gas & Electric for electricity, Southern California Gas Company for natural gas, AT&T for telephone service, and Cox Communications for cable television and data transmission.

### 3.3.2 Project Phasing and Construction

It is anticipated that the project would be built in a single phase spanning approximately 36 months. Construction sequencing is shown in Figures 3-8, *Demolition and Grading*, and 3-9, *Foundations and Buildings*.

#### 3.3.2.1 DEMOLITION / SITE PREPARATION

Development of the project would require demolishing the South County Justice Center, the county maintenance yard, and the library. Temporary off-site facilities would be secured for the library to continue operations during construction. The location of the temporary off-site library facility and its operational details are not currently known and cannot be ascertained with the exercise of reasonable diligence. Prior to demolition, the existing structures would be surveyed, and any hazardous building materials, such as asbestos, would be properly removed and disposed. The demolition plan includes crushing concrete and asphalt material (using a Powerscreen Trakpactor 320SR or similar impact crusher) and stockpiling it for use as engineered fill or pavement base. The crushing operation and accompanying stockpile of material are anticipated to be located in the center of the site. Total demolition and site preparation activities are projected to occur over four months.

#### 3.3.2.2 CONSTRUCTION

Construction activities include grading and excavation; installing utilities and interior roads; construction of foundations and structures; installation of exterior and interior finishes; installation of mechanical, electrical, and plumbing; installation of landscape and irrigation; and installation of furniture and equipment.

#### Construction Schedule

It is anticipated that construction activities will take approximately 36 months, with approximately 4 months of site preparation and demolition and 32 months of sitework and vertical construction.



Figure 3-7 - Proposed Landscape Plan  
3. Project Description



COMPREHENSIVE LANDSCAPE SUMMARY			
BOTANICAL / COMMON NAME	QTY	INTERIOR LANDSCAPE	MINIMUM INTERIOR LANDSCAPE REQUIRED
COMMERCIAL LANDSCAPE AREA / ORNAMENTAL PLANTING	74,668 SF		
NON-COMMERCIAL LANDSCAPE / ORNAMENTAL PLANTING	6,297 SF		
COMMERCIAL LANDSCAPE WITHIN PARKING AREA / ORNAMENTAL PLANTING	24,495 SF	3.9% INTERIOR LANDSCAPE WITHIN PARKING AREA	2.5% MINIMUM INTERIOR LANDSCAPE WITHIN PARKING AREAS PER SEC. 9-1-43.1
COMMERCIAL LANDSCAPE AREA / TURF	6,291 SF		
TOTAL COMMERCIAL AREA	617,030 SF		
TOTAL COMMERCIAL AREA LANDSCAPE	105,474 SF	17% INTERIOR LANDSCAPE OF TOTAL COMMERCIAL AREA	5% MINIMUM INTERIOR LANDSCAPE PER SEC. 9-1-43.1

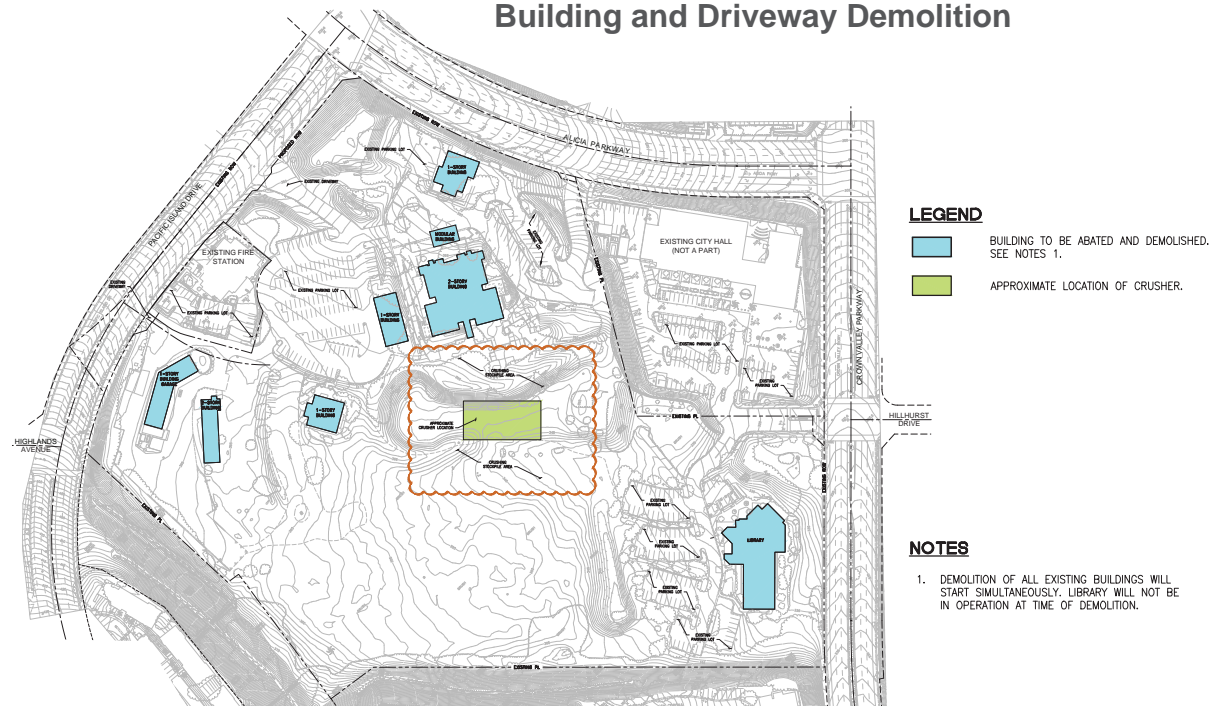


### 3. Project Description

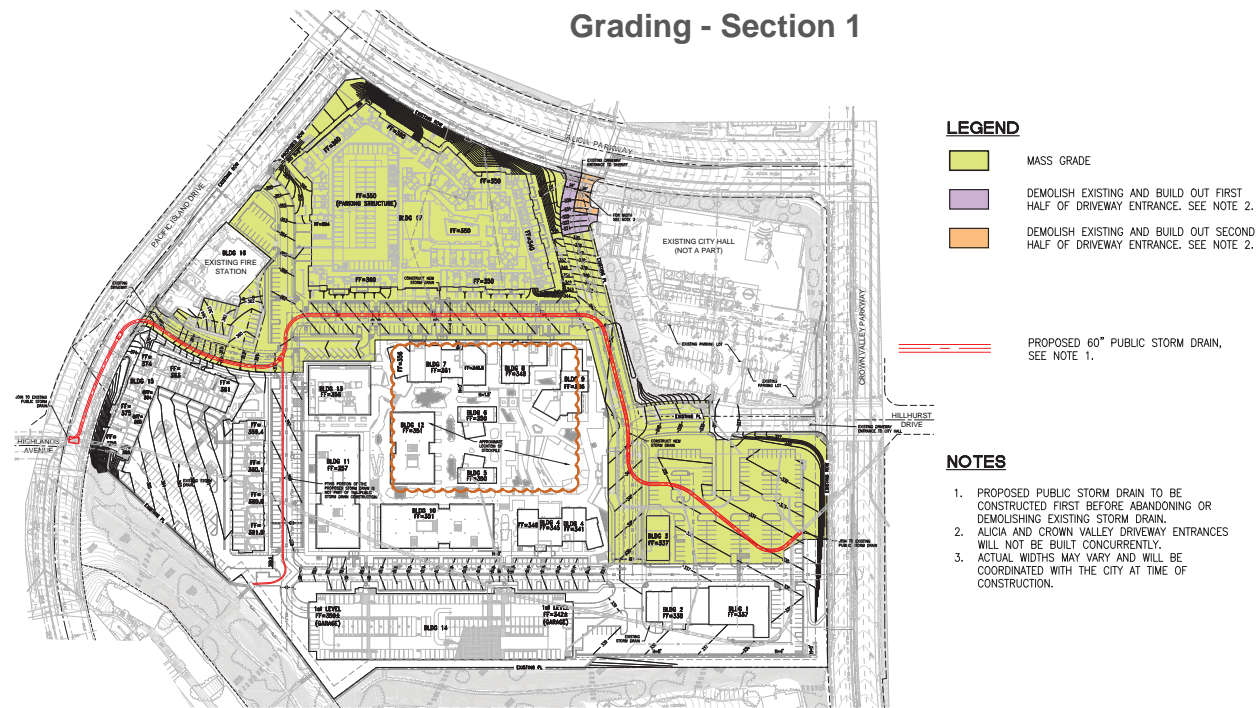
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Figure 3-8 - Construction Sequencing - Demolition and Grading  
3. Project Description

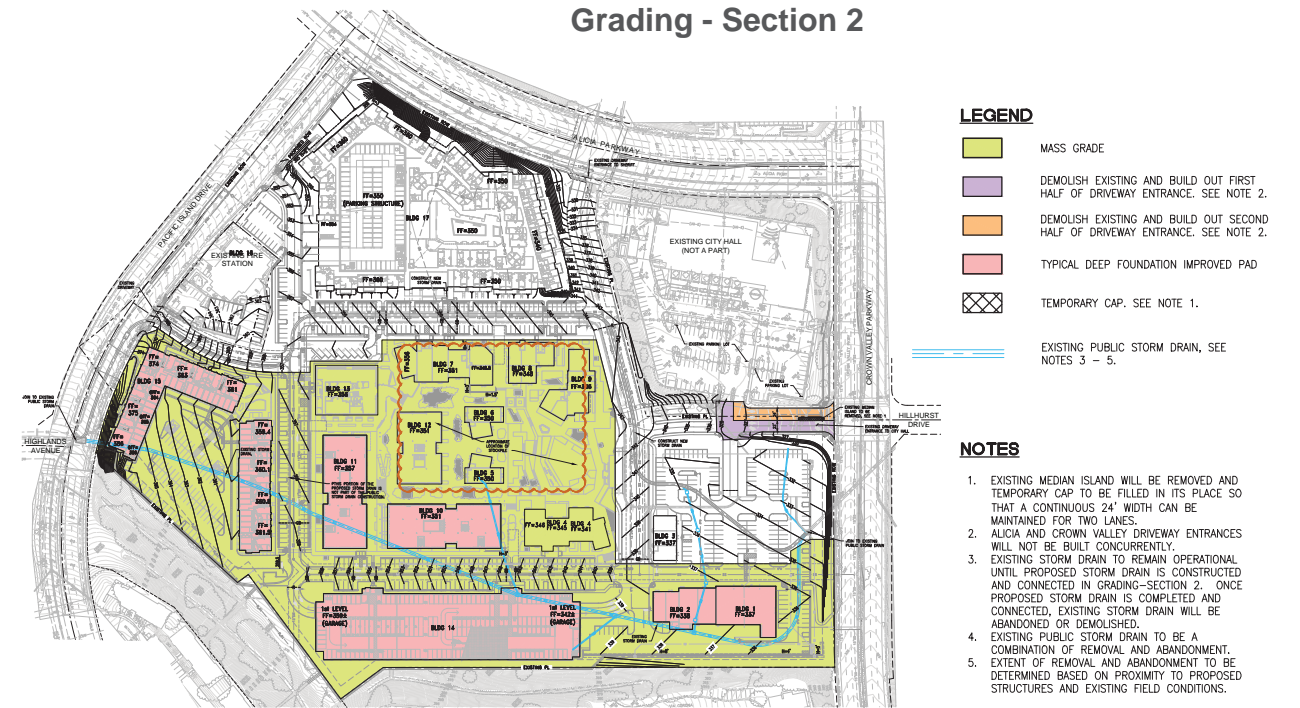
### Building and Driveway Demolition



### Grading - Section 1



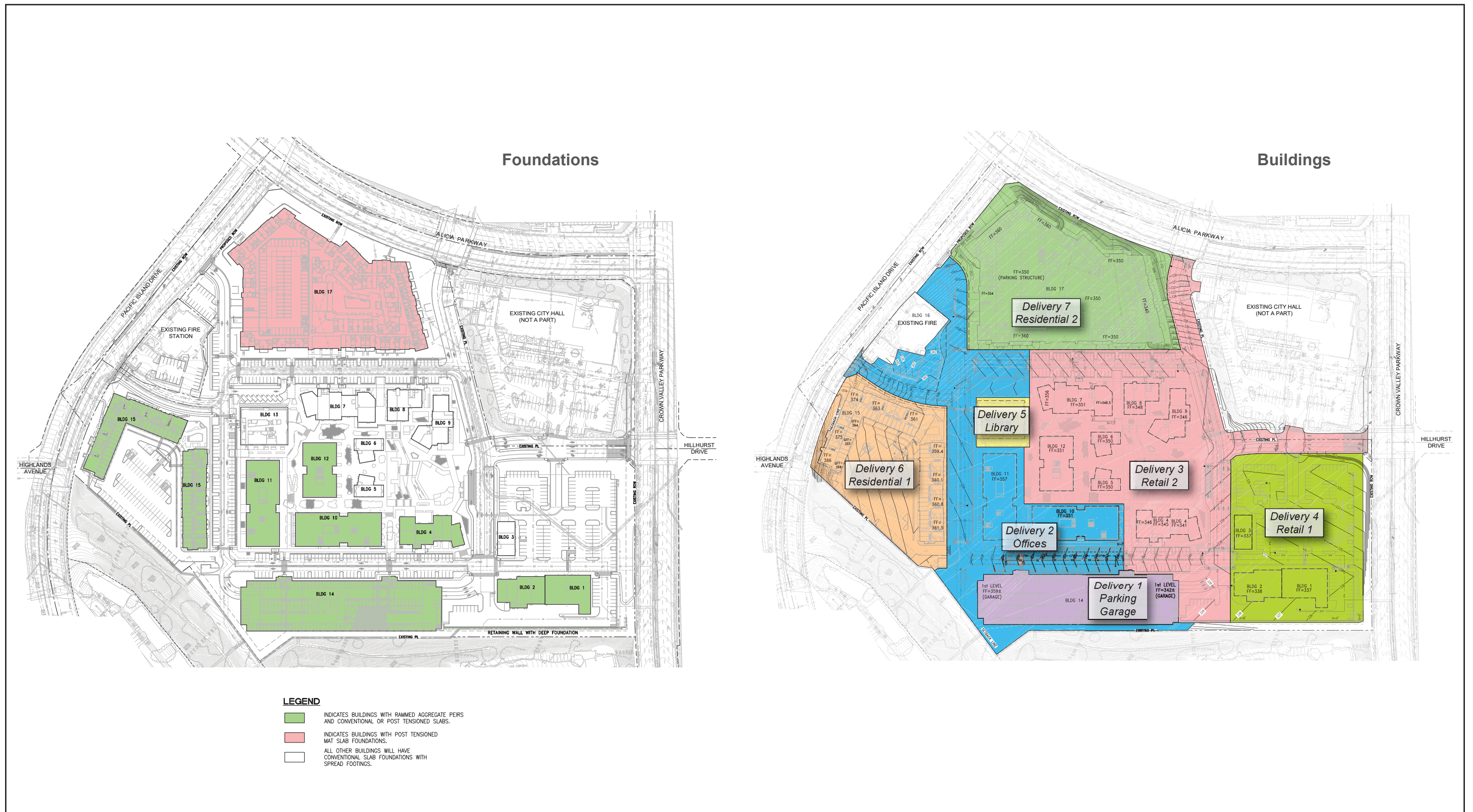
### Grading - Section 2



### 3. Project Description

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Figure 3-9 - Construction Sequencing - Foundations and Buildings  
3. Project Description



### 3. Project Description

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## 3. Project Description

### Construction Hours

Based on the Laguna Niguel Noise Ordinance (Division 6.6 of the Laguna Niguel Municipal Code), construction noise would be limited to 7:00 am to 8:00 pm on weekdays and Saturdays. No construction is allowed by the City on Sundays or federal holidays. Construction activities associated with the proposed project would occur during these designated hours, although workers may be on-site conducting non-noise-generating activities, such as office tasks, outside of those hours.

### Access During Construction

Construction ingress and egress would occur at existing points of entry along Crown Valley Parkway, Alicia Parkway, and Pacific Island Drive as well as temporary access points as needed along those perimeter streets. Access to City Hall off Crown Valley Parkway and to the sheriff's station off Alicia Parkway would be maintained throughout construction. Each entry would be rebuilt during construction with widening and repaving, but the primary objective, public access, would always be maintained. Half of each entranceway would be kept open while the other half is under construction. At Crown Valley Parkway, there is currently one inbound lane and two outbound lanes. This would be reduced to one inbound and one outbound lane while the entry is being rebuilt, and since the library would be closed, capacity needs would be reduced. At Alicia Parkway, there is currently one inbound lane and one outbound lane, and this would stay the same during construction. Lanes would be a minimum of 10 feet wide. Entranceway construction would take about three to four months.

### Earthwork

The project estimates approximately 305,600 cubic yards of cut and approximately 207,600 cubic yards of fill, which results in approximately 98,000 cubic yards of export from the site. Figure 3-10, *Cut/Fill Map*, shows the depths of cut and fill throughout the site and a table with preliminary earthwork volumes. The cut/fill calculation assumes a conservative 10 percent shrinkage factor.

### Utilities

Utilities for the project would include water, sewer, storm drain, gas, and electrical work. Water, sewer, storm drain, gas, and electrical utility work would occur concurrently with rough grading. Off-site wet utilities would include the installation of approximately 40 feet of sewer pipe in Crown Valley Parkway, approximately 275 feet of 66-inch reinforced concrete storm drain pipe in Pacific Island Drive, approximately 1000 feet of 4-inch water line in Pacific Island Drive, and approximately 500 feet of 12-inch water main in Alicia Parkway. The on-site water main would consist of approximately 6,000 feet of C900 PVC pipe, including gate valves, hydrants, and meter boxes, as required by code. The storm drain design includes a catch basin and inlet structures that would divert stormwater runoff via approximately 5,200 feet of 8-inch PVC to 66-inch reinforced concrete pipe with 218 large storm detention chamber units at the end of the run. The new on-site sewer would include approximately 5,500 linear feet of 6-inch to 8-inch PVC sewer with manholes spaced as necessary. Dry utilities would be run through an on-site joint trench. The joint trench would be encased with concrete per Southern California Edison standards, and the site would incorporate vaults and transformer pads as required.

### 3. Project Description

#### **Foundation Construction**

Building foundations would vary per building and may include: 1) conventional slab design with spread footings; 2) post-tensioned mat slab; 3) conventional slab with deep foundations or; 4) post-tensioned slab with deep foundations. Buildings 1, 2, 4, 10, 11, 12, and 14 are anticipated to require conventional slabs with deep foundations such as rammed aggregate piers. Building 15 is anticipated to require post-tensioned slabs with deep foundations. Rammed aggregate piers are constructed using a track-mounted auger to drill out unsuitable soils and a track-mounted tamper to compress aggregate and impart lateral soil pressure. Approximately 2,900 piers of 24 inches in diameter are anticipated, at depths ranging from 10 to 30 feet. Conventional slabs with spread footings are anticipated at Buildings 3, 5, 6, 7, 8, 9, and 13. Post-tensioned mat slabs are anticipated at Building 17. Digging and construction of the rammed aggregate piers would take approximately four to five months within an overall foundation work period of eight to twelve months for all buildings.

An approximately 450-foot long, 6 to 8-foot-high soldier pile retaining wall running north-south is anticipated at the southwest corner of the site behind Buildings 1 and 2. The retaining wall would consist of approximately 65 piles extending from 10 to 25 feet below the proposed grade. An auger (MC-28 HD drill rig or similar) would be used to dig open shafts for steel columns that would be dropped in and slurried in place. Formwork would attach to the steel columns, drainage mat would be installed, and the wall would be shotcrete into place. Work would take approximately two to three months.

#### **Vertical Construction**

Vertical construction would begin when foundations are completed.

##### *Residential*

Residential 1 is wood-framed, Type-V construction, with three- and four-story elements. Residential 1 would contain 200 apartments that wrap around a Type I, short-span reinforced concrete parking structure. The residential foundations would start shortly after the garage begins construction. Wood framing, mechanical, electrical, plumbing, drywall, cabinets, and finishes would follow thereafter. Temporary scaffolding would follow along as the building is framed to support work on the exterior skin and coating.

Residential 2 consists of wood-framed buildings that contain 75 units. Residential 2 would be wood-framed, Type-V construction, and the buildings would be three and four stories and sit over ground-level, tuck-under garages. Construction sequencing would be similar to Residential 1, but without a concrete garage structure.

##### *Commercial: Garage, Office, Library*

The commercial parking structure would be designed and built as a long span reinforced concrete garage. The three commercial/office buildings and the library would be Type I steel buildings. Once the steel structure is complete and the metal decks and concrete have been placed, workers would clad and seal the buildings. Mechanical, electrical, plumbing, elevator, and fire protection would occur once the building is sealed. Tenant improvements would vary according to the individual needs of each tenant.



Figure 3-10 - Cut/Fill Map  
3. Project Description



Elevations Table			
Number	Minimum Elevation	Maximum Elevation	Color
1	-26.000	-24.000	Dark Purple
2	-24.000	-22.000	Purple
3	-22.000	-20.000	Light Purple
4	-20.000	-18.000	Dark Red
5	-18.000	-16.000	Red
6	-16.000	-14.000	Light Red
7	-14.000	-12.000	Orange
8	-12.000	-10.000	Light Orange
9	-10.000	-8.000	Yellow
10	-8.000	-6.000	Light Green
11	-6.000	-4.000	Green
12	-4.000	-2.000	Light Green
13	-2.000	0.000	Yellow
14	0.000	2.000	Light Green
15	2.000	4.000	Green
16	4.000	6.000	Light Green
17	6.000	8.000	Green
18	8.000	10.000	Dark Green
19	10.000	12.000	Dark Green

**LEGEND**

- ✖ -XX.X CUT DEPTH
- ✖ XX.X FILL DEPTH
- X — PROP. SUBGRADE CONTOURS
- - - X - - - EXISTING CONTOURS

**LAGUNA NIGUEL TOWN CENTER  
PRELIMINARY EARTHWORK VOLUME CALCULATIONS**

DESCRIPTION	CUT	FILL	BALANCE	REMARKS
Site Preparation	100,000	0	100,000	
Foundation	50,000	0	50,000	
Structure	1,200,000	1,200,000	0	
Site Work	100,000	100,000	0	
Grading	100,000	100,000	0	
Drainage	100,000	100,000	0	
Landscaping	100,000	100,000	0	
Other	100,000	100,000	0	
<b>Total</b>	<b>2,100,000</b>	<b>2,100,000</b>	<b>0</b>	

Source: FUSCOE, 2021



### 3. Project Description

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### 3. Project Description

#### *Commercial: Retail*

The retail component of the project would consist of nine wood-framed, Type-V buildings with some structural steel. All the retail buildings would be one-story, slab-on-grade construction. The buildings would be framed, and scaffolding would be erected to install the exterior skin and coatings. After the structures are skinned, workers would add the mechanical, electrical, plumbing, insulation, fire protection, and interior finishes. Tenant improvements would vary according to the individual needs of each tenant.

#### **Construction Worker and Truck Traffic**

For purposes of analysis, construction activities are assumed five days per week (Monday through Friday) from 7 am to 4 pm, but extended workdays (10 hours) and work weeks (Monday through Saturday) may be necessary for certain construction trades to maintain the schedule and will comply with the City's noise ordinance and time constraints. Phase-specific construction traffic factors are identified for each phase of construction.

#### *Site Abatement*

Site abatement is anticipated to last approximately one-month. A total of 18 workers would be on-site each day, on average.

#### *Demolition*

Demolition is anticipated to last approximately three months. A total of 18 workers would be on-site each day, on average. A total of four water trucks would be on-site each day on average. There would be approximately 2,700 tons demolished, which would necessitate a total of approximately 169 round-trip truck trips with 16-ton truck-carrying capacity for noncrushed material. There would be approximately 20 daily round-trip truck trips, assuming a duration of approximately 8.5 days.

#### *Site Preparation, Grading, and Utilities*

Site preparation, rough grading, and utilities work are anticipated to last approximately seven months. A total of 30 workers would be on-site each day on average. A total of four water trucks would be on-site each day on average. Site preparation and rough grading would require approximately 83,000 cubic yards of exported fill.<sup>1</sup> This phase would result in a total of 5,929 truck round-trips with 14 cubic yards of carrying capacity. Assuming a maximum of 3,626 miles/day and 35 miles to the land fill, truck trips would be approximately 51 daily round-trips for 116 days.

#### *Fine Grading and Street Paving*

Fine grading and street paving work is anticipated to last approximately three months starting the same time as building construction. A total of 23 workers would be on-site each day on average. A total of four water trucks would be on-site each day on average. This phase would require an average of 10 daily round-trip paving truck

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<sup>1</sup> The project requires a total of approximately 98,000 cubic yards of export. Approximately 83,000 cubic yards of export would occur during the site preparation and rough grading phase, and the remaining 15,000 cubic yards would occur during the fine grading and street paving phase.

### 3. Project Description

trips for an approximately 20-day duration for asphalt deliveries. Hauling would include approximately 10,000 cubic yards of imported fill and 15,000 cubic yards of exported fill. Hauling would require a total of 1,786 truck round-trips with 14 cubic yards truck-carrying capacity. Truck trips would be approximately 27 daily round-trips, assuming 66 days of hauling.

#### *Building Construction, Architectural Coating, and Landscaping*

Building construction, architectural coating, and landscaping work is anticipated to last approximately 29 months. On average, this phase would require 150 workers on-site every day and an average of two water trucks every day. An average of 40 daily round-trip truck trips would be required.

The following assumptions were made for truck trips and employee trips:

- Each worker would make two trips per day, one during the AM peak hour and one during the PM peak hour. This assumption provides a conservative estimate of impacts because the vast majority of workers would arrive and leave during nonpeak hours (i.e., arrival between 6:30 am and 7:00 am and departure between 4:00 pm and 4:30 pm).
- Each water truck would be brought to the site and would remain on-site during the duration of construction phases requiring the water truck. They would be refilled via a hydrant on the site.
- Each truckload would require an inbound and outbound trip. The daily number of truck trips was averaged over the 8-hour workday to obtain the number of peak hour truck trips (50 percent entering and 50 percent exiting).
- All construction truck trips were converted to PCE (passenger car equivalents) using a PCE factor of 3.0.

#### **Construction Equipment**

It is expected that large construction equipment, such as excavators, cranes, and pavers, would be used during project construction and would be staged on the project site. Table 3-2 details anticipated construction equipment for project demolition and construction.

## 3. Project Description

**Table 3-2 Construction Equipment**

Equipment	Quantity	Hours/Day	Horsepower
<b>Site Abatement</b>			
Backhoe Loaders	1	8	108
<b>Building Demolition</b>			
Concrete Saw	1	8	81
Excavator	3	8	400
Rubber Tired Dozer	2	8	255
Crushing/Processing Equipment	1	8	350
<b>Site Preparation</b>			
Rubber Tired Dozer	3	8	255
Tractors/Loaders/Backhoes	4	8	97
<b>Rough Grading</b>			
Excavators	2	8	162
Graders	1	8	174
Rubber Tired Dozers	2	8	255
Scrapers	4	8	361
Tractors/Loaders/Backhoes	2	8	97
Rollers/Sheepsfoot	1	8	400
Rollers/Sheepsfoot	1	8	150
Road Reclaimers	1	8	550
Scrapers	4	8	361
<b>Utility Trenching</b>			
Backhoe Loader	2	8	150
<b>Building Construction (Nonresidential and Parking Garage)</b>			
Crane	1	7	226
Forklift	3	8	89
Generator Set	1	8	84
Tractors/Loaders/Backhoes	3	7	97
Welders	1	8	46
<b>Building Construction (Residential)</b>			
Crane	1	7	226
Forklift	3	8	89
Generator Set	1	8	84
Tractors/Loaders/Backhoes	3	7	97
Welders	1	8	46
<b>Fine Grading</b>			
Graders	1	8	174
Tractors/Loaders/Backhoes	2	8	97
Rollers	1	8	150
<b>Asphalt Paving</b>			
Pavers	2	8	125
Paving Equipment	2	8	130
Rollers	2	8	80

### 3. Project Description

**Table 3-2 Construction Equipment**

Equipment	Quantity	Hours/Day	Horsepower
<b>Retaining Wall</b>			
Excavator with Auger/Drill	1	8	270
Excavator with Compactor	1	8	270
Rubber Tired Dozers	1	8	255
Shot-Crete Pump	1	8	100
<b>Deep Foundations</b>			
Excavator with Auger/Drill	1	8	270
Excavator with Compactor	1	8	270
Rubber Tired Dozers	1	8	255
<b>Architectural Coating</b>			
Air Compressors	1	6	78
<b>Finishing/Landscaping</b>			
Skip Tractor	1	8	98

### 3.4 INTENDED USES OF THE EIR

This DEIR examines the environmental impacts of the proposed project and various actions by the City and others to adopt and implement the proposed project, thereby enabling the City, other responsible agencies, and interested parties to make informed decisions with respect to the requested entitlements. The anticipated approvals required for this project are:

Lead Agency	Action
City of Laguna Niguel	<ul style="list-style-type: none"> <li>▪ Approval of General Plan Amendment GPA 19-01</li> <li>▪ Approval of Zone Change ZC 19-01</li> <li>▪ Approval of Zoning Code Amendment ZCA 19-01</li> <li>▪ Approval of Site Development Permit SDP 19-03</li> <li>▪ Approval of Vesting Tentative Tract Map VTTM 19024</li> <li>▪ Certification of the Laguna Niguel City Center Mixed Use Project EIR</li> <li>▪ Adoption of Findings of Fact (and Statement of Overrides, if required)</li> <li>▪ Adoption of a Mitigation Monitoring and Reporting Program</li> </ul>
Responsible Agencies	Action
County of Orange	<ul style="list-style-type: none"> <li>▪ Lease agreement with Laguna Niguel Town Center Partners LLC</li> </ul>
San Diego Regional Water Quality Control Board	<ul style="list-style-type: none"> <li>▪ Issuance of National Pollution Discharge Elimination System (NPDES) Permit</li> <li>▪ Issuance of Construction General Permit</li> </ul>

# 4. Environmental Setting

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## 4.1 INTRODUCTION

The purpose of this section is to provide, pursuant to provisions of the California Environmental Quality Act (CEQA) and the CEQA Guidelines, a “description of the physical environmental conditions in the vicinity of the project, as they exist at the time the notice of preparation is published, from both a local and a regional perspective.” The environmental setting will provide a set of baseline physical conditions that will serve as a tool from which the lead agency will determine the significance of environmental impacts resulting from the proposed project. Subsections of Chapter 5, *Environmental Analysis*, provide more detailed descriptions of the local, regional, state, and federal regulatory and environmental settings for specific topical areas.

## 4.2 REGIONAL ENVIRONMENTAL SETTING

### 4.2.1 Regional Location

The City of Laguna Niguel (City) is in southern Orange County of Southern California. It is bordered by Laguna Hills and Aliso Viejo to the north, San Juan Capistrano and Mission Viejo to the east, Dana Point to the south, and Laguna Beach and unincorporated Orange County (Aliso and Wood Canyons Wilderness Park) to the west.

Figure 3-1, *Regional Location*, provides a visual of the regional access to the City from various freeways. Interstate 5 (I-5) runs north-southeast of Laguna Niguel, connecting the City to the majority of the southern California region. State Route 73 (San Joaquin Hills Transportation Corridor) runs along the northern boundary of the City and connects with I-5 in the northeastern portion of Laguna Niguel. Pacific Coast Highway (US-1) runs near the southern boundary of Laguna Niguel and connects the City to the Pacific coast.

### 4.2.2 Regional Planning Considerations

#### **SCAG Regional Transportation Plan/Sustainable Communities Strategy**

The Southern California Association of Governments (SCAG) is a council of governments representing Imperial, Los Angeles, Orange, Riverside, San Bernardino, and Ventura counties. SCAG is the federally recognized metropolitan planning organization (MPO) for this region, which encompasses over 38,000 square miles. SCAG is a regional planning agency and a forum for addressing regional issues concerning transportation, the economy, community development, and the environment. SCAG is also the regional clearinghouse for projects requiring environmental documentation under federal and state law. In this role, SCAG reviews proposed development and infrastructure projects to analyze their impacts on regional planning programs. As the southern California region’s MPO, SCAG cooperates with the South Coast Air Quality Management District

## 4. Environmental Setting

(South Coast AQMD), the California Department of Transportation (Caltrans), and other agencies in preparing regional planning documents. SCAG has developed regional plans to achieve specific regional objectives, as discussed below.

### *Regional Transportation Plan/Sustainable Communities Strategy*

On September 13, 2020, SCAG adopted the 2020-2045 Regional Transportation Plan/Sustainable Communities Strategy (RTP/SCS), also known as Connect SoCal. The RTP/SCS is a long-range visioning plan that balances future mobility and housing needs with economic, environmental and public health goals. This long-range plan, which is a requirement of the state of California and the federal government, is updated by SCAG every four years as demographic, economic, and policy circumstances change. Connect SoCal embodies a collective vision for the region's future and is developed with input from local governments, county transportation commissions, tribal governments, nonprofit organizations, businesses, and local stakeholders. The 2020-2045 RTP/SCS includes growth forecasts that estimate employment, population, and housing growth. These estimates are used by SCAG, transportation agencies, and local agencies to anticipate and plan for growth. Connect SoCal works to address residents' challenges by promoting job accessibility, enabling shorter commutes, making communities safer and encouraging lower-cost housing developments. One of the key goals is to encourage development of diverse housing types in areas that are supported by multiple transportation options. The proposed project's consistency with the applicable 2020-2045 RTP/SCS policies is analyzed in detail in Section 5.10, *Land Use and Planning*.

### **South Coast Air Basin Air Quality Management Plan**

The City is in the South Coast Air Basin (SoCAB), which is managed by South Coast AQMD. The air pollutants emitted into the ambient air by stationary and mobile sources are regulated by federal and state law. Air pollutants for which AAQS have been developed are known as criteria air pollutants and include ozone (O<sub>3</sub>), carbon monoxide (CO), volatile organic compounds (VOC), nitrogen oxides (NO<sub>x</sub>), sulfur dioxide, coarse inhalable particulate matter (PM<sub>10</sub>), fine inhalable particulate matter (PM<sub>2.5</sub>), and lead. VOC and NO<sub>x</sub> are criteria pollutant precursors and go on to form secondary criteria pollutants, such as O<sub>3</sub>, through chemical and photochemical reactions in the atmosphere. Air basins are classified as attainment/nonattainment areas for particular pollutants depending on whether they meet the AAQS for that pollutant. The SoCAB is a nonattainment area for PM<sub>2.5</sub> under California and National AAQS and a nonattainment area for PM<sub>10</sub> under the California AAQS (CARB 2019). The SoCAB is designated extreme nonattainment for O<sub>3</sub> under the California AAQS (1-hour and 8-hour) and National AAQS (8-hour) (CARB 2019). The Los Angeles County portion of the SoCAB is designated nonattainment under the National AAQS for lead (South Coast AQMD 2012; CARB 2019). The proposed project's consistency with the applicable AAQS is discussed in Section 5.2, *Air Quality*.

### **Key Greenhouse Gas Emissions Reduction Legislation**

Current State of California guidance and goals for reductions in greenhouse gas (GHG) emissions are generally embodied in Executive Order S-03-05; Assembly Bill 32 (AB 32), the Global Warming Solutions Act (2008); and Senate Bill 375 (SB 375), the Sustainable Communities and Climate Protection Act.



## 4. Environmental Setting

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

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

AB 32 was passed by the California state legislature on August 31, 2006, to place the state on a course toward reducing its contribution of GHG emissions. AB 32 follows the 2020 tier of emissions reduction targets established in Executive Order S-3-05. Based on the GHG emissions inventory conducted for its 2008 Scoping Plan, the California Air Resources Board (CARB) approved a 2020 emissions limit of 427 million metric tons of carbon dioxide-equivalent (MMT<sub>CO<sub>2</sub>e</sub>) for the state (CARB 2008). In 2015, the governor signed Executive Order B-30-15 into law, establishing a GHG reduction target for year 2030, which was later codified under Senate Bill 32 (SB 32) (2016). CARB is required to update the Scoping Plan every five years and completed the last update in 2017. CARB is currently working on an update to the 2017 Scoping Plan, which it anticipates adopting in 2022.

In 2008, the Sustainable Communities and Climate Protection Act, SB 375, was adopted to connect the GHG emissions reductions targets established in the 2008 Scoping Plan for the transportation sector to local land use decisions that affect travel behavior. Its intent is to reduce GHG emissions from light-duty trucks and automobiles (excludes emissions associated with goods movement) by aligning regional long-range transportation plans, investments, and housing allocations to local land use planning to reduce vehicle miles traveled (VMT) and vehicle trips. Specifically, SB 375 required CARB to establish GHG emissions reduction targets for each of the 18 MPOs. SCAG is the MPO for the Southern California region.

Pursuant to the recommendations of the Regional Transportation Advisory Committee, CARB adopted per capita reduction targets for each of the MPOs rather than a total magnitude reduction target. SCAG's targets are an 8 percent per capita reduction from 2005 GHG emission levels by 2020 and a 13 percent per capita reduction from 2005 GHG emission levels by 2035 (CARB 2010). The 2020 targets were smaller than the 2035 targets because a significant portion of the built environment in 2020 has been defined by decisions that have already been made. In general, the 2020 scenarios reflect that more time is needed for large land use and transportation infrastructure changes. Most of the reductions in the interim are anticipated to come from improving the efficiency of the region's transportation network. The targets would result in 3 MMT<sub>CO<sub>2</sub>e</sub> of reductions by 2020 and 15 MMT<sub>CO<sub>2</sub>e</sub> of reductions by 2035. Based on these reductions, the passenger vehicle target in CARB's Scoping Plan (for AB 32) would be met (CARB 2010).

### ***2017 Update to the SB 375 Targets***

CARB is required to update the targets for the MPOs every eight years. In June 2017, CARB released updated targets and technical methodology and released another update in February 2018. The updated targets consider the need to further reduce VMT, as identified in the 2017 Scoping Plan Update, while balancing the need for additional and more flexible revenue sources to incentivize positive planning and action toward sustainable communities. Like the 2010 targets, the updated SB 375 targets are in units of percent per capita reduction in GHG emissions from automobiles and light trucks compared to 2005. This excludes reductions anticipated from implementation of state technology and fuels strategies and any potential future state strategies such as

## 4. Environmental Setting

statewide road user pricing. The proposed targets call for greater per capita GHG emission reductions from SB 375 than are currently in place, which for 2035, translates into proposed targets that either match or exceed the emission reduction levels in the MPOs' currently adopted sustainable communities strategies (SCS). As proposed, CARB staff's proposed targets would result in an additional reduction of over 8 MMTCO<sub>2</sub>e in 2035 compared to the current targets. For the next round of SCS updates, CARB's updated targets for the SCAG region are an 8 percent per capita GHG reduction in 2020 from 2005 levels (unchanged from the 2010 target) and a 19 percent per capita GHG reduction in 2035 from 2005 levels (compared to the 2010 target of 13 percent) (CARB 2018). CARB adopted the updated targets and methodology on March 22, 2018. All SCSs adopted after October 1, 2018, are subject to these new targets.

### 4.3 LOCAL ENVIRONMENTAL SETTING

#### 4.3.1 Location and Land Use

##### Project Location

The 25-acre project site (Assessor's Parcel Number 656-242-18) is owned by the County of Orange and would be leased to Laguna Niguel Town Center Partners LLC to develop the proposed mixed-use project. The site is immediately adjacent to City Hall and Orange County Fire Authority (OCFA) Station No. 5. It is generally bounded by Pacific Island Drive to the north, Alicia Parkway to the east, Crown Valley Parkway to the south, and multifamily residential communities to the west (e.g., Niguel Summit Apartments, El Niguel Terrace townhomes, and Charter Terrace single-family homes) (see Figures 3-2, *Local Vicinity*, and 3-3, *Aerial Photograph*).

##### Existing Land Uses

###### *On-Site Uses*

The project site encompasses the South County Justice Center (closed in 2008) in the eastern portion, the Orange County Library (Laguna Niguel Branch) in the southern portion, a county maintenance yard in the northwest corner, and mostly undeveloped land in the center of the site. Hardscape and landscaping improvements include parking lots, lawn areas, shrubs, and ornamental trees along the perimeters of the county maintenance yard, South County Justice Center, and Orange County Library.

###### *Surrounding Uses*

Surrounding land uses directly adjacent to the project site include the City Hall to the south; OCFA Fire Station No. 5 to the north; and Niguel Summit Apartments, El Niguel Terrace townhomes, and Charter Terrace single-family homes to the west. Directly across from Pacific Island Drive, Alicia Parkway, and Crown Valley Parkway are the Pacific Island shopping center, Town Center, and Crown Valley Mall, respectively (see Figure 3-3, *Aerial Photograph*).

###### *Site History*

The South County Justice Center was closed on July 3, 2008, in preparation for the construction of a new facility. In 2008, an EIR was prepared for the proposed "South Court Facility." The purpose of the project was

## 4. Environmental Setting

to provide a new 228,723-square-foot courthouse for the southern Orange County community, a 61,000-square-foot office building, a new 40,000-square-foot City Hall for Laguna Niguel, and a 3,050-square-foot expansion of the existing library on the site. The existing 33,300-square-foot courthouse was proposed to remain. As part of the 2008 EIR, a series of technical studies were conducted, including an air quality/greenhouse gas study, jurisdictional delineation, geotechnical report, asbestos survey, hydrology and hydraulics study, traffic impact analysis, and cultural resources study (Orange 2008). The County certified the South Court Facility EIR on April 29, 2008.

Of the proposed development analyzed in the 2008 EIR, only the new City Hall building and the library expansion were completed. The City Hall building at 30111 Crown Valley Parkway was completed on August 29, 2011. Construction of the library expansion began in October 2010 and was completed on August 19, 2012. The proposed courthouse facility was never constructed after the South County Justice Center was closed in 2008.

In 2015, a project named “AGORA” was proposed at the same site by LAB Holding, LLC. The proposal consisted of 280,000 square feet of commercial uses and up to 200 multifamily residential units. The project was abandoned prior to approval.

### 4.3.2 Aesthetics

The project site is in an urban area of Laguna Niguel and surrounded mostly by roadways and commercial and residential development. Residential properties to the north and west at higher elevations have views over the project site of the developed environment and landscaped hillsides.

The project site is partially improved with the existing South County Justice Center, Orange County Library, and county maintenance yard. The remaining area is undeveloped and vacant. There are no rock outcroppings or historic buildings on-site. There are some ornamental trees along the perimeter of the project site and scattered throughout the surface parking area, but these are not considered scenic resources. The trees are typical of landscaped ornamental trees in urban areas of southern California.

Refer to Section 5.1, *Aesthetics*, for additional information concerning existing scenic features, vistas, and resources, and an analysis of project-related impacts.

### 4.3.3 Biological Resources

The site is in an urban area of Laguna Niguel and is mostly surrounded by residential and commercial uses. Most of the undeveloped portion of the site is covered with nonnative grassland, landscaping, and ornamental vegetation associated with the on-site buildings. No sensitive plant species or sensitive habitat were documented on site during the 2016 and 2019 field surveys. Additionally, the project site is not within US Fish and Wildlife Service critical habitat for federally threatened and endangered species. One sensitive wildlife species was observed during the August 2019 field survey, the Cooper’s hawk (*Accipiter cooperii*), a California Department of Fish and Wildlife Watch List species when nesting. Additionally, there is foraging and nesting potential on-site for other avian species, including sensitive species such as the white-tailed kite (*Elanus leucurus*), which is

## 4. Environmental Setting

California Fully Protected. The eucalyptus trees and other ornamental trees provide habitat for nesting, and the open space areas provide habitat for foraging.

The March 2016 and August 2019 biological surveys concluded that there are no jurisdictional waters present on-site.

Refer to Section 5.3, *Biological Resources*, for additional information on biological resources in the project area and an analysis of project-related impacts.

### 4.3.4 Climate and Air Quality

The annual average temperature varies little throughout the SoCAB, ranging from the low to middle 60s, measured in degrees Fahrenheit (°F). With a more pronounced oceanic influence, coastal areas show less variability in annual minimum and maximum temperatures than inland areas. The climatological station nearest to the project site that best represents the climatological conditions of the project area is the Laguna Beach, California Monitoring Station (ID 044647). The average low is reported at 43.0°F in January, and the average high is 78.1°F in August (WRCC 2021).

In contrast to a very steady pattern of temperature, rainfall is seasonally and annually highly variable. Almost all rain falls from November through May. Rainfall averages 12.52 inches per year in the vicinity of the project site (WRCC 2021). Annual average humidity is 70 percent along the coast and 57 percent in the eastern portions of the SoCAB. Since 2013, Southern California, including Laguna Niguel, has experienced prolonged drought conditions.

The SoCAB is a nonattainment area for PM<sub>2.5</sub> under California and National AAQS and a nonattainment area for PM<sub>10</sub> under the California AAQS (CARB 2019). The SoCAB is designated extreme nonattainment for O<sub>3</sub> under the California AAQS (1-hour and 8-hour) and National AAQS (8-hour) (CARB 2019). The Los Angeles County portion of the SoCAB is designated nonattainment under the National AAQS for lead (South Coast AQMD 2012; CARB 2019). An air quality analysis was performed for the project and the results are discussed in Section 5.2, *Air Quality*. Additionally, project-related impacts from GHG emissions are discussed in Section 5.7, *Greenhouse Gas Emissions*.

### 4.3.5 Cultural and Paleontological Resources

Laguna Niguel, including the project site, is situated in a region that was inhabited by the Luiseño and Gabrieleño Native American groups. The Luiseño occupied approximately 1,500 square miles of the southern California coast—from the Santiago Peak to the north, the Palomar Mountains to the east, and San Luis Rey River to the south.

The Luiseño and the Gabrieleño have a history of interaction and border one another's territories at Aliso Creek, just north of the project site. Gabrieleño territory also encompassed over 1,500 square miles and included the San Fernando Valley, San Gabriel Valley, and Los Angeles-Santa Ana River Plain as well as the islands of Santa Catalina, San Clemente, and San Nicholas (Orange 2008).

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The records search results indicate that four cultural resources were previously recorded within one mile of the project site, and two are within the project boundaries. Resource CA-ORA-33 was recorded in 1960 as a prehistoric shell midden site with manos, metate fragments, a stone pendant, scrapers, and choppers present. Test excavations in 1960 concluded that the site was a seasonal camp. It is at the southern boundary of the site. Given the grading activities that occurred to build the existing parking lots, it is unlikely that any portion of the site has been preserved.

Resource CA-ORA-131 was recorded in 1963 as a prehistoric site. The site record contains minimal details but states that the resource CA-ORA-131 was destroyed in 1976. The cultural resource site was at the eastern boundary of the project site. Significant grading and filling have taken place in this area to level the land for the library and other development. The grading and filling in the location of CA-ORA-131 makes it improbable that any portion of the site is preserved. The locations of these two known sites are completely developed.

A Sacred Lands File search request was submitted to the NAHC to inquire about the presence/absence of sacred or religious sites in the vicinity of the project area. On January 28, 2016, the NAHC responded that there are no sacred lands within the project area or a half-mile radius.

No paleontological resources are known to exist within the project area. The Capistrano Formation underlies the project area. The closest vertebrate fossil locality is LACM 4166, found nearby in the Capistrano Formation, south of the project area along Crown Valley Parkway and north of the intersection with Paseo del Niguel. LACM 4166 included fossil specimens of bonito shark (*Isurus*), bull shark (*Carcharhinus*), undetermined bony fish (*Osteichthyes*), sea lion (*Otariidae*), and porpoise (*Phocoenidae*).

Farther from the project site, several fossil localities have been found in the Capistrano Formation north of the project area along Alicia Parkway. These included specimens of sea lions, whales (*Cetacea*), and sea cow (*Hydrodamalis cuetae*).

Refer to Sections 5.4, *Cultural Resources*, and 5.6, *Geology and Soils*, for additional information concerning historical, archaeological, and paleontological resources and an analysis of project impacts on such resources.

### 4.3.6 Geology and Landform

The project area is at the southern portion of the Los Angeles Basin, which is part of the Peninsular Range Geomorphic Province of California. The Peninsular Ranges are traversed by dominant northwest-trending faults, including the San Andreas Fault approximately 54 miles northeast of the project site; Whittier-Elsinore Fault, approximately 21 miles northeast of the site; and Newport-Inglewood Fault, approximately 18 miles west of the site. All three of these faults are classified active. They have had surface displacement within the last 11,000 years, and earthquakes have been recorded along all three faults in historic time. In addition to these active faults, blind thrust faults are thought to be present under the Los Angeles Basin. The Pelican Hills Fault passes approximately 0.5 mile north of the site and is classified potentially active (CGS 2010). There are no active or potentially active fault traces in the City.

The project site is at the bottom of a steep hillside that borders the site's western boundary. As shown in Figure 4-1, *Site Topography*, the terrain is varied throughout the project site. There is a net elevation of 50 feet from the

## 4. Environmental Setting

low point of approximately 320 feet above mean sea level in the southern corner (site entrance at Crown Valley Parkway) to 370 feet above mean sea level at the top of a small knoll in the northern corner of the site (near Pacific Island Drive/Alicia Parkway intersection). Materials underlying the site are primarily artificial fill and bedrock; the soils of the site generally consist of alo clay and botella clay loam soil components. Bedrock throughout the project area consists of sedimentary deposits of the marine Late Miocene Capistrano Formation. (Orange 2008).

### 4.3.7 Hydrology

The project site is in the Aliso Creek Watershed, which spans 35 square miles within the South Orange County Water Management Area. The Aliso Creek Watershed is a long, narrow coastal canyon with headwaters in the Cleveland National Forest and encompasses portions of the cities of Aliso Viejo, Dana Point, Laguna Beach, Laguna Hills, Laguna Niguel, Laguna Woods, Lake Forest, and Mission Viejo. The creek ultimately discharges into the Pacific Ocean at Aliso Beach.

The west side of the site is bounded by existing 2:1 manufactured slopes, and there are manufactured 2:1 slopes on the easterly side dropping to Alicia Parkway.

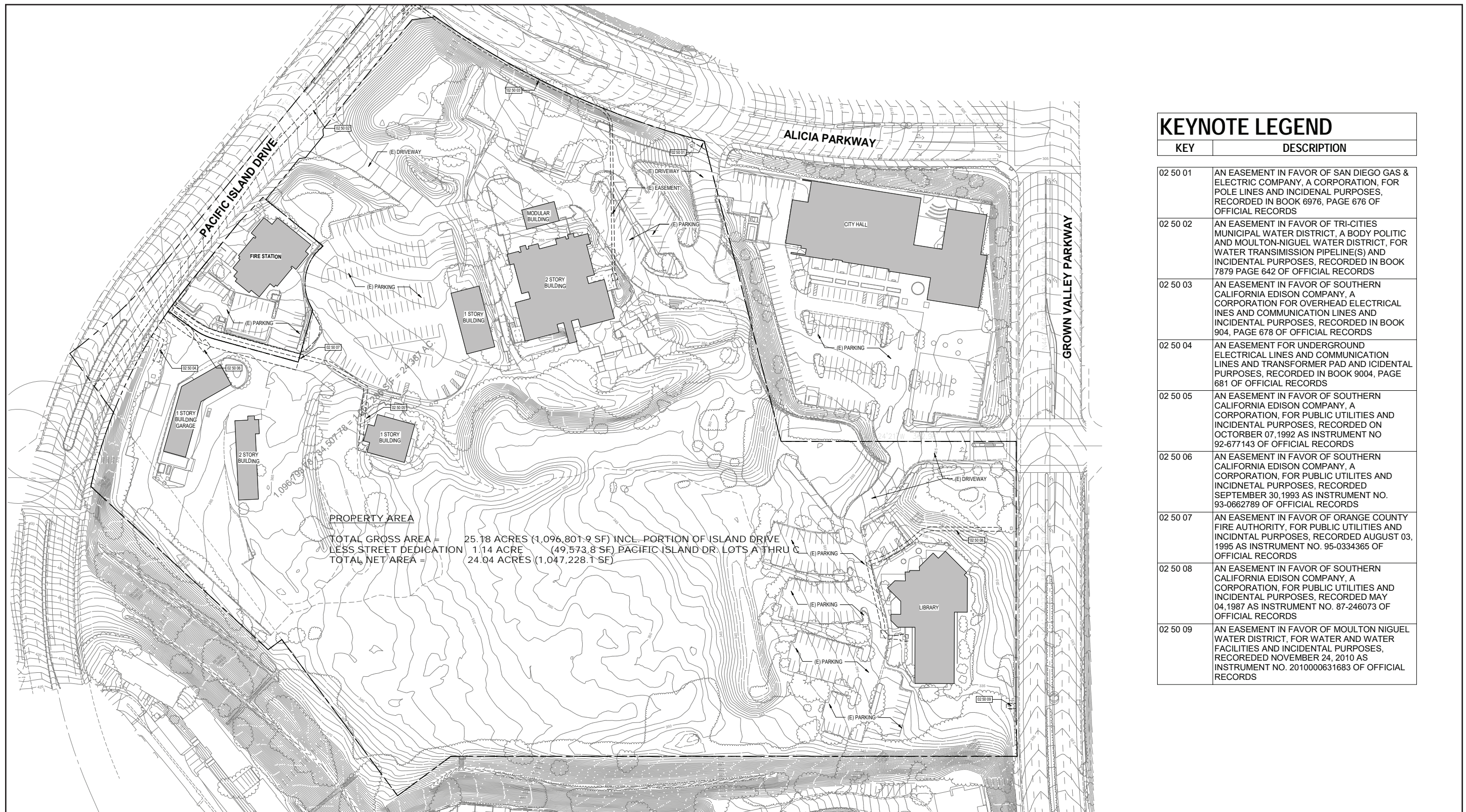
The majority of existing runoff is caught in above-grade drainage inlets throughout the project site and is diverted into the City's storm drain system southeast of the site in Crown Valley Parkway. Under existing conditions, runoff is discharged from the site at three places (see Figure 5.9-1, *Existing Conditions Hydrology Map*):

- Runoff from the bulk of the project site drains to the south. There are several drainage devices and catch basins on the southern portion of the project site that convey collected runoff to an existing 60-inch storm drain running through the property from Pacific Island Drive in the north to Crown Valley Parkway in the southwest. This storm drain is Orange County Flood Control District Facility No. J03P07 and connects off-site to a 96-inch storm drainpipe, which conveys runoff to Sulphur Creek Channel and Sulphur Creek Reservoir.
- Runoff drains via surface flow into Crown Valley Parkway at the drive entrance that serves both the Laguna Niguel Library and Laguna Niguel City Hall. Collected runoff then flows east along Crown Valley Parkway before entering the storm drain system discharging to Sulphur Creek Channel.

Surface runoff from the north end of the site flows north toward Pacific Island Drive. Runoff on Pacific Island Drive flows east toward the intersection with Alicia Parkway, then south along Alicia Parkway toward Crown Valley Parkway.

Historical groundwater depths at the project site range from 5 to 20 feet. During the geotechnical evaluation, groundwater was encountered at depths of approximately 14 to 24.5 feet below the existing site.

Figure 4-1 - Site Topography  
4. Environmental Setting



**KEYNOTE LEGEND**

KEY	DESCRIPTION
02 50 01	AN EASEMENT IN FAVOR OF SAN DIEGO GAS & ELECTRIC COMPANY, A CORPORATION, FOR POLE LINES AND INCIDENTAL PURPOSES, RECORDED IN BOOK 6976, PAGE 676 OF OFFICIAL RECORDS
02 50 02	AN EASEMENT IN FAVOR OF TRI-CITIES MUNICIPAL WATER DISTRICT, A BODY POLITIC AND MOULTON-NIGUEL WATER DISTRICT, FOR WATER TRANSMISSION PIPELINE(S) AND INCIDENTAL PURPOSES, RECORDED IN BOOK 7879 PAGE 642 OF OFFICIAL RECORDS
02 50 03	AN EASEMENT IN FAVOR OF SOUTHERN CALIFORNIA EDISON COMPANY, A CORPORATION FOR OVERHEAD ELECTRICAL LINES AND COMMUNICATION LINES AND INCIDENTAL PURPOSES, RECORDED IN BOOK 904, PAGE 678 OF OFFICIAL RECORDS
02 50 04	AN EASEMENT FOR UNDERGROUND ELECTRICAL LINES AND COMMUNICATION LINES AND TRANSFORMER PAD AND INCIDENTAL PURPOSES, RECORDED IN BOOK 9004, PAGE 681 OF OFFICIAL RECORDS
02 50 05	AN EASEMENT IN FAVOR OF SOUTHERN CALIFORNIA EDISON COMPANY, A CORPORATION, FOR PUBLIC UTILITIES AND INCIDENTAL PURPOSES, RECORDED ON OCTOBER 07, 1992 AS INSTRUMENT NO. 92-677143 OF OFFICIAL RECORDS
02 50 06	AN EASEMENT IN FAVOR OF SOUTHERN CALIFORNIA EDISON COMPANY, A CORPORATION, FOR PUBLIC UTILITIES AND INCIDENTAL PURPOSES, RECORDED SEPTEMBER 30, 1993 AS INSTRUMENT NO. 93-0662789 OF OFFICIAL RECORDS
02 50 07	AN EASEMENT IN FAVOR OF ORANGE COUNTY FIRE AUTHORITY, FOR PUBLIC UTILITIES AND INCIDENTAL PURPOSES, RECORDED AUGUST 03, 1995 AS INSTRUMENT NO. 95-0334365 OF OFFICIAL RECORDS
02 50 08	AN EASEMENT IN FAVOR OF SOUTHERN CALIFORNIA EDISON COMPANY, A CORPORATION, FOR PUBLIC UTILITIES AND INCIDENTAL PURPOSES, RECORDED MAY 04, 1987 AS INSTRUMENT NO. 87-246073 OF OFFICIAL RECORDS
02 50 09	AN EASEMENT IN FAVOR OF MOULTON NIGUEL WATER DISTRICT, FOR WATER AND WATER FACILITIES AND INCIDENTAL PURPOSES, RECORDED NOVEMBER 24, 2010 AS INSTRUMENT NO. 201000631683 OF OFFICIAL RECORDS



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### 4.3.8 Noise

Community noise levels are measured in terms of the “A-weighted decibel” (dBA). A-weighting is a frequency correction that correlates overall sound pressure levels to the frequency response of the human ear. The noise rating scale used in California for land use compatibility assessment is the Community Noise Equivalent Level (CNEL). The CNEL scale represents a time-weighted, 24-hour average noise level based on the A-weighted decibel.

In general, the City is subject to typical urban and suburban noise sources. Noise from traffic flows, commercial and retail centers, temporary construction, property maintenance activities, and day-to-day outdoor activities (e.g., periodic landscaping, children playing, animal sounds) characterizes the City’s noise environments. The City also has several transportation noise sources—the I-5 and SR-73 freeways as well as major arterials such as Crown Valley Parkway, Aliso Creek Road, Niguel Road, Cabot Road, Alicia Parkway, and La Paz Road. There are no notable noise sources related to railroads or aircraft facilities near the project site.

Certain land uses are particularly sensitive to noise and vibration, including schools, residences, hospital facilities, religious facilities, and open space/recreation areas where quiet environments are necessary for the enjoyment, public health, and safety of the community. Commercial and industrial uses are not considered noise- and/or vibration-sensitive uses.

The nearest sensitive uses to the project site include residential uses, a church, and a daycare facility. The nearest residential uses are adjacent to the southwest. The Laguna Niguel Presbyterian Church is across the street from the project site, at the corner of Pacific Island Drive and Alicia Parkway. Additional residential uses are across Crown Valley Parkway and Pacific Island Drive.

Refer to Section 5.11, *Noise*, for additional information concerning the noise environment and an analysis of project-related noise impacts.

### 4.3.9 Transportation

CEQA no longer considers auto delay or traffic congestion a potentially significant environmental impact. The Laguna Niguel General Plan, however, does include level of service (LOS) standards for traffic. The traffic impact analysis (TIA) prepared for the Laguna Niguel City Center project therefore includes an analysis of the areawide roadway network and potential project-related and cumulative impacts of the proposed project on the network. The study determined the existing and projected LOS for 32 area intersections. Pursuant to SB 743 and CEQA Guidelines Section 15064.3, the reduction in LOS standards from a project is no longer defined as a valid CEQA impact and VMT is defined as the most appropriate measure of transportation impacts. The Laguna Niguel Transportation Assessment Guidelines establish procedures, methodology, and thresholds of significance for assessing VMT impacts. The LOS analysis is presented in the TIA and this EIR for informational purposes.

The proposed project is not in a low VMT area or a transit priority area. Additionally, the proposed project is neither an affordable housing project nor could it be classified as a redevelopment. Most of the proposed project’s land uses do not fall under the locally serving land uses listed in the Transportation Assessment

## 4. Environmental Setting

Guidelines, and the proposed project exceeds the screening threshold of 50,000 square feet. Thus, the proposed project could not be screened out as a local-serving land use project. Also, since the proposed project's estimated daily trip generation is greater than 500, it does not meet the City's screening criteria for Small Projects and cannot be screened out of VMT analysis. A VMT analysis was prepared for the proposed project. The proposed project's residential and nonresidential components of the project were analyzed separately to identify whether any of the project components would have a significant VMT impact.

The nearest freeways to the project site are SR-73 and I-5. The primary arterials bordering the project site are described below.

- **Crown Valley Parkway** is a six-lane Major Arterial with a speed limit of 45 miles per hour (mph), bike lanes in each direction, and sidewalks on both sides of the street near the study location. It provides access to the San Joaquin Hills Transportation Corridor, or SR-73, via Greenfield Drive, and to the San Diego Freeway (I-5) approximately three miles north of the project site. It also connects to the Pacific Coast Highway (SR-1), approximately three miles south of the project site.
- **Alicia Parkway** is a six-lane Major Arterial with a speed limit of 40 mph, bike lanes in each direction, and sidewalks on both sides of the street near the study location. It provides access to SR-73 via Aliso Creek Road and to I-5 approximately three miles north of the project site. Alicia Parkway terminates at Crown Valley Parkway at the northeast corner of the project site.
- **Pacific Island Drive** is a four-lane Primary Arterial with a speed limit of 45 mph, bike lanes in each direction, and sidewalks on both sides of the street near the study location. North of Alicia Parkway it transitions to a two-lane collector with a center two-way left-turn lane and changes names to Ivy Glenn Drive. There are no bike lanes on Ivy Glenn Drive. To the south, Pacific Island Drive changes names to Camino Del Avion at Crown Valley Parkway, where it continues as a four-lane divided roadway without bike lanes.

Orange County Transportation Authority (OCTA) provides public transportation along Alicia Parkway and Crown Valley Parkway. The bus stops nearest to the project site are a sheltered bus stop along the east side of Crown Valley Parkway, just north of Alicia Parkway, and an unsheltered bus stop along the west side of Alicia parkway, just south of Pacific Island Drive. The bus routes are:

1. **OCTA Route 85** provides service from Mission Viejo to Laguna Niguel; via Marguerite Parkway to Medical Center Road to Crown Valley Parkway. This route operates from 5:35 am to 10:04 pm, Monday through Friday.
2. **OCTA Route 87:** provides service from Rancho Santa Margarita to Laguna Niguel; via Alicia Parkway. This route operates from 5:59 am to 7:43 pm, Monday through Friday.

There are Class II bike lanes along both sides of Crown Valley Parkway, Alicia Parkway, and Pacific Island Drive. There are also pedestrian sidewalks along both sides of all roadways surrounding the perimeter of the project site.

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Refer to Section 5.12, *Transportation*, for additional information concerning existing transportation facilities and traffic conditions and an analysis of project-related impacts.

### 4.3.10 Public Services and Utilities

#### Public Services

##### *Fire Services*

The City partners with the OCFA for fire and emergency medical services. Three OCFA fire stations are within the City limits. OCFA Station No. 5 at 23600 Pacific Island Drive is within the proposed project's boundary and provides fire and emergency services to the project site.

##### *Police Services*

The City contracts police services from the Orange County Sheriff's Department. The City operates a Sheriff's substation in City Hall, directly southeast of the project site.

##### *School Services*

The Capistrano Unified School District provides school services to residents of Laguna Niguel. Future students would attend Moulton Elementary School (K-5) at 29851 Highlands Avenue, Niguel Hills Middle School (6-8) at 29070 Paseo Escuela, and Dana Hills High School (9-12) at 33333 Golden Lantern in Dana Point.

##### *Parks and Recreation Services*

Park services are provided by the City's Parks and Recreation Department. Nearby parks to the project site include La Hermosa Park, Crown Valley Community Park, and Niguel Woods Park, approximately 0.8-, 0.7-, and 0.5-mile away, respectively. There are also two regional parks in Laguna Niguel near the project site. Laguna Niguel Regional Park is approximately 1.30 miles away from the project site, and Salt Creek Corridor Regional Park is approximately 1 mile away.

##### *Library Services*

The City is a member of the Orange County Public Libraries system, which is a network of community libraries throughout the county. The Laguna Niguel Library is on the project site at 30341 Crown Valley Parkway.

#### Utilities and Service Systems

##### *Water*

Domestic and recycled water services for the project site are provided by the Moulton Niguel Water District (MNWD). Potable water transmission mains are in Alicia Parkway and Crown Valley Parkway.

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### *Wastewater*

MNWD provides sewer service to the City, including the project site. A main sewer line is in Crown Valley Parkway. Wastewater from the MNWD's service area is treated at three South Orange County Wastewater Authority treatment plants as well as the 3A Treatment Plant, which is jointly owned by Santa Margarita Water District and MNWD. Wastewater generated on the project site would be treated at the Regional Treatment Plant on La Paz Road in Laguna Niguel.

### *Solid Waste*

CR&R Environmental Services provides solid waste collection services to the project area. Solid waste is hauled to and disposed at landfills operated by OC Waste and Recycling, primarily at the Prima Deshecha Sanitary Landfill in San Juan Capistrano and the Frank R. Bowerman Sanitary Landfill in Irvine.

### *Dry Utilities*

Southern California Edison (SCE) provides electricity services to the project site, and Southern California Gas Company provides natural gas services to the site.

Sections 5.13, *Public Services*, 5.14, *Recreation*, and 5.17, *Utilities and Service Systems*, provide additional information regarding existing public service, recreation, and utilities conditions. An analysis of project-related impacts is also provided in each section.

## 4.3.11 General Plan and Zoning

### **Laguna Niguel General Plan**

The Laguna Niguel General Plan land use designations for the site are Community Commercial, Professional Office, and Public/Institutional (see Figure 4-2, *Existing General Plan Land Use Designations*).

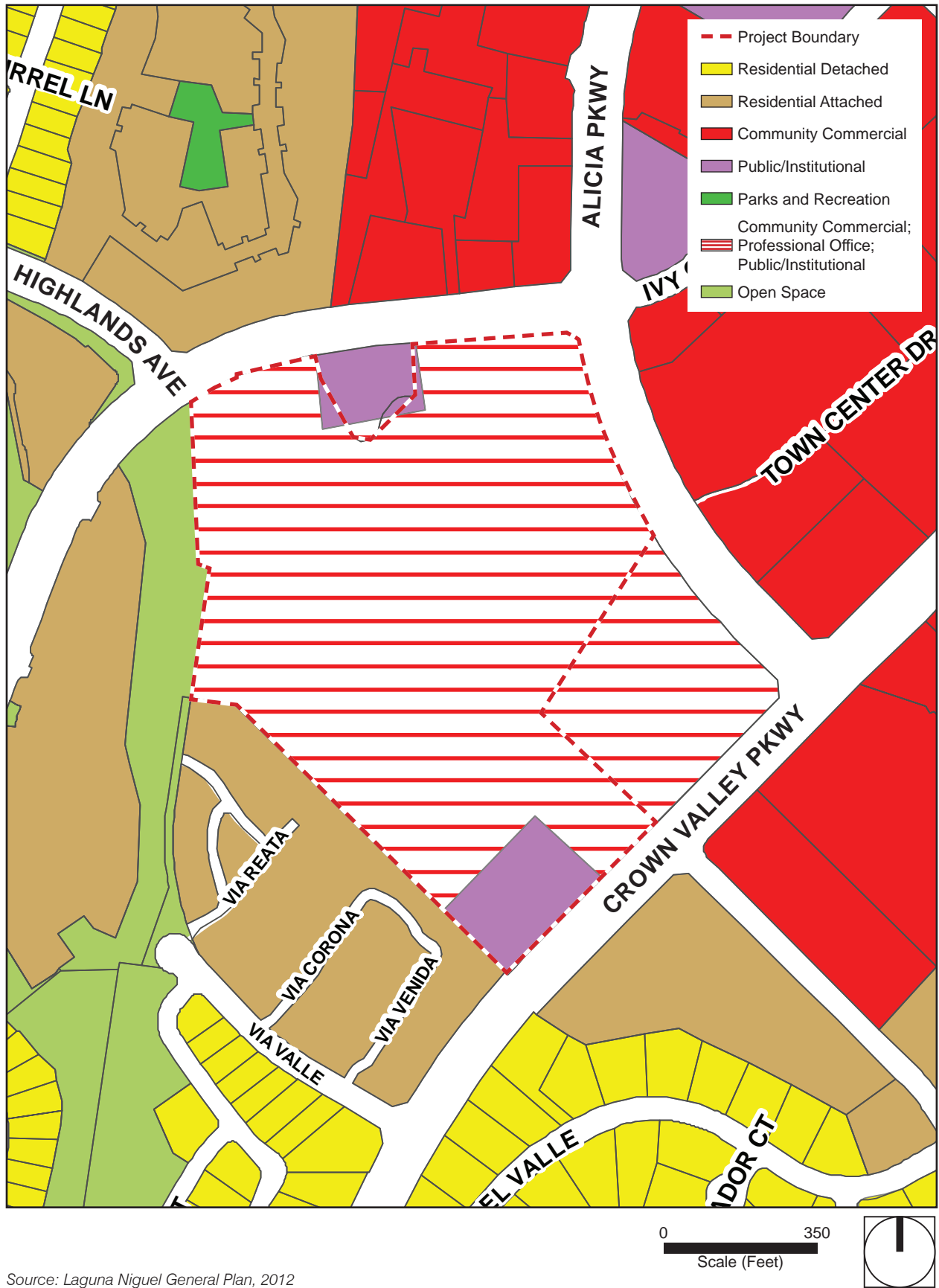
The Community Commercial land use designation encourages development of larger planned commercial centers and shopping complexes with broad ranges of goods and services intended to serve the entire community. The Professional Office designation provides for professional offices, corporate headquarters, research and development, and administrative offices. The Public Institutional designation allows a wide range of public, quasi-public, and special-purpose private facilities that provide a variety of governmental or social services to the community.

### **Laguna Niguel Zoning Code**

The project site is zoned Community Commercial (CC) District. The CC District is intended for medium- and large-scale commercial areas near arterial highways and serving a greater trade area. Goods and services include retail, office, service, lodging, and entertainment uses.

OCFA Station No. 5 and the Orange County Library are located within the project boundary and are zoned Public/Institutional (PI) District. The PI District allows a wide range of public, semipublic, and special-purpose private facilities.

Figure 4-2 - Existing General Plan Land Use Designations  
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Source: Laguna Niguel General Plan, 2012

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## 4.4 ASSUMPTIONS REGARDING CUMULATIVE IMPACTS

Section 15130 of the CEQA Guidelines states that cumulative impacts shall be discussed where they are significant. It further states that this discussion shall reflect the level and severity of the impact and the likelihood of occurrence, but not in as great a level of detail as that necessary for the project alone. Section 15355 of the Guidelines defines cumulative impacts to be “...two or more individual effects which, when considered together, are considerable or which compound or increase other environmental impacts.” Cumulative impacts represent the change caused by the incremental impact of a project when added to other proposed or committed projects in the vicinity.

The CEQA Guidelines (Section 15130 [b][1]) state that the information utilized in an analysis of cumulative impacts should come from one of two sources:

- A. A list of past, present and probable future projects producing related cumulative impacts, including, if necessary, those projects outside the control of the agency.
- B. A summary of projections contained in an adopted General Plan or related planning document designed to evaluate regional or area-wide conditions.

The cumulative impact analyses in Chapter 5, *Environmental Analysis*, of this DEIR primarily use Method A. The City compiled a list of cumulative projects for analysis under CEQA. These cumulative projects are listed and numbered in Table 4-1 and mapped on Figure 4-3, *Cumulative Projects Location Map*.

**Table 4-1 Cumulative Projects**

No.	Project	Address	Land Use	Dwelling Units (DU)	Non-residential Area (SF)	Other
1	The Cove at El Niguel	30667 Crown Valley Parkway City of Laguna Niguel	Condominiums	22	-	-
2	Sunpointe	Southeast corner of Paseo De Colinas and Cabot Road City of Laguna Niguel	Single-Family	53	-	-
3	Senior Living Project	27762 Forbes Road City of Laguna Niguel	Senior Adult Assisted Living Continuing Care	35 44 32	-	-
4	Picerne Apartments	Northeast corner of Crown Valley Parkway at Cabot Road City of Laguna Niguel	Apartments	425	-	-
5	Forbes Road Apartment	Northeast corner of Crown Valley Parkway at Forbes Road City of Laguna Niguel	Apartments Retail	300 -	- 8742	-
6	River Street Development	Northeast corner of Paseo Adelanto and Del Obispo Street City of San Juan Capistrano	Commercial	-	64,900	-
7	San Juan Hills High School	West of La Pata Avenue City of San Juan Capistrano	Public High School	-	-	2,200 Students

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**Table 4-1 Cumulative Projects**

No.	Project	Address	Land Use	Dwelling Units (DU)	Non-residential Area (SF)	Other
8	J. Serra Catholic High School	North and South of J. Serra Road, west of I-5 City of San Juan Capistrano	Private high School	-	-	2,000 Students
9	Pacifica San Juan	East of I-5 extending from McCracken Hill south to Camino Las Ramblas City of San Juan Capistrano	Estates Single-Family Condominiums	23 311 82	-	-
10	Plaza Banderas	Northeast corner of El Camino Real & State Route 74 City of San Juan Capistrano	Hotel Restaurant	-	- 3,898	124 Rooms -
11	Distrito La Novia - San Juan Meadows	North and south sides of La Novia Avenue, east of Valle Road City of San Juan Capistrano	Retail General Office Building Condominiums Apartments Single-Family Horse Equestrian Center	- - 90 50 93 -	75,100 16,000 - - - -	- - - - - 500 Horses
12	LDS Church	North side of Vista Montana, west of La Pata Avenue City of San Juan Capistrano	Church	-	16,558	-
13	The Farm Specific Plan	32382 Del Obispo Street City of San Juan Capistrano	Single-Family	180	-	-
14	Tirador Residential Project	Terminus of Calle Arroyo City of San Juan Capistrano	Townhomes Single-Family	89 47	-	-
15	Proposed Drive Through Coffee Shop	32291 Camino Capistrano City of San Juan Capistrano	Coffee Shop	-	2,000	-
16	Ganahl Lumber	North of Stonehill Drive, adjacent to San Juan Creek	Fast-Food Coffee Shop Car Storage	-	5,040 1,710	- - 622 Spaces
17	Downtown Playhouse	Southeast corner of Ortega Highway and El Camino Real City of San Juan Capistrano	Theater Commercial Office	-	18,828 31,385 3,268	-
18	Mission Grill	31721 Camino Capistrano City of San Juan Capistrano	Restaurant Retail Office	-	4,750 4,750 7,500	-
19	St. Edwards Pastoral Center	33926 Calle La Primavera City of Dana Point	Church Expansion	-	11,463	-
20	Headlands Specific Plan	Dana Point Marine Life Refuge City of Dana Point	Single-Family Hotel Commercial Hostel Conservation Park Open Space	40 - - - - -	- - 35,000 - - -	- 90 Rooms - 40 Beds 28 Acres 41 Acres
21	Dana Point Harbor Revitalization	Dana Point Harbor City of Dana Point	Retail/Restaurant Parking Deck	-	25,000 -	- 610 Spaces
22	Doheny Plaza	34202 Del Obispo Street City of Dana Point	Condominiums Commercial	169 -	- 2,500	-



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**Table 4-1 Cumulative Projects**

No.	Project	Address	Land Use	Dwelling Units (DU)	Non-residential Area (SF)	Other
23	Dana Point Town Center	South side of Pacific Coast Highway, between Blue Lantern Street and Del Obispo Street City of Dana Point	Retail/Restaurant Office Institutional Residential	- - - 237	192,165 31,244 50,000 -	-
24	Orion Public Storage	4 Orion City of Aliso Viejo	Storage Facility	-	17,528	-
25	The Ranch	100 Park Avenue City of Aliso Viejo	Community Facility	-	16,000	-
26	Polaris Office Building	6 Polaris City of Aliso Viejo	Office Parking Structure	-	42,400 -	- 423 Spaces
27	Soka University Residence Halls	Soka University City of Aliso Viejo	Student Dormitory	102	-	-
28	Oakbrook Village	Avenida de la Carlota, north of Los Alisos Boulevard City of Laguna Hills	Retail Multi-Family	- 289	139,000 -	-
29	Activcare	24888 Alicia Parkway City of Laguna Hills	Elderly Care Housing	-	-	72 Beds
30	MNWD Facility Expansion	26161 Gordon Road City of Laguna Hills	Community/Private Institution	-	64,000	-
31	Five Laguna	Laguna Hills Mall City of Laguna Hills	Mall Medical Office Apartments	- - 988	843,706 45,890 -	-
<b>Total</b>				<b>3,701</b>	<b>1,780,325</b>	<b>-</b>

Source: LLG 2019.

Cumulative impact analyses for several topical sections are also based on the most appropriate geographic boundaries for the respective impact. For example, cumulative hydrological impacts are based on the area's watershed (Aliso Creek Watershed), and wastewater impacts are based on the Moulton Niguel Water District's service boundary, which includes other jurisdictions in addition to Laguna Niguel. Several potential cumulative impacts encompassing regional boundaries (e.g., traffic, air quality, greenhouse gases) are addressed in the context of the growth assumptions in various regional plans. Following is a summary of the approach and extent of cumulative impacts, which are further detailed in each topical environmental section.

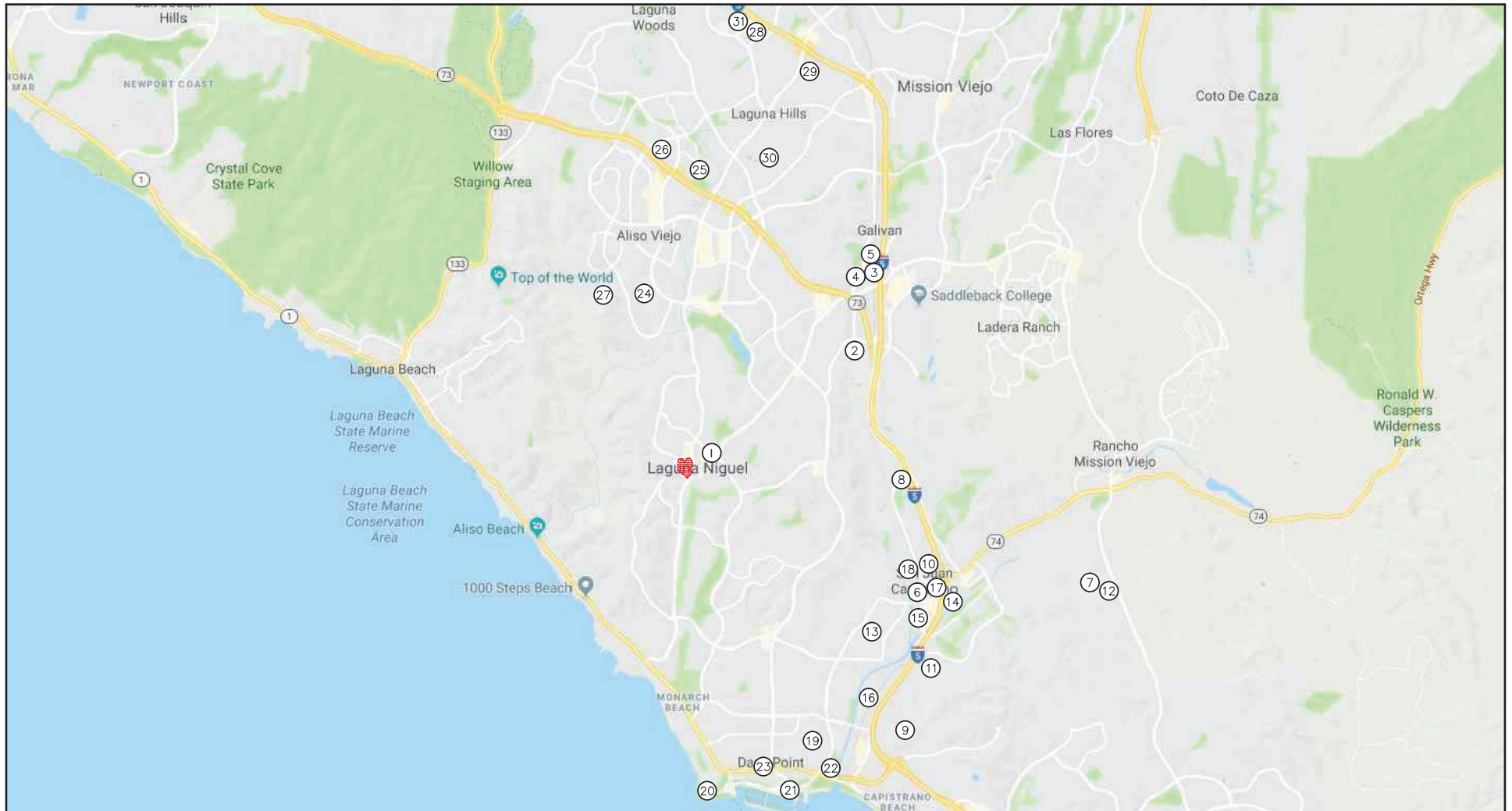
- **Aesthetics.** Cumulative impacts consider the potential for the project and related projects in the same visual area to impact scenic resources in the City, including scenic viewsheds and landforms, open space, assessment of area-wide vistas, and coastal view roads. The aesthetic analysis also considers cumulative compliance with City plans, programs, and regulations governing scenic resources.
- **Air Quality.** Air quality impacts are both regional impacts and localized impacts. For cumulative impacts, the analysis is based on the regional boundaries of the South Coast Air Basin.

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- **Biological Resources.** Cumulative impacts consider potential impacts to sensitive habitat, protected species, and jurisdictional resources on a regional scale.
- **Cultural Resources.** Cumulative impacts consider the potential for the proposed project in conjunction with other past, present, and foreseeable future development projects to result in cumulative impacts on cultural resources in the area within a one-half-mile radius from the project site boundaries for historical, archaeological, and paleontological resources, as well as the project's contribution to existing cumulative impacts to cultural resources in this area.
- **Energy.** The cumulative impact for electricity is based on the Southern California Edison service area. Cumulative impacts associated with the use of natural gas is based on the Southern California Gas Company service area. Cumulative impacts for fuel usage, gasoline and diesel fuels, are based on use within the County.
- **Geology and Soils.** Geologic and soils impacts are site specific and generally do not combine to result in cumulative impacts.
- **Greenhouse Gas (GHG) Emissions.** GHG emissions impacts are not site-specific impacts but cumulative global impacts. Therefore, the analysis in Section 5.5 is the project's cumulative contribution to global climate change.
- **Hazards and Hazardous Materials.** The cumulative impact for hazards and hazardous materials is based on the project site and immediate surrounding area. The Orange County's Environmental Health Division is the Certified Unified Program Agency (CUPA) for Laguna Niguel.
- **Hydrology and Water Quality.** Cumulative hydrological and water quality impacts are based on the boundaries of the Aliso Creek Watershed.
- **Land Use and Planning.** Cumulative impacts are based on applicable jurisdictional boundaries and related plans, including the Laguna Niguel General Plan and regional land use plans (e.g., SCAG's RTP/SCS).
- **Noise.** Cumulative noise impacts are based on the traffic study, which considers the regional growth based on citywide and regional projections.
- **Population and Housing.** Cumulative impacts are based on regional demographic patterns identified in regional plans (e.g., SCAG's RTP/SCS).
- **Public Services.** Cumulative impacts are based on potential related development within each service provider's boundaries—Orange County Fire Authority, Orange County Sheriff's Department, Capistrano Unified School District, and Orange County Public Library.

**Recreation.** Cumulative impacts are assessed relative to the City standards and are based on impacts within the City's boundaries.

Figure 4-3 - Cumulative Projects Location Map  
4. Environmental Setting



**KEY**  
① = CUMULATIVE PROJECT LOCATION  
[Red Hatched Box] = PROJECT SITE



Source: Linscott, Law & Greenspan Engineers, 2019

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- **Transportation.** Cumulative VMT impacts consider the impacts of future growth and development in the City of Laguna Niguel and vicinity on the roadway system serving the area.
- **Tribal Cultural Resources.** Cumulative impacts related to tribal cultural resources are based on the local Native American tribes' culturally significant areas, which include, but are not limited to, cultural landscapes and regions to specific heritage sites and other tribal cultural places.
- **Utilities and Service Systems.** Water supply and distribution systems and wastewater treatment and conveyance system cumulative impacts would be contiguous with the Moulton Niguel Water District service area. Storm drainage systems would be contiguous with the Aliso Creek Watershed. Solid waste collection and disposal services would be contiguous with the OC Waste & Recycling service area. Natural gas and electricity services would be contiguous with the Southern California Gas Company and Southern California Edison service areas.
- **Wildfire.** Contiguous with the service area boundaries of the Orange County Fire Authority, CAL FIRE, and the US Forest Service.

### 4.5 REFERENCES

- California Air Resources Board (CARB). 2008, October. Climate Change Proposed Scoping Plan: A Framework for Change.
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- Linscott, Law & Greenspan (LLG). 2021, May 12. Traffic Impact Analysis, Laguna Niguel City Center Project, Laguna Niguel, California.
- Orange County. 2008, April. South Court Facility Final Environmental Impact Report, State Clearinghouse Number 2005011094, EIR 603 (County File # IP04-350). Prepared by Jones & Stokes.

## 4. Environmental Setting

Orange County Transportation Authority (OCTA). 2019, November. 2019 Orange County Congestion Management Program. <https://www.octa.net/Projects-and-Programs/Plans-and-Studies/Congestion-Management-Program/Overview/>.

Southern California Association of Governments (SCAG). 2016 April 7. Regional Transportation Plan/Sustainable Communities Strategy. <http://scagrtpscs.net/Documents/2016/final/f2016RTPSCS.pdf>.

## 5. Environmental Analysis

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Chapter 5 examines the environmental setting of the proposed project, analyzes its effects and the significance of its impacts, and recommends mitigation measures to reduce or avoid impacts. This chapter has a separate section for each environmental issue area that was determined to need further study. This scope was determined in the notice of preparation (NOP), which was published November 1, 2019 (see Appendix A), and through public and agency comments received during the NOP comment period (November 4, 2019, to December 4, 2019) and the scoping meeting on November 13, 2019 (see Appendix B). Environmental issues and their corresponding sections are:

- 5.1 Aesthetics
- 5.2 Air Quality
- 5.3 Biological Resources
- 5.4 Cultural Resources
- 5.5 Energy
- 5.6 Geology and Soils
- 5.7 Greenhouse Gas Emissions
- 5.8 Hazards and Hazardous Materials
- 5.9 Hydrology and Water Quality
- 5.10 Land Use and Planning
- 5.11 Noise
- 5.12 Population and Housing
- 5.12 Public Services
- 5.14 Recreation
- 5.15 Transportation
- 5.16 Tribal Cultural Resources
- 5.17 Utilities and Service Systems
- 5.18 Wildfire

Sections 5.1 through 5.18 provide detailed discussions of the environmental setting, impacts associated with the proposed project, and mitigation measures designed to reduce significant impacts where required and when feasible. The residual impacts following the implementation of any mitigation measure are also discussed.

### **Organization of Environmental Analysis**

To assist the reader with comparing information between environmental issues, each section is organized under nine major headings:

## 5. Environmental Analysis

- Environmental Setting
- Thresholds of Significance
- Plans, Programs, and Policies
- Environmental Impacts
- Cumulative Impacts
- Level of Significance Before Mitigation
- Mitigation Measures
- Level of Significance After Mitigation
- References

In addition, Chapter 1, *Executive Summary*, has a table that summarizes all impacts by environmental issue.

### Terminology Used in This Draft EIR

The level of significance is identified for each impact in this DEIR. Although the criteria for determining significance are different for each topic area, the environmental analysis applies a uniform classification of the impacts based on definitions consistent with CEQA and the CEQA Guidelines.

- **No impact.** The project would not change the environment.
- **Less than significant.** The project would not cause any substantial, adverse change in the environment.
- **Less than significant with mitigation incorporated.** The EIR includes mitigation measures that avoid substantial adverse impacts on the environment.
- **Significant and unavoidable.** The project would cause a substantial adverse effect on the environment, and no feasible mitigation measures are available to reduce the impact to a less than significant level.



## 5. Environmental Analysis

### 5.1 AESTHETICS

This section of the Draft Environmental Impact Report (DEIR) describes the existing landform and aesthetic character of the project site and surrounding area and describes views of the project site from surrounding vantage points. It also analyzes the potential aesthetic and visual impacts resulting from implementation of the Laguna Niguel City Center Mixed Use Project (proposed project). The information in this section is based on field reconnaissance, review of aerial photographs, and conceptual renderings prepared for the proposed project.

#### 5.1.1 Environmental Setting

##### 5.1.1.1 REGULATORY BACKGROUND

Local laws, regulations, plans, or guidelines that are potentially applicable to the proposed project are summarized below.

#### State

##### *California Building Code: Building Energy Efficiency Standards*

Energy conservation standards for new residential and nonresidential buildings were adopted by the California Energy Resources Conservation and Development Commission (now the California Energy Commission) in June 1977 and most recently revised in 2018 (Title 24, Part 6, of the California Code of Regulations). The newly revised standards took effect on January 1, 2020. Title 24 requires the design of building shells and building components to conserve energy. It also requires outdoor lighting controls to reduce energy usage; in effect, this reduces outdoor lighting.

#### Local

##### *Laguna Niguel General Plan Land Use Element*

The following goals and policies of the Laguna Niguel General Plan Land Use Element related to aesthetics and visual character are applicable to the proposed project.

**Goal 4:** Urban design that provides community gathering areas and other pedestrian spaces.

- **Policy 4.1.** Emphasize attractive and functional urban design in new development.
- **Policy 4.3.** Require, where feasible, the development of open spaces and places for people to gather within commercial and office complexes.
- **Policy 4.4** Provide, where feasible, pedestrian walkways and linkages between residential, commercial, office, open space/recreation facilities and other public places.

## 5. Environmental Analysis

### AESTHETICS

#### *Laguna Niguel Zoning Code*

The following provisions from the Laguna Niguel Zoning Code help minimize aesthetic and light and glare impacts associated with new development projects and are relevant to the proposed project.

- **Sections 9-1-35.15 and 9-1-45.14 (Outdoor Lighting).** These sections provide residential and nonresidential standards for outdoor lighting to allow adequate lighting for public safety while minimizing the adverse effects of excessive lighting on neighbors and the community. The allowed location, height, intensity, and design of outdoor lighting are further detailed in this section of the code.
- **Section 9-1-42 (Permitted Uses).** This section details the uses permitted within the Mixed Use – Town Center (MU-TC) District.
- **Section 9-1-43 (Nonresidential Development and Mixed Use Standards).** This section details development standards of properties within the MU-TC District, such as minimum setbacks, maximum structure heights and minimum lot sizes. For the proposed project, the MU-TC District has a maximum building height of 50 feet, minimum perimeter setback of 20 feet from street right-of-way and a setback to residential districts, and PI, PR, and OS districts of a minimum of 15 feet at any point and a minimum average of 20 feet.
- **Section 9-1-45.3 (Landscaping).** A landscape plan shall be prepared and implemented for all development projects. Landscaping shall consist of trees, shrubs, vines, groundcover or a combination thereof. This section includes landscape design guidelines, boundary landscaping requirements, and interior landscaping requirements.
- **Subarticle 7 (Signs).** This subarticle details the standard regulating signage within the City of Laguna Niguel (City). Provisions are related to sign placement, design, illumination, and size.
- **Subarticle 9 (Community Design Guidelines).** The community design guidelines provide architectural, landscape, and site planning criteria for the design and review of proposed commercial, office, industrial, attached residential, and other development within the City. Projects are subject to design review by the City's Community Development Director and Planning Commission.

The proposed project requires a Site Development Permit which would include a detailed review for compliance with the aforementioned development and design standards.

## 5. Environmental Analysis

### AESTHETICS

#### 5.1.1.2 EXISTING CONDITIONS

##### Visual Character and Land Use

The project site is in a suburban setting, approximately in the center of Laguna Niguel. The 25-acre site encompasses the closed South County Justice Center building, a county maintenance yard, the Orange County Fire Authority (OCFA) Fire Station No. 5, the Orange County Library (Laguna Niguel Branch), and their associated surface parking lots (see Figure 5.1-1, *Site Photos*). The closed courthouse is approximately 33,300 square feet and 30 feet tall. The OCFA fire station is about 8,000 square feet and 25 feet tall at its highest point. The county maintenance yard consists of two buildings, approximately 6,288 square feet combined and about 15 to 18 feet tall. The Orange County Library is about 13,950 square feet and approximately 15 to 20 feet in height. The structures are along the perimeter of the project site near adjacent roadways (i.e., Pacific Island Drive, Alicia Parkway, and Crown Valley Parkway), and the large middle and western portions of the site are vacant and undeveloped (see Figure 3-3, *Aerial Photograph*).

The site is at the bottom of a steep hillside that borders the project's western boundary. As shown in Figure 4-1, *Site Topography*, the terrain is varied throughout the project site. There is a net elevation change of 50 feet from the low point of approximately 320 feet above mean sea level (amsl) in the southern corner (site entrance at Crown Valley Parkway) to 370 feet amsl at the top of a small knoll in the northern corner of the site (near Pacific Island Drive/Alicia Parkway intersection). However, there are no significant visual resources or landforms located on the project site. Existing site landscaping includes ornamental trees along the perimeter of the project site and scattered throughout the surface parking area, but these are not considered scenic resources. The trees are typical of landscaped ornamental trees in urban areas of southern California. Sources of light on-site include building (exterior and interior), security, and parking area lighting for the county maintenance yard and library (the South County Justice Center closed in 2008).

The site shares a boundary with City Hall at the corner of Alicia Parkway and Crown Valley Parkway. This parcel is 'not a part' of the project as shown in Figure 3-4, *Proposed Site Plan*. The City Hall has Mission-style architecture with contemporary elements. The building generally ranges from 35 feet to 48 feet in height and includes a 65-foot clock tower.

As shown on Figure 3-3, *Aerial Photograph*, surrounding residential development includes a mix of townhomes and apartments. The Niguel Summit Condominiums are at the top of the steep slope along the project site's western boundary; Pointe Niguel Apartment Homes are located across Pacific Island Drive; and El Niguel Townhomes and Charter Terrace townhome communities are to the west and southwest of the site. The Niguel Summit Apartments pad elevations are approximately 420 feet amsl and the El Niguel residences at approximately 400 feet amsl. These residences are multi-story and the pad elevations sit above the highest point of the existing City Hall building. City Hall has a building pad at approximately 325 feet and is 35 feet to 65 feet high for a total height of 360 feet to 390 feet (relative to the 400 feet+ elevations of the surrounding residential uses).

Directly across from Pacific Island Drive, Alicia Parkway, and Crown Valley Parkway are the Pacific Island Shopping Center, Town Center, and Crown Valley Mall, respectively. These shopping centers are anchored by supermarkets and drugstores, including Albertsons, Smart and Final, Rite-Aid, Walgreens, and CVS Pharmacy,

## 5. Environmental Analysis

### AESTHETICS

and contain other smaller neighborhood-serving businesses, such as banks, coffee shops, fast-food restaurants, and gas stations.

#### 5.1.2 Thresholds of Significance

The City's CEQA Manual provides local guidelines, procedures, requirements, and thresholds of significance for the environmental review process within the City consistent with the CEQA Statutes (Public Resources Code Section 21000 et seq.) and State CEQA Guidelines (14 CCR, Division 6, Chapter 3, Section 15000 et seq.) (Laguna Niguel 2021).

The Laguna Niguel General Plan has mapped Landscape Corridors within the City on Figure OS-3, included in the City's CEQA Manual as Figure 2. Landscape Corridors have been "designated for special treatment to provide a pleasant driving environment as well as community enhancement." Projects that fall within a Landscape Corridor shall be analyzed for impacts to a landscape corridor. No state scenic highways are located within the City.

A project may require a shade and shadow analysis if the project has the potential to cast new shadows on existing neighboring properties. This condition could occur as a result of topographic changes to a site or the location and height of new structures. Appendix G does not directly establish a threshold of significance for potential shading/shadowing impacts; therefore, the following threshold is hereby established:

According to the City's CEQA Manual, a project would have a significant impact on the environment if it would:

*Cast shade on shadow-sensitive uses by project-related structures for more than three hours between the hours of 9:00 a.m. and 3:00 p.m. Pacific Standard Time (between late October and early April), or for more than four hours between the hours of 9:00 a.m. and 5:00 p.m. Pacific Daylight Time (between early April and late October). Shadow-sensitive uses shall include residential structures and associated outdoor living space, schools, public parks, and other unique situations determined by the Community Development Director.*

According to Appendix G of the CEQA Guidelines and the City's CEQA Manual, "except as provided in Public Resources Code Section 21099," a project would normally have a significant effect on the environment if the project would:

- AE-1 Have a substantial adverse effect on a scenic vista.
- AE-2 Substantially damage scenic resources, including, but not limited to, trees, rock outcroppings, and historic buildings within a state scenic highway.
- AE-3 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, conflict with applicable zoning and other regulations governing scenic quality.

Figure 5.1-1 - Site Photographs  
5. Environmental Analysis



Photo 1. View of grasslands and slightly undulating terrain onsite looking west towards the El Niguel Condominiums, separated by off-site manufactured slopes in background.



Photo 2. Overview of land covers including non-native grassland, landscaped and ornamental trees, and developed/disturbed areas. The existing courthouse is hidden behind the ornamental trees.



Photo 3. View of the closed South County Justice Center.



Photo 4. View of disturbed dirt road, non-native grassland, and ornamental trees from the County maintenance yard. The City Hall building and clock tower can be seen in the background.



Photo 5. View of ornamental landscaping, grassland and the County Library building in the background.



Photo 6. View of the County maintenance yard in the northern portion of the project site. The OCFA fire station can be seen in the background.

## 5. Environmental Analysis

### AESTHETICS

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## 5. Environmental Analysis

### AESTHETICS

- AE-4 Create a new source of substantial light or glare which would adversely affect day or nighttime views in the area.

### 5.1.3 Plans, Programs, and Policies

- PPP AES-1 The proposed project will be designed and constructed in accordance with the applicable provisions of the Laguna Niguel Municipal Code—Sections 9-1-35.15 and 9-1-45.14 (Outdoor Lighting), Section 9-1-42 (Permitted Uses), Section 9-1-43 (Nonresidential Development Standards), Section 9-1-45.3 (Landscaping), Subarticle 7 (Signs), and Subarticle 9 (Community Design Guidelines).
- PPP AES-2 The proposed project will be required to comply with California’s Building Energy Efficiency Standards for Residential and Nonresidential Buildings (Title 24, Part 6, of the California Code of Regulations), which outlines mandatory provisions for lighting control devices and luminaires.

### 5.1.4 Environmental Impacts

#### 5.1.4.1 METHODOLOGY

##### *Aesthetic/Visual Character Analysis*

The assessment of aesthetic impacts is subjective by nature. Aesthetics generally refers to the identification of visual resources and the quality of what can be seen, as well as an overall visual perception of the environment. This analysis attempts to identify and objectively examine factors that contribute to the perception of aesthetic impacts. Potential aesthetic impacts can be evaluated by considering proposed building setbacks, scale, massing, typical construction materials, and landscaping features of the proposed project. The Laguna Niguel Zoning Code includes a variety of provisions related to development standards for residential and nonresidential development (e.g., building height limits, setbacks, landscaping) and community design guidelines (see Section 5.1.1.1, *Regulatory Background*). As described above in 5.1.3, *Thresholds of Significance*, the City’s CEQA Manual provides local guidelines, procedures, requirements, and thresholds of significance for the environmental review process within the City. The City’s CEQA Manual provides guidelines for potential aesthetic impacts along Landscape Corridors and provides thresholds for shade and shadow analysis. Conceptual renderings and perspectives of the proposed project are included to help examine the aesthetic compatibility of the conceptual plans with the surrounding area and potential impacts to visual resources and viewers in the project area. Surrounding land uses consist of residential uses (i.e., Niguel Summit Apartments, Charter Terrace Townhomes, and El Niguel community) to the north and west; commercial uses (i.e., Pacific Island shopping center, Town Center, and Crown Valley Mall) to the north, east, and south; and civic uses (i.e., City Hall) to the south (see Figure 3-3, *Aerial Photograph*). Intermittent views by passing motorists along Crown Valley Parkway, Alicia Parkway, and Pacific Island Drive are also considered.

## 5. Environmental Analysis

### AESTHETICS

#### *Light and Glare Analysis*

Nighttime illumination and glare analysis addresses the effects of a project's exterior lighting on adjoining uses and areas. Light and glare impacts are determined by comparing the existing light sources with the proposed lighting plan or policies. If the project has the potential to generate spill light on adjacent sensitive receptors or generate glare for receptors in the vicinity of the site, mitigation measures can be provided to reduce potential impacts, as necessary.

#### **5.1.4.2 IMPACT ANALYSIS**

The following impact analysis addresses thresholds of significance for which the Notice of Preparation disclosed potentially significant impacts (see Appendix A). The applicable thresholds are identified in brackets after the impact statement.

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#### **Impact 5.1-1: The proposed project would not have an adverse effect on a scenic vista. [Thresholds AE-1]**

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Scenic vistas are panoramic views of features such as mountains, forests, the ocean, or urban skylines. The project site is in an urban area of Laguna Niguel and surrounded mostly by commercial and residential development. The proposed project would include one-, two-, three and four-story buildings. No views of the Pacific Ocean exist from the project site because of obstructions by trees, buildings, rooflines, and existing topography. No mountains, forests, or urban skylines can be seen from the project area either. There are public vantage points west of the project site along Pacific Island Drive with long-distance views, including mountains to the east. However, the proposed development would not obstruct these views.

As described in the Laguna Niguel CEQA Manual, views from private properties are not protected under CEQA or by local ordinance and therefore, not part of this aesthetics analysis. The project site does not constitute a scenic vista and the proposed project would not block public views of a scenic vista. It should be noted that along the western edge of the project site, the pad elevations of the existing adjoining residents would remain above the highest points of the proposed project. The pad elevations of the townhouses to the west of the project site on top of the adjoining slope are approximately 420 feet above mean sea level. All structures, including light standards and parapets would not exceed 50 feet in height<sup>1</sup>. The residential structure (Building 15) in the northwest corner of the site near Pacific Island Drive has building elements at the highest elevation above mean sea level at approximately 411 msl, which remains below the pad elevations of the adjoining residential uses at 420 msl. Similarly in the southern portion of the site the residences off Via Corona have pad elevations approximately 380 feet above msl and the tallest point of Buildings 1 and 2 measure approximately 368 feet above msl. Therefore, while private views are not protected, development of the project would not extend above the pad elevations of the adjoining residences.

***Level of Significance Before Mitigation:*** No Impact.

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<sup>1</sup> The parking garage pad would be 350 feet above mean sea level



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**Impact 5.1-2: The proposed project would not substantially damage scenic resources, including, but not limited to, trees, rock outcroppings, and historic buildings within a state scenic highway. [Thresholds AE-2]**

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The project site is partially improved with the existing South County Justice Center, library, and county maintenance yard. The remaining area is undeveloped and vacant. There are no rock outcroppings or historic buildings on-site. Ornamental trees occur along the perimeter of the project site and scattered throughout the surface parking area, but these trees are not considered scenic resources. The trees are typical of landscaped ornamental trees in urban areas of southern California. Therefore, no important scenic resources occur on-site.

No built historical resources are recorded at the project site based on a literature and records review conducted for the project. The cultural resources literature and records review is discussed in Section 5.4, *Cultural Resources*. Further, the Open Space, Parks, and Conservation Element of the Laguna Niguel General Plan states that the City does not have any historical resources within its boundaries.

The project site is not within a state scenic highway, nor is the project site visible from any officially designated scenic highways. State Routes 1 and 73 are eligible state scenic highways; however, the project site is not visible from these roadways (Caltrans 2011). Thus, the project would not damage scenic resources within a state scenic highway. Crown Valley Parkway is designated a Landscape Corridor in the City's General Plan Figure OS-3. The project would provide a landscaped buffer/setback between the new buildings/development and Crown Valley Parkway, a designated Landscape Corridor. The landscaped buffer would be designed according to the required landscaping standards and would retain a landscape character similar to that of the Crown Valley Parkway Landscape Corridor. The proposed landscape design would result in no impacts to the Landscape Corridor designation.

*Level of Significance Before Mitigation:* No Impact.

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**Impact 5.1-3: The project would not conflict with applicable zoning and other regulations governing scenic quality. [Threshold AE-3]**

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The project site is at the bottom of a steep hillside that borders the project's western boundary. The ground surface elevation across the site varies from an elevation of about 305 to 370 feet. The current visual setting of the site is partially developed with the abandoned courthouse, county maintenance yard, County library, and associated parking areas. The remainder of the site is predominantly vacant and undeveloped, with nonnative grasslands and ornamental trees (see Figure 5.1-1, *Site Photos*). The proposed project would develop up to 174,581 square feet of nonresidential uses and up to 275 multifamily dwelling units. Prior to development of the proposed structures, construction activities would involve demolishing the South County Justice Center (abandoned courthouse), county maintenance yard, County library, and surface parking areas. Therefore, the project would alter the existing visual character of the project site. There are no significant visual resources on or near the project site.

The proposed project includes grading and modifications to the existing landform. The area east of OCFA Fire Station No. 5 and generally bound by Alicia Parkway and Pacific Island Drive is the area with the deepest

## 5. Environmental Analysis

### AESTHETICS

cuts, which would lower finished elevations up to approximately 23 feet. The center of the site also has areas of cut, which would lower elevations approximately 10 to 12 feet. Areas of fill are scattered throughout the site and range up to 9 feet. The proposed grading would not substantially increase the elevation of the site in a manner that would change the visual character of the site.

As shown in Figure 3-4, *Proposed Site Plan*, various elements of the project—Retail Village Core, Creative Office Space, etc.—would form a collection of community uses, essentially creating a downtown environment for residents and visitors of Laguna Niguel. The mixed-use project is envisioned to feature retail shops, restaurants, office, integrated residential, community-oriented event space and extensive walkable open space plazas, gardens and squares.

Proposed buildings would range from one to four stories and would not exceed 50 feet in height, which is consistent with the height limit in the proposed Mixed Use Zone. This height limit is compatible with surrounding land uses and topography. The height of the proposed structures will not project above the pad elevations of the adjoining residential uses. Furthermore, the proposed building heights are consistent with the height of City Hall, which ranges from 35 feet to 65 feet, making the proposed project compatible with its surroundings.

The Town Green would be seen upon site entry. This area would include a single-story retail building built around the central Town Green open space plaza area and linked by landscaped paseos featuring shade trees. The buildings are proposed to have patios that open onto the Town Green. The Town Green would include seating areas, outdoor performance/event spaces, and other programmable spaces. The buildings would be architecturally distinctive and designed with a natural material such as wood, stone, and plaster siding; crafted storefronts featuring wood and steel windows with fabric awnings and distinctive handcrafted signage; and gabled roofs with standing-seam metal and cedar-shake roofs.

Residential 1 would consist of a three- and four-story residential building (Lot 17) at the southwest corner of Alicia Parkway and Pacific Island Drive between the Laguna Niguel City Hall and the OCFA fire station No. 5. Similar to other buildings on-site, building design and materials would consist mainly of white smooth plaster, natural wood, stone, and steel. Building height, including architectural features and appurtenances, would not exceed 50 feet in height. Resident amenities would include a leasing office, clubhouse, state-of-the-art fitness center, outdoor dining, resort pool and spa, cabanas, and pet spa.

Residential 2 would consist of two- and three-story buildings surrounding surface parking, some with private rooftop decks (see also Figure 3-4). Building amenities include a private lounge adjacent to and integrated with a resort-style pool and spa. Residents in this building would also have access to amenities in Residential 1. Some of the ground-floor units facing the south and east side of the building would have direct entry at the street level through private, gated patios. The buildings would have traditional residential design that complements the commercial buildings and would include a mixture of materials, including plaster, metal, stone, and tile.

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### AESTHETICS

#### Project Visual Simulations

Visual simulations, included as Figures 5.1-2 through 5.1-10, were prepared from eight viewing points along the project site's perimeter to illustrate how what the project is anticipated to look like at completion compared to existing conditions. Figure 5.1-2 shows the proposed project site plan with view locations and view directions. Figure 5.1-3, *Perimeter View 1 – Existing and Proposed Views from Crown Valley Parkway Looking Northeast Towards the Project Site Driveway*, reflects views of the project site that would be seen by motorists and pedestrians along Crown Valley Parkway. The pre-development view shows the existing vegetation including bushes, shrubs, and trees and the existing topography. The proposed view shows the entry driveway off Crown Valley Parkway and the Retail Village Core buildings. The topography remains similar to existing conditions.

Figure 5.1-4, *Perimeter View 2 – Existing and Proposed Views from Crown Valley Parkway Looking East Towards the Project Site*, shows views of the project site that would be experienced by motorists and/or pedestrians along Crown Valley Parkway. The existing view is characterized by roadways, traffic lights, landscaping including grass, shrubs and trees. The existing Orange County Library is barely visible behind the ornamental landscaping. The post-development view from Perimeter View 2 shows new landscaping with a larger lawn along Crown Valley Parkway. A parking lot and proposed new retail building are setback from Crown Valley Parkway and visible from this location. The topography at this location remains similar to the existing conditions.

Figure 5.1-5, *Perimeter View 3 – Existing and Proposed Views from Crown Valley Parkway and Alicia Parkway Looking East Towards the Project Site*, reflects views of the project site that would be seen by motorists and pedestrians along Crown Valley Parkway and Alicia Parkway. The pre-development view is characterized by the roadways in the foreground and the existing City Hall building and landscaping in the background. The post-development view would be slightly altered. The proposed Residential 1 building would be visible to the north from this viewpoint.

Figure 5.1-6, *Perimeter View 4 – Existing and Proposed Views from Alicia Parkway and Pacific Island Drive Looking Southwest Towards the Project Site*, reflects views of the project site that would be seen by motorists and pedestrians along Alicia Parkway and Pacific Island Drive. The pre-development view is characterized by the roadways in the foreground and the project site with vegetation and trees along the frontage. The existing buildings are partially visible through the trees. The post-development view would consist of the proposed Residential 1 building. The proposed Residential 1 Building's massing and height that is would be greater than existing conditions.

Figure 5.1-7, *Perimeter View 5 – Existing and Proposed Views from Alicia Parkway and Pacific Island Drive Looking West Towards the Project Site*, reflects views of the project site that would be seen by motorists and/or pedestrians. The pre-development view is characterized by the roadways and streetlights in the foreground, a slope at the northern boundary of the project site, the Pacific Island commercial center, the OCFA Fire Station, and tall trees in the middleground. The background consists of a natural hillside with residences along the ridgeline. The proposed Residential 1 Building would be the dominant feature in the post-development view from this location. Due to the building's massing and height, the hillside in the background would be partially obstructed.

Figure 5.1-8, *Perimeter View 6 – Existing and Proposed Views from Pacific Island Drive Looking South*, reflects view of the project site that would be seen by motorists and commercial center patrons along Pacific Island Drive. The

## 5. Environmental Analysis

### AESTHETICS

pre-development view is characterized by roadways and sidewalks in the foreground, a slope along the northern portion of the project site, the OCFA fire station, trees and hills in the background. The post-development foreground views would remain the same; however, the middleground and background views would be altered and dominated by the proposed Residential 1 Building and the roofline of the new public library.

Figure 5.1-9, *Perimeter View 7 – Existing and Proposed Views from Pacific Island Drive Looking Southwest*, reflects views of the project site that would be seen by motorists and pedestrians along Pacific Island Drive. The pre-development view is characterized by roadways, sidewalks, and streetlights in the foreground, the OCFA Fire Station, County Maintenance yard, and tall trees in the middleground, and vegetated hillsides partially developed with residences in the background. The post-development foreground views would remain the same. The OCFA Fire Station would remain visible and the Residential 2 Building would be the dominant feature partially obstructing views of the hillsides. The ridgelines would still be visible.

Figure 5.1-10, *Perimeter View 8 – Existing and Proposed Views from Pacific Island Drive and Highland Drive Looking Southeast*, reflects view of the project site that would be seen by residents, pedestrians, and motorists. The Pre-development view is characterized by roadways, streetlights, and tall trees. The County Maintenance Yard and OCFA Fire Station are visible in the middleground. Partially developed hillsides are slightly visible in the background between the tall trees. The post-development view of the project site would no longer include the tall trees or County Maintenance Yard and the dominant feature would be the Residential 2 Building at the northeast corner of the project site.

### Overall Consistency with Applicable Policies Governing Aesthetics

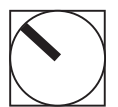
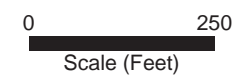
As detailed in Section 5.1.1.1, *Regulatory Background*, Goal 4 and accompanying policies in the General Plan Land Use Element relate to visual character and aesthetics that apply to the proposed project.

Goal 4 calls for “urban design that provides for community gathering areas and other pedestrian spaces.” Consistent with Goal 4 and its policies, the proposed project would help transform the project area into a vibrant community center and place of gathering. The proposed project design would be attractive and functional to encourage people to use the common open space amenities, pedestrian-oriented courtyards, and promenade and visit the shops, kiosks, and restaurants. The architectural design, scale, and massing of the proposed project is compatible with the adjacent City Hall and the surrounding area. Heavily landscaped perimeters along arterial roadways further elevate the project’s visual quality and character. Overall, the site planning, design, and orientation of the proposed development on-site would help to establish a dynamic town center for Laguna Niguel.

Figure 5.1-2 - Perimeter Viewpoint Location  
5. Environmental Analysis



- |  |  |   |
|--|--|---|
| <span style="display:inline-block; width:15px; height:10px; background-color:yellow; border:1px solid black;"></span> Retail/Restaurant/Specialty Grocer/Fitness/Personal Services | <span style="display:inline-block; width:15px; height:10px; background-color:lightblue; border:1px solid black;"></span> Residential | <span style="display:inline-block; width:15px; height:10px; background-color:orange; border:1px solid black;"></span> Parking Structure |
| <span style="display:inline-block; width:15px; height:10px; background-color:lightblue; border:1px solid black;"></span> Office Building   | <span style="display:inline-block; width:15px; height:10px; background-color:lightgreen; border:1px solid black;"></span> Library    | <span style="border-bottom: 2px dashed red; width: 20px; display: inline-block;"></span> Project Boundary                               |



Source: OJB

## 5. Environmental Analysis

### AESTHETICS

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Figure 5.1-3 - Perimeter View 1 – Existing and Proposed Views from Crown Valley Parkway Looking Northeast Towards the Project Site Driveway

**5. Environmental Analysis**



Perimeter View 1 - Existing



Perimeter View 1 - Proposed

Source: OBJ, 2022

## 5. Environmental Analysis

### AESTHETICS

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Figure 5.1-4 - Perimeter View 2 – Existing and Proposed Views from Crown Valley Parkway Looking East Towards the Project Site

**5. Environmental Analysis**



Perimeter View 2 - Existing



Perimeter View 2 - Proposed

Source: OBJ, 2022

## 5. Environmental Analysis

### AESTHETICS

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Figure 5.1-5 - Perimeter View 3 – Existing and Proposed Views from Crown Valley Parkway and Alicia Parkway Looking East Towards the Project Site

**5. Environmental Analysis**



Perimeter View 3 - Existing



Perimeter View 3 - Proposed

Source: OBJ, 2022

## 5. Environmental Analysis

### AESTHETICS

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Figure 5.1-6 - Perimeter View 4 – Existing and Proposed Views from Alicia Parkway and Pacific Island Drive Looking Southwest Towards the Project Site

**5. Environmental Analysis**



Perimeter View 4 - Existing



Perimeter View 4 - Proposed

Source: OBJ, 2022

## 5. Environmental Analysis

### AESTHETICS

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Figure 5.1-7 - Perimeter View 5 – Existing and Proposed Views from Alicia Parkway and Pacific Island Drive Looking West Towards the Project Site

**5. Environmental Analysis**



Perimeter View 5 - Existing



Perimeter View 5 - Proposed

Source: OBJ, 2022

## 5. Environmental Analysis

### AESTHETICS

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Figure 5.1-8 - Perimeter View 6 – Existing and Proposed Views from Pacific Island Drive Looking South Towards the Project Site Driveway

**5. Environmental Analysis**



Perimeter View 6 - Existing



Perimeter View 6 - Proposed

Source: OBJ, 2022

## 5. Environmental Analysis

### AESTHETICS

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Figure 5.1-9 - Perimeter View 7 – Existing and Proposed Views from Pacific Island Drive Looking Southwest Towards the Project Site

**5. Environmental Analysis**



Perimeter View 7 - Existing



Perimeter View 7 - Proposed

Source: OBJ, 2022

## 5. Environmental Analysis

### AESTHETICS

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Figure 5.1-10 - Perimeter View 8 – Existing and Proposed Views from Pacific Island Drive and Higlands Drive Looking Southeast Towards the Project Site

**5. Environmental Analysis**



Perimeter View 8 - Existing



Perimeter View 8 - Proposed

Source: OBJ, 2022

## 5. Environmental Analysis

### AESTHETICS

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## 5. Environmental Analysis AESTHETICS

As described in Chapter 3, *Project Description*, the proposed project includes a zone change from “Community Commercial” to “Mixed-Use Town Center” (MU-TC) district. A zoning code amendment is proposed to establish the mix of permissible land uses and development standards for the new MU-TC district. For the proposed project, the MU-TC District has a maximum building height of 50 feet, minimum perimeter setback of 20 feet from street right-of-way and a setback to residential districts, and PI, PR, and OS districts of a minimum of 15 feet at any point and a minimum average of 20 feet. A site development permit (SDP 19-03) is also proposed because the project includes over 5,000 cubic yards of earth work and to allow alternative development standards for a reduction in the minimum depth of boundary landscaping at the base of an ascending slope for a property line segment along proposed Lot 15. The City’s Community Development Department and Planning Commission would review the project’s design features to ensure they complement and adhere to the City’s community design guidelines in Subarticle 9 (Community Design Guidelines) of the Laguna Niguel Zoning Code.

Proposed buildings would range from one to four stories and would not exceed 50 feet in height, which is consistent with the height limit in the proposed Mixed-Use Zone. This height limit is compatible with surrounding land uses and topography. The height of the proposed structures will not project above the pad elevations of the adjoining residential uses. Furthermore, the proposed building heights are consistent with the height of City Hall, which generally ranges from 35 feet up to 65 feet, making the proposed project compatible with its surroundings.

Overall, the site’s existing character consisting of disjointed and vacant civic structures along the project perimeter, underutilized parking lots, and undeveloped land would be enhanced through development of the proposed project, and the visual character and quality of the site and its surroundings would not be adversely impacted and the project would not conflict with applicable zoning standards and other regulations governing scenic quality.

***Level of Significance Before Mitigation:*** With the implementation of PPP AES-1, Impact 5.1-4 would be less than significant.

---

**Impact 5.1-4: The project would not create a new source of substantial light or glare which would adversely affect day or nighttime views in the area. [Threshold AE-4]**

---

Sources of existing light and glare on-site include building (exterior and interior), security, and parking area lighting for the county maintenance yard and library. The South County Justice Center closed in 2008 and there are no operational exterior or interior lights associated with the building. Off-site sources of existing light and glare in the project area include building, security, and parking area lighting for the OCFA fire station and City Hall to the north and south, respectively, and lighting for the shopping centers across Pacific Island Drive, Alicia Parkway, and Crown Valley Parkway. Streetlights and vehicular traffic along Crown Valley Parkway, Alicia Parkway, and Pacific Island Drive are also sources of existing light and glare in the project area. These existing light and glare sources are typical of a suburban neighborhood and do not create significant nighttime lighting issues.

## 5. Environmental Analysis

### AESTHETICS

#### Light

Since the project site is predominantly vacant and undeveloped, the proposed project would alter and intensify lighting on the project site by introducing new lighting sources associated with building lighting (interior and exterior), security lighting, and parking area lights (see Figure 5.1-11, *Site Lighting Plan*). In addition to necessary lighting for safety and security, the proposed project would introduce aesthetic lighting, such as illumination in landscaped areas, architectural and façade detailing, and signage/entryway lighting.

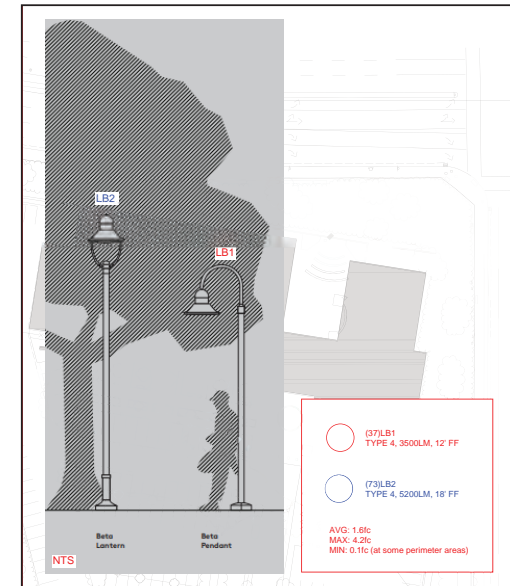
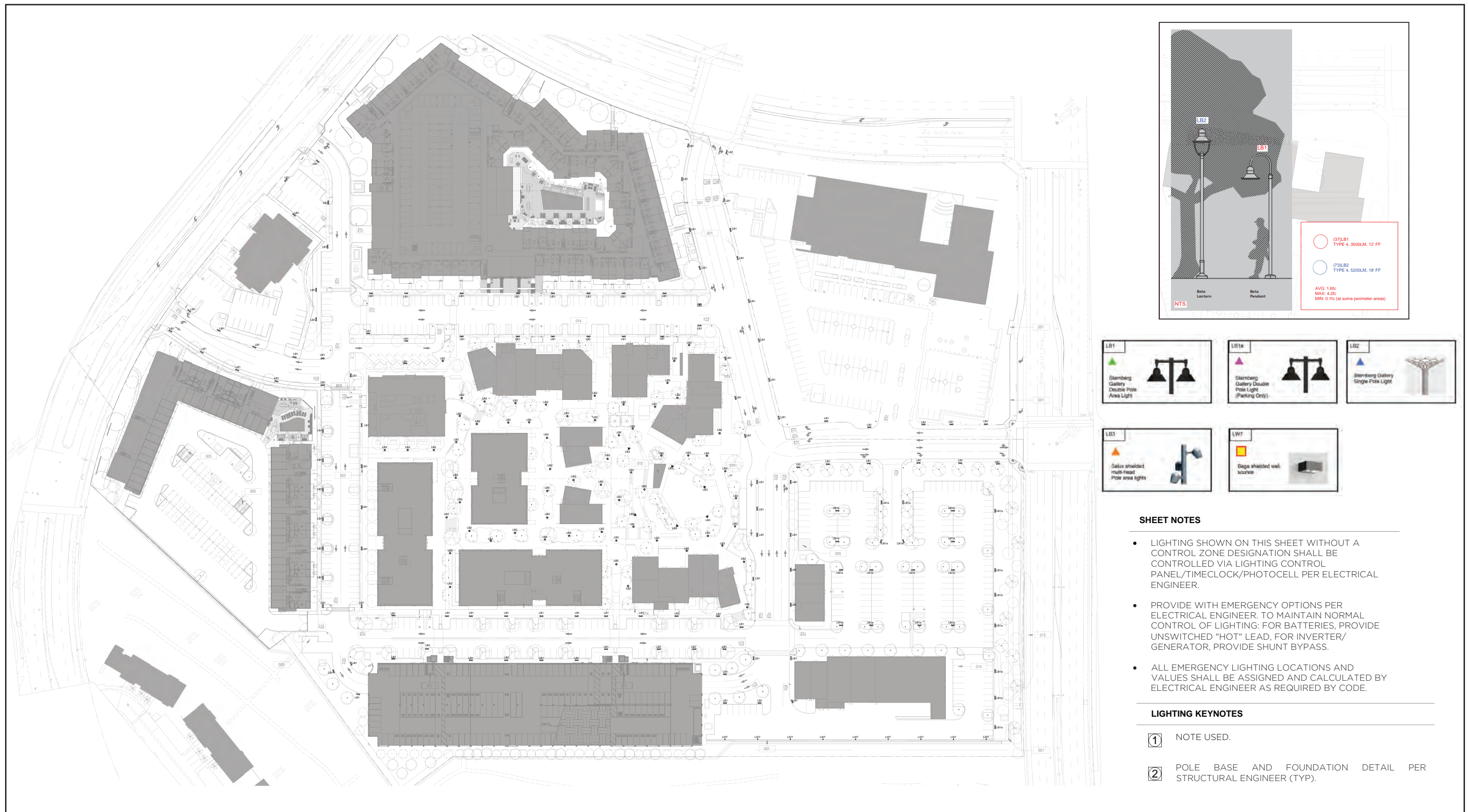
Additionally, the proposed project anticipates regularly hosting community events, including holiday festivals, movie screenings, and farmer markets, that may require unique lighting. For example, movie screenings at night would require a projector and large screen, and other community events at night may require stage and production lighting. However, per Section 9-1-45.13 of the Laguna Niguel Zoning Code, the applicant would be required to obtain Temporary Use Permits prior to special outdoor events, which would detail, in addition to other issues, lighting requirements to ensure the events do not negatively impact surrounding uses.

Despite new sources of lighting, development of the proposed project is not expected to generate a substantial increase in light that would result in a significant impact. A *Photometric Study* of the lighting plan is provided as Figure 5.1-6b. Residential and nonresidential development would be required to comply with outdoor lighting standards in Sections 9-1-35.15 and 9-1-45.14 of the Laguna Niguel Zoning Code, respectively. Section 9-1-35.15 requires residential parking lots to have a lighting intensity of at least 1.0 foot-candle at all points but not to exceed an average of 3.0 foot-candles over the entire parking lot. The parking lot structure would include lighting on the roof that would meet code standards with shielded lighting fixtures oriented down and away from adjacent residences. The lighting on the roof of the parking structure adjacent to residential uses would be obstructed by topography (i.e., the parking structure rooftop elevation and security lighting would be at a lower elevation than the adjacent residences and be directed downward). The parking structure rooftop would be flat and would not result in vehicle headlights being oriented upward. Lighting must only be installed adjacent to residential buildings, walkways, driveways, activity areas (decks, patios, spas and pools, and similar use areas), and focal landscape areas close to the residence or activity area. Building-mounted lights must be installed below the roofline, and pole- or fence-mounted lights must be no more than eight feet above grade, except in residential parking lots.

Section 9-1-45.14 requires lighting intensity in nonresidential parking lots and adjacent areas to be at least 1.0 foot-candle at all points but not exceed an average of 3.0 foot-candles over the entire parking lot. All lighting sources must be shielded so they are not visible from outside the project site, and they must not add more than 0.2 foot-candle to ambient conditions (as measured 20 feet beyond the project boundary). Similar to residential lighting, all lights must only be installed adjacent to buildings, walkways, driveways, activity areas, and focal landscape areas. Nonresidential, building-mounted lights must also all be installed below the roofline, and pole- or fence-mounted lights must be no more than 24 feet above finish grade.



Figure 5-1.11 - Site Lighting Plan  
5. Environmental Analysis



**SHEET NOTES**

- LIGHTING SHOWN ON THIS SHEET WITHOUT A CONTROL ZONE DESIGNATION SHALL BE CONTROLLED VIA LIGHTING CONTROL PANEL/TIMECLOCK/PHOTOCELL PER ELECTRICAL ENGINEER.
- PROVIDE WITH EMERGENCY OPTIONS PER ELECTRICAL ENGINEER. TO MAINTAIN NORMAL CONTROL OF LIGHTING: FOR BATTERIES, PROVIDE UNSWITCHED "HOT" LEAD, FOR INVERTER/GENERATOR, PROVIDE SHUNT BYPASS.
- ALL EMERGENCY LIGHTING LOCATIONS AND VALUES SHALL BE ASSIGNED AND CALCULATED BY ELECTRICAL ENGINEER AS REQUIRED BY CODE.

**LIGHTING KEYNOTES**

- NOTE USED.
- POLE BASE AND FOUNDATION DETAIL PER STRUCTURAL ENGINEER (TYP).



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## 5. Environmental Analysis AESTHETICS

The proposed lighting would represent the minimum level of illumination necessary to meet the aesthetic and security needs at the project site for both day and nighttime activities. Light sources, intensity, and color would be designed and located to achieve security or decorative lighting goals without causing an adverse impact on neighboring properties through light spillover. Per Section 9-1-71.5 of the Laguna Niguel Zoning Code, potential illumination from project signage would be shaded, shielded, directed, or reduced to avoid undue brightness and spill light at residential properties in the surrounding areas. Compliance with the applicable lighting provisions of the Zoning Code would be enforced through the City's development review and building plan check process. Further, proposed landscaping and common open space areas between the residential and nonresidential buildings would soften the impact of new light and glare sources. Section 9-1-45.3, Landscaping, requires that a landscape plan be prepared and implemented, and landscaping must include trees, shrubs, vines, groundcover, or a combination thereof.

### Glare

The proposed buildings would not be designed with large expanses of glass or highly finished materials (e.g., reflective metal treatments). Nevertheless, windows could potentially increase glare because they would reflect sunlight at certain times of day. The project would include a 1.5 kilowatt/unit solar panel system on carports in the surface parking lot (see Figure 5.1-12, *Carport Photovoltaic Layout*). Although the solar panels may produce glare, it is not expected to cause extreme visual discomfort or impairment of vision for residents because the panels are designed with minimal reflectivity to absorb as much sunlight as possible. The panels would be located downslope from the residences to the west and would be obstructed by topography and existing vegetation along the hillside that would remain in place. The solar panel tilt would not result in direct glare towards residences to the west. Similarly, the panels would not be expected to cause visual impairment for motorists on area roadways because the solar panels would be located at a lower elevation than the motorists along Pacific Island Drive, setback about 500 feet from the road, and obstructed by intervening topography, buildings, and existing trees. Vehicles parked on-site would increase the potential for reflected sunlight at certain times of day, but such glare is typical of the surrounding area (i.e., residential communities, City Hall, commercial shopping centers, and parking lots) and would not increase beyond what is expected for a neighborhood-serving commercial area. Therefore, project-related day and nighttime glare impacts are not anticipated to be significant.

Further, Subarticle 7, Signs, of the Laguna Niguel Zoning Code details standards regulating signage within the City that the project would be required to adhere to. Section 9-1-71.5, Sign Illumination, states that illumination from or upon any sign shall be shaded, shielded, directed, or reduced to avoid undue brightness and limit glare or reflection of light onto residential properties in the surrounding area. Building-mounted signs, free-standing signs, and neon signs are also required to adhere to illumination standards to minimize light and glare impacts to adjacent properties.

### Shade and Shadows

The nearest shadow sensitive uses are the residences immediately to the west of the project site. As described above, the pad elevations of the existing adjoining residents would remain above the highest points of the proposed project. The pad elevations of the townhouses to the west of the project site on top of the adjoining

## 5. Environmental Analysis

### AESTHETICS

slope are approximately 420 feet amsl. All structures, including light standards and parapets would not exceed 50 feet in height <sup>2</sup>. The residential structure (Building 15) in the northwest corner of the site near Pacific Island Drive has building elements at the highest elevation above mean sea level at approximately 411 feet amsl, which remains below the pad elevations of the adjoining residential uses at 420 feet amsl. Similarly in the southern portion of the site the residences off Via Corona have pad elevations approximately 380 feet amsl and the tallest point of Buildings 1 and 2 measure approximately 368 feet amsl. Therefore, development of the project would not cast shade on shadow sensitive uses.

Overall, the project would not create new sources of substantial light, glare, or shade that would adversely affect day or nighttime views in the area, and impacts would be less than significant.

**Level of Significance Before Mitigation:** With the implementation of PPPs AES-1 and AES-2, Impact 5.1-5 would be less than significant.

#### 5.1.5 Cumulative Impacts

Aesthetic impacts are localized to the project site and immediate surrounding area. Therefore, cumulative aesthetic impacts would impact only projects near the project site. As shown in Figure 4-2, *Cumulative Projects Location Map*, most cumulative projects in Laguna Niguel are clustered near Interstate 5 (I-5), approximately three miles northeast of the project site. The remainder of the cumulative projects are mostly in the cities of San Juan Capistrano and Dana Point, approximately four miles southeast of the project site. The closest cumulative project is The Cove at El Niguel, approximately a quarter mile southwest of the project site, which consists of 23 condominiums and would not result in a cumulative impact because it is not visible from the project site or immediately surrounding areas due to distance.

As with the proposed project, The Cove at El Niguel project would alter the visual character in its vicinity near Crown Valley Parkway. However, since The Cove at El Niguel is visually consistent with its surroundings and not visible from the proposed project, the proposed project would not contribute to a cumulative visual impact within the surrounding area. Furthermore, both the proposed project and The Cove at El Niguel are required to comply with regulations related to aesthetics and lighting and glare in the Laguna Niguel Zoning Code and, when considered with past and existing development, would not create a significant cumulative impact.

#### 5.1.6 Level of Significance Before Mitigation

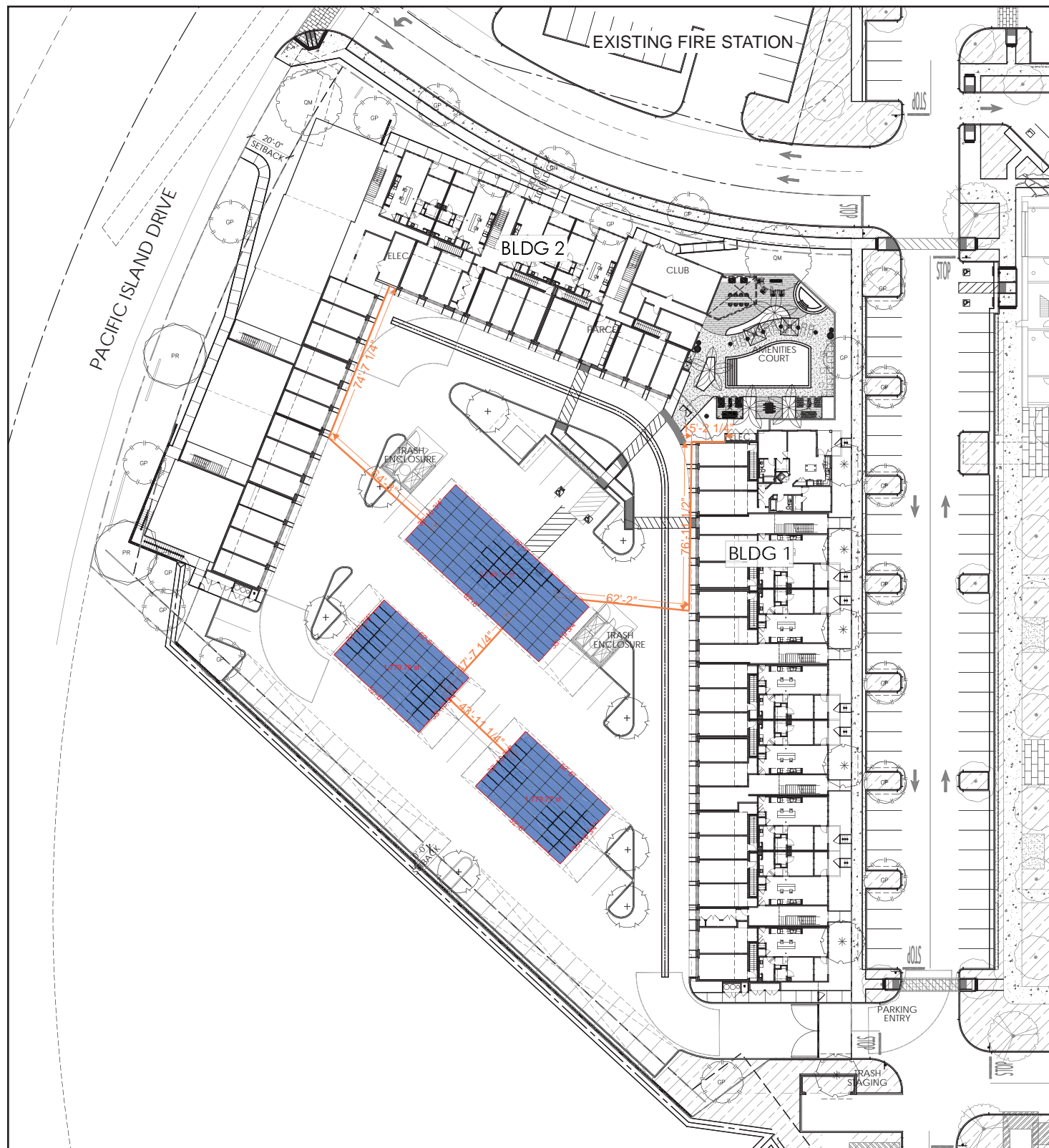
Impacts 5.1-1 and 5.1-2 have no impact.

Upon implementation of regulatory requirements and plans, programs, and policies, Impacts 5.1-3 and 5.1-4 would be less than significant.

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<sup>2</sup> The parking garage pad would be 350 feet above mean sea level

Figure 5.1-12 - Carport Photovoltaic Layout  
5. Environmental Analysis



Key Map

Project System Design	
PV System Size (kW DC)	121.5 kW
Modules	Phono 540M6-24/TH
Module Quantity	225
Total Solar Area (SQFT)	6,243.75 SQFT
PV Production (kWh)	184,315 kWh
PV System Size Goal (kW DC)	121.5 kW
Solar Area Goal (SQFT)	N/A
PV Production Goal (kWh)	N/A

PV System Attachment Details	
Array Azimuth(s)	267.5°
Array Tilt(s)	5°
Racking Equipment	Carport Purlin
# of roof attachment for blocking/waterproofing	N/A

Structural & Electrical Design	
Utility	SCE
Electrical Tie-in	NEM
Electrical Tie-in	N/A
Switchboard Bus Size	N/A
Switchboard AC Disconnect	N/A
Solar Breaker Size	400A
Allowable Solar Backfeed	N/A

Carport Details	
Solar Carport Type	Full Cantilever Steel Carport
Solar Carport Area (SQFT)	6,299.5 SQFT
Solar Carport With Roof Decking	No
Non-Solar Carport (SQFT)	N/A

Solar Conduit	
Rough-In Roof Conduit	N/A
Rough-In Carport Underground Conduit	(2) 2" PVC, (1) 1" PVC
Total Trenching Length (FT)	240'

Background Details and Source Information	
Page Source:	A7.01
Planset Label:	DPA Re-submittal
Planset Date:	09.24.2021



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## 5. Environmental Analysis AESTHETICS

### 5.1.7 Mitigation Measures

No mitigation measures are required.

### 5.1.8 Level of Significance After Mitigation

Impacts would be less than significant.

### 5.1.9 References

California Department of Transportation (Caltrans). 2011, September. Scenic Highway System.  
[http://www.dot.ca.gov/hq/LandArch/16\\_livability/scenic\\_highways/](http://www.dot.ca.gov/hq/LandArch/16_livability/scenic_highways/).

Laguna Niguel, City of. 1992. Land Use. Chapter 2 of the Laguna Niguel General Plan.  
<https://www.cityoflagunaniguel.org/132/General-Plan>.

## 5. Environmental Analysis

### AESTHETICS

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## 5. Environmental Analysis

### 5.2 AIR QUALITY

This section of the Draft Environmental Impact Report (DEIR) evaluates the potential for the Laguna Niguel City Center Mixed Use Project (proposed project) to impact air quality in a local and regional context. This evaluation is based on the methodology recommended by the South Coast Air Quality Management District (South Coast AQMD). The analysis focuses on the project's contribution to air pollution from regional emissions and localized pollutant concentrations. Criteria air pollutant emissions modeling for the proposed project is included in Appendix C of this DEIR. Transportation-sector impacts are based on trip generation and vehicle miles traveled as provided by LLG (see Appendix L). Cumulative impacts related to air quality are based on the regional boundaries of the South Coast Air Basin (SoCAB). The analysis of criteria air pollutants is inherently cumulative.

#### 5.2.1 Environmental Setting

##### 5.2.1.1 AIR POLLUTANTS OF CONCERN

###### Criteria Air Pollutants

The pollutants emitted into the ambient air by stationary and mobile sources are categorized as primary and/or secondary pollutants. Primary air pollutants are emitted directly from stationary and mobile sources. Carbon monoxide (CO), volatile organic compounds (VOC), nitrogen oxides (NO<sub>x</sub>), sulfur dioxide (SO<sub>2</sub>), coarse inhalable particulate matter (PM<sub>10</sub>), fine inhalable particulate matter (PM<sub>2.5</sub>), and lead (Pb) are primary air pollutants. Of these, CO, SO<sub>2</sub>, nitrogen dioxide (NO<sub>2</sub>), PM<sub>10</sub>, and PM<sub>2.5</sub> are "criteria air pollutants," which means that ambient air quality standards (AAQS) have been established for them. VOC and NO<sub>x</sub> are criteria pollutant precursors that form secondary criteria air pollutants through chemical and photochemical reactions in the atmosphere. Ozone (O<sub>3</sub>) and NO<sub>2</sub> are the principal secondary pollutants.

Each of the primary and secondary criteria air pollutants and its known health effects are described below.

- **Carbon Monoxide** is a colorless, odorless, toxic gas produced by incomplete combustion of carbon substances, such as gasoline or diesel fuel. CO is a primary criteria air pollutant. CO concentrations tend to be the highest during winter mornings with little to no wind, when surface-based inversions trap the pollutant at ground levels. Because CO is emitted directly from internal combustion, engines and motor vehicles operating at slow speeds are the primary source of CO in the SoCAB. The highest ambient CO concentrations are generally found near traffic-congested corridors and intersections. The primary adverse health effect associated with CO is interference with normal oxygen transfer to the blood, which may result in tissue oxygen deprivation (South Coast AQMD 2005; US EPA 2021a). The SoCAB is designated as being in attainment under the California AAQS and attainment (serious maintenance) under the National AAQS (CARB 2019).
- **Volatile Organic Compounds** are composed primarily of hydrogen and carbon atoms. Internal combustion associated with motor vehicle usage is the major source of VOCs. Other sources include evaporative emissions from paints and solvents, asphalt paving, and household consumer products such as aerosols (South Coast AQMD 2005). There are no AAQS for VOCs. However, because they contribute to

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### AIR QUALITY

the formation of O<sub>3</sub>, South Coast AQMD has established a significance threshold. The health effects for ozone are described later in this section.

- **Nitrogen Oxides** are a byproduct of fuel combustion and contribute to the formation of O<sub>3</sub>, PM<sub>10</sub>, and PM<sub>2.5</sub>. The two major forms of NO<sub>x</sub> are nitric oxide (NO) and NO<sub>2</sub>. The principal form of NO<sub>2</sub> produced by combustion is NO, but NO reacts with oxygen to form NO<sub>2</sub>, creating the mixture of NO and NO<sub>2</sub> commonly called NO<sub>x</sub>. NO<sub>2</sub> acts as an acute irritant and, in equal concentrations, is more injurious than NO. At atmospheric concentrations, however, NO<sub>2</sub> is only potentially irritating. There is some indication of a relationship between NO<sub>2</sub> and chronic pulmonary fibrosis. Some increase in bronchitis in children (two and three years old) has also been observed at concentrations below 0.3 part per million (ppm). NO<sub>2</sub> absorbs blue light; the result is a brownish-red cast to the atmosphere and reduced visibility. NO is a colorless, odorless gas formed from atmospheric nitrogen and oxygen when combustion takes place under high temperature and/or high pressure (South Coast AQMD 2005; US EPA 2021a). The SoCAB is designated as an attainment (maintenance) area under the National AAQS and attainment area under the California AAQS (CARB 2019).
- **Sulfur Dioxide** is a colorless, pungent, irritating gas formed by the combustion of sulfurous fossil fuels. It enters the atmosphere as a result of burning high-sulfur-content fuel oils and coal and chemical processes at plants and refineries. Gasoline and natural gas have very low sulfur content and do not release significant quantities of SO<sub>2</sub>. When sulfur dioxide forms sulfates (SO<sub>4</sub>) in the atmosphere, together these pollutants are referred to as sulfur oxides (SO<sub>x</sub>). Thus, SO<sub>2</sub> is both a primary and secondary criteria air pollutant. At sufficiently high concentrations, SO<sub>2</sub> may irritate the upper respiratory tract. Current scientific evidence links short-term exposures to SO<sub>2</sub>, ranging from 5 minutes to 24 hours, with an array of adverse respiratory effects, including bronchoconstriction and increased asthma symptoms. These effects are particularly adverse for asthmatics at elevated ventilation rates (e.g., while exercising or playing) at lower concentrations and when combined with particulates, SO<sub>2</sub> may do greater harm by injuring lung tissue. Studies also show a connection between short-term exposure and increased visits to emergency facilities and hospital admissions for respiratory illnesses, particularly in at-risk populations such as children, the elderly, and asthmatics (South Coast AQMD 2005; US EPA 2021a). The SoCAB is designated as attainment under the California and National AAQS (CARB 2019).
- **Suspended Particulate Matter** consists of finely divided solids or liquids such as soot, dust, aerosols, fumes, and mists. Two forms of fine particulates are now recognized and regulated. Inhalable coarse particles, or PM<sub>10</sub>, include particulate matter with an aerodynamic diameter of 10 microns or less (i.e., ≤10 millionths of a meter or 0.0004 inch). Inhalable fine particles, or PM<sub>2.5</sub>, have an aerodynamic diameter of 2.5 microns or less (i.e., ≤2.5 millionths of a meter or 0.0001 inch). Particulate discharge into the atmosphere results primarily from industrial, agricultural, construction, and transportation activities. Both PM<sub>10</sub> and PM<sub>2.5</sub> may adversely affect the human respiratory system, especially in people who are naturally sensitive or susceptible to breathing problems. The US Environmental Protection Agency's (EPA) scientific review concluded that PM<sub>2.5</sub>, which penetrates deeply into the lungs, is more likely than PM<sub>10</sub> to contribute to health effects and at far lower concentrations. These health effects include premature death in people with heart or lung disease, nonfatal heart attacks, irregular heartbeat, aggravated asthma, decreased lung function, and increased respiratory symptoms (e.g., irritation of the airways, coughing, or difficulty

## 5. Environmental Analysis

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breathing) (South Coast AQMD 2005). There has been emerging evidence that ultrafine particulates, which are even smaller particulates with an aerodynamic diameter of  $<0.1$  microns or less (i.e.,  $\leq 0.1$  millionths of a meter or  $<0.000004$  inch) have human health implications because their toxic components may initiate or facilitate biological processes that may lead to adverse effects to the heart, lungs, and other organs (South Coast AQMD 2013). However, the EPA and the California Air Resources Board (CARB) have not adopted AAQS to regulate these particulates. Diesel particulate matter is classified by CARB as a carcinogen (CARB 1998). Particulate matter can also cause environmental effects such as visibility impairment,<sup>1</sup> environmental damage,<sup>2</sup> and aesthetic damage<sup>3</sup> (South Coast AQMD 2005; US EPA 2021a). The SoCAB is a nonattainment area for PM<sub>2.5</sub> under California and National AAQS and a nonattainment area for PM<sub>10</sub> under the California AAQS (CARB 2019).<sup>4</sup>

- **Ozone**, or O<sub>3</sub>, is a key ingredient of “smog” and is a gas that is formed when VOCs and NO<sub>x</sub>, both by-products of internal combustion engine exhaust, undergo photochemical reactions in sunlight. O<sub>3</sub> is a secondary criteria air pollutant. O<sub>3</sub> concentrations are generally highest during the summer months when direct sunlight, light winds, and warm temperatures create favorable conditions for its formation. O<sub>3</sub> poses a health threat to those who already suffer from respiratory diseases as well as to healthy people. Breathing O<sub>3</sub> can trigger a variety of health problems, including chest pain, coughing, throat irritation, and congestion. It can worsen bronchitis, emphysema, and asthma. Ground-level O<sub>3</sub> also can reduce lung function and inflame the linings of the lungs. Repeated exposure may permanently scar lung tissue. O<sub>3</sub> also affects sensitive vegetation and ecosystems, including forests, parks, wildlife refuges, and wilderness areas. In particular, O<sub>3</sub> harms sensitive vegetation during the growing season (South Coast AQMD 2005; US EPA 2021a). The SoCAB is designated extreme nonattainment under the California AAQS (1-hour and 8-hour) and National AAQS (8-hour) (CARB 2019).
- **Lead (Pb)** is a metal found naturally in the environment as well as in manufactured products. Once taken into the body, lead distributes throughout the body in the blood and accumulates in the bones. Depending on the level of exposure, lead can adversely affect the nervous system, kidney function, immune system, reproductive and developmental systems, and the cardiovascular system. Lead exposure also affects the oxygen-carrying capacity of the blood. The effects of lead most commonly encountered in current populations are neurological effects in children and cardiovascular effects in adults (e.g., high blood pressure and heart disease). Infants and young children are especially sensitive to even low levels of lead, which may contribute to behavioral problems, learning deficits, and lowered IQ (South Coast AQMD 2005; US EPA 2021a). The major sources of lead emissions have historically been mobile and industrial sources. As a result of the EPA’s regulatory efforts to remove lead from gasoline, emissions of lead from the

<sup>1</sup> PM<sub>2.5</sub> is the main cause of reduced visibility (haze) in parts of the United States.

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

<sup>3</sup> Particulate matter can stain and damage stone and other materials, including culturally important objects such as statues and monuments.

<sup>4</sup> CARB approved the South Coast AQMD’s request to redesignate the SoCAB from serious nonattainment for PM<sub>10</sub> to attainment for PM<sub>10</sub> under the National AAQS on March 25, 2010, because the SoCAB did not violate federal 24-hour PM<sub>10</sub> standards from 2004 to 2007. The EPA approved the State of California’s request to redesignate the South Coast PM<sub>10</sub> nonattainment area to attainment of the PM<sub>10</sub> National AAQS, effective on July 26, 2013.

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transportation sector dramatically declined by 95 percent between 1980 and 1999, and levels of lead in the air decreased by 94 percent between 1980 and 1999. Today, the highest levels of lead in air are usually found near lead smelters. The major sources of lead emissions today are ore and metals processing and piston-engine aircraft operating on leaded aviation gasoline. However, in 2008 the EPA and CARB adopted more strict lead standards, and special monitoring sites immediately downwind of lead sources recorded very localized violations of the new state and federal standards.<sup>5</sup> As a result of these violations, the Los Angeles County portion of the SoCAB is designated nonattainment under the National AAQS for lead (South Coast AQMD 2012; CARB 2019). Because emissions of lead are found only in projects that are permitted by South Coast AQMD, lead is not a pollutant of concern for the proposed project.

Table 5.2-1, *Criteria Air Pollutant Health Effects Summary*, summarizes the potential health effects associated with the criteria air pollutants.

**Table 5.2-1 Criteria Air Pollutant Health Effects Summary**

Pollutant	Health Effects	Examples of Sources
Carbon Monoxide (CO)	<ul style="list-style-type: none"> <li>• Chest pain in heart patients</li> <li>• Headaches, nausea</li> <li>• Reduced mental alertness</li> <li>• Death at very high levels</li> </ul>	Any source that burns fuel such as cars, trucks, construction and farming equipment, and residential heaters and stoves
Ozone (O <sub>3</sub> )	<ul style="list-style-type: none"> <li>• Cough, chest tightness</li> <li>• Difficulty taking a deep breath</li> <li>• Worsened asthma symptoms</li> <li>• Lung inflammation</li> </ul>	Atmospheric reaction of organic gases with nitrogen oxides in sunlight
Nitrogen Dioxide (NO <sub>2</sub> )	<ul style="list-style-type: none"> <li>• Increased response to allergens</li> <li>• Aggravation of respiratory illness</li> </ul>	Same as carbon monoxide sources
Particulate Matter (PM <sub>10</sub> and PM <sub>2.5</sub> )	<ul style="list-style-type: none"> <li>• Hospitalizations for worsened heart diseases</li> <li>• Emergency room visits for asthma</li> <li>• Premature death</li> </ul>	Cars and trucks (particularly diesels) Fireplaces and woodstoves Windblown dust from overlays, agriculture, and construction
Sulfur Dioxide (SO <sub>2</sub> )	<ul style="list-style-type: none"> <li>• Aggravation of respiratory disease (e.g., asthma and emphysema)                             <ul style="list-style-type: none"> <li>• Reduced lung function</li> </ul> </li> </ul>	Combustion of sulfur-containing fossil fuels, smelting of sulfur-bearing metal ores, and industrial processes
Lead (Pb)	<ul style="list-style-type: none"> <li>• Behavioral and learning disabilities in children</li> <li>• Nervous system impairment</li> </ul>	Contaminated soil

Source: CARB 2019; South Coast AQMD 2005.

### Toxic Air Contaminants

People exposed to toxic air contaminants (TAC) at sufficient concentrations and durations may have an increased chance of getting cancer or experiencing other serious health effects. These health effects can include

<sup>5</sup> Source-oriented monitors record concentrations of lead at lead-related industrial facilities in the SoCAB, which include Exide Technologies in the City of Commerce; Quemetco, Inc., in the City of Industry; Trojan Battery Company in Santa Fe Springs; and Exide Technologies in Vernon. Monitoring conducted between 2004 through 2007 showed that the Trojan Battery Company and Exide Technologies exceed the federal standards (South Coast AQMD 2012).

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damage to the immune system as well as neurological, reproductive (e.g., reduced fertility), developmental, respiratory, and other health problems (US EPA 2021b). By the last update to the TAC list in December 1999, CARB had designated 244 compounds as TACs (CARB 1999). Additionally, CARB has implemented control measures for a number of compounds that pose high risks and show potential for effective control. There are no air quality standards for TACs. Instead, TAC impacts are evaluated by calculating the health risks associated with a given exposure. The majority of the estimated health risks from TACs can be attributed to relatively few compounds, the most relevant to the proposed project being particulate matter from diesel-fueled engines.

#### *Diesel Particulate Matter*

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

#### **5.2.1.2 REGULATORY BACKGROUND**

Ambient air quality standards (AAQS) have been adopted at the state and federal levels for criteria air pollutants. In addition, both the state and federal government regulate the release of TACs. The proposed project is in the SoCAB and is subject to the rules and regulations imposed by the South Coast AQMD, the California AAQS adopted by the California Air Resources Board (CARB), and National AAQS adopted by the EPA. Federal, state, regional, and local laws, regulations, plans, or guidelines that are potentially applicable to the proposed project are summarized in this section.

#### **Federal and State**

##### *Ambient Air Quality Standards*

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

The National and California AAQS are the levels of air quality considered to provide a margin of safety in the protection of the public health and welfare. They are designed to protect “sensitive receptors” most susceptible to further respiratory distress, such as asthmatics, the elderly, very young children, people already weakened by other disease or illness, and persons engaged in strenuous work or exercise. Healthy adults can tolerate

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occasional exposure to air pollutant concentrations considerably above these minimum standards before adverse effects are observed.

Both California and the federal government have established health-based AAQS for seven air pollutants, which are shown in Table 5.2-2, *Ambient Air Quality Standards for Criteria Air Pollutants*. These pollutants are O<sub>3</sub>, NO<sub>2</sub>, CO, SO<sub>2</sub>, PM<sub>10</sub>, PM<sub>2.5</sub>, and Pb. In addition, the state has set standards for sulfates, hydrogen sulfide, vinyl chloride, and visibility-reducing particles. These standards are designed to protect the health and welfare of the populace with a reasonable margin of safety.

**Table 5.2-2 Ambient Air Quality Standards for Criteria Air Pollutants**

Pollutant	Averaging Time	California Standard <sup>1</sup>	Federal Primary Standard <sup>2</sup>	Major Pollutant Sources
Ozone (O <sub>3</sub> ) <sup>3</sup>	1 hour	0.09 ppm	*	Motor vehicles, paints, coatings, and solvents.
	8 hours	0.070 ppm	0.070 ppm	
Carbon Monoxide (CO)	1 hour	20 ppm	35 ppm	Internal combustion engines, primarily gasoline-powered motor vehicles.
	8 hours	9.0 ppm	9 ppm	
Nitrogen Dioxide (NO <sub>2</sub> )	Annual Arithmetic Mean	0.030 ppm	0.053 ppm	Motor vehicles, petroleum-refining operations, industrial sources, aircraft, ships, and railroads.
	1 hour	0.18 ppm	0.100 ppm	
Sulfur Dioxide (SO <sub>2</sub> )	Annual Arithmetic Mean	*	0.030 ppm	Fuel combustion, chemical plants, sulfur recovery plants, and metal processing.
	1 hour	0.25 ppm	0.075 ppm	
	24 hours	0.04 ppm	0.14 ppm	
Respirable Coarse Particulate Matter (PM <sub>10</sub> )	Annual Arithmetic Mean	20 µg/m <sup>3</sup>	*	Dust and fume-producing construction, industrial, and agricultural operations, combustion, atmospheric photochemical reactions, and natural activities (e.g., wind-raised dust and ocean sprays).
	24 hours	50 µg/m <sup>3</sup>	150 µg/m <sup>3</sup>	
Respirable Fine Particulate Matter (PM <sub>2.5</sub> ) <sup>4</sup>	Annual Arithmetic Mean	12 µg/m <sup>3</sup>	12 µg/m <sup>3</sup>	Dust and fume-producing construction, industrial, and agricultural operations, combustion, atmospheric photochemical reactions, and natural activities (e.g., wind-raised dust and ocean sprays).
	24 hours	*	35 µg/m <sup>3</sup>	
Lead (Pb)	30-Day Average	1.5 µg/m <sup>3</sup>	*	Present source: lead smelters, battery manufacturing & recycling facilities. Past source: combustion of leaded gasoline.
	Calendar Quarter	*	1.5 µg/m <sup>3</sup>	
	Rolling 3-Month Average	*	0.15 µg/m <sup>3</sup>	
Sulfates (SO <sub>4</sub> ) <sup>5</sup>	24 hours	25 µg/m <sup>3</sup>	*	Industrial processes.

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AIR QUALITY**Table 5.2-2 Ambient Air Quality Standards for Criteria Air Pollutants**

Pollutant	Averaging Time	California Standard <sup>1</sup>	Federal Primary Standard <sup>2</sup>	Major Pollutant Sources
Visibility-Reducing Particles	8 hours	ExCo = 0.23/km visibility of 10≥ miles	No Federal Standard	Visibility-reducing particles consist of suspended particulate matter, which is a complex mixture of tiny particles that consists of dry solid fragments, solid cores with liquid coatings, and small droplets of liquid. These particles vary greatly in shape, size and chemical composition, and can be made up of many different materials such as metals, soot, soil, dust, and salt.
Hydrogen Sulfide	1 hour	0.03 ppm	No Federal Standard	Hydrogen sulfide (H <sub>2</sub> S) is a colorless gas with the odor of rotten eggs. It is formed during bacterial decomposition of sulfur-containing organic substances. Also, it can be present in sewer gas and some natural gas, and can be emitted as the result of geothermal energy exploitation.
Vinyl Chloride	24 hours	0.01 ppm	No Federal Standard	Vinyl chloride (chloroethene), a chlorinated hydrocarbon, is a colorless gas with a mild, sweet odor. Most vinyl chloride is used to make polyvinyl chloride (PVC) plastic and vinyl products. Vinyl chloride has been detected near landfills, sewage plants, and hazardous waste sites, due to microbial breakdown of chlorinated solvents.

Source: CARB 2016.

Notes: ppm: parts per million; µg/m<sup>3</sup>: micrograms per cubic meter

\* Standard has not been established for this pollutant/duration by this entity.

<sup>1</sup> California standards for O<sub>3</sub>, CO (except 8-hour Lake Tahoe), SO<sub>2</sub> (1 and 24 hour), NO<sub>2</sub>, and particulate matter (PM<sub>10</sub>, PM<sub>2.5</sub>, and visibility reducing particles), are values that are not to be exceeded. All others are not to be equalled or exceeded. California ambient air quality standards are listed in the Table of Standards in Section 70200 of Title 17 of the California Code of Regulations.

<sup>2</sup> National standards (other than O<sub>3</sub>, PM, and those based on annual arithmetic mean) are not to be exceeded more than once a year. The O<sub>3</sub> standard is attained when the fourth highest 8-hour concentration measured at each site in a year, averaged over three years, is equal to or less than the standard. For PM<sub>10</sub>, the 24-hour standard is attained when the expected number of days per calendar year with a 24-hour average concentration above 150 µg/m<sup>3</sup> is equal to or less than one. For PM<sub>2.5</sub>, the 24-hour standard is attained when 98 percent of the daily concentrations, averaged over three years, are equal to or less than the standard.

<sup>3</sup> On October 1, 2015, the national 8-hour ozone primary and secondary standards were lowered from 0.075 to 0.070 ppm.

<sup>4</sup> On December 14, 2012, the national annual PM<sub>2.5</sub> primary standard was lowered from 15 µg/m<sup>3</sup> to 12.0 µg/m<sup>3</sup>. The existing national 24-hour PM<sub>2.5</sub> standards (primary and secondary) were retained at 35 µg/m<sup>3</sup>, as was the annual secondary standard of 15 µg/m<sup>3</sup>. The existing 24-hour PM<sub>10</sub> standards (primary and secondary) of 150 µg/m<sup>3</sup> also were retained. The form of the annual primary and secondary standards is the annual mean, averaged over 3 years.

<sup>5</sup> On June 2, 2010, a new 1-hour SO<sub>2</sub> standard was established and the existing 24-hour and annual primary standards were revoked. The 1-hour national standard is in units of parts per billion (ppb). California standards are in units of parts per million (ppm). To directly compare the 1-hour national standard to the California standard the units can be converted to ppm. In this case, the national standard of 75 ppb is identical to 0.075 ppm.

**Corporate Average Fuel Economy Standards**

The National Highway Traffic Safety Administration (NHTSA) administers the Corporate Average Fuel Economy (CAFE) standards, which regulate how far vehicles must be able to travel on a gallon of fuel. NHTSA sets CAFE standards for passenger cars and for light trucks (collectively, light-duty vehicles), and separately sets fuel consumption standards for medium- and heavy-duty trucks and engines. NHTSA has proposed new fuel economy standards for new passenger cars and light trucks for model years 2024–2026. The standards would

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increase in stringency by about 8 percent each year, reaching a fleetwide average of 48 miles per gallon (mpg) by 2026.

California is the only state allowed to set its own air emissions standards for motor vehicles. California was granted an exception under the Clean Air Act because the state had already implemented standards in 1966 to address its critical smog problem and had established an Air Resources Board (CARB) to oversee them. The Clean Air Act states that the EPA shall grant a waiver if California's standards are necessary to meet compelling circumstances and are at least as stringent as federal standards. Other states may choose to adopt California's vehicle emissions standards without EPA approval. Thirteen states and the District of Columbia, making up about 30 percent of U.S. auto sales, currently follow at least some of California's vehicle emissions standards.

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

- **Assembly Bill (AB) 1493: Pavley Fuel Efficiency Standards.** Pavley I is a clean-car standard that reduces greenhouse gas (GHG) emissions from new passenger vehicles (light-duty auto to medium-duty vehicles) from 2009 through 2016. In January 2012, CARB approved the Advanced Clean Cars program (formerly known as Pavley II) for model years 2017 through 2025.
- **Senate Bill (SB) 1078, SB 107, and SB 100: Renewables Portfolio Standards.** A major component of California's Renewable Energy Program is the renewables portfolio standard (RPS) established under SB 1078 (Sher) and SB 107 (Simitian). Under the RPS, certain retail sellers of electricity were required to increase the amount of renewable energy each year, originally by at least 1 percent to reach at least 20 percent by December 30, 2010. The RPS target for 2016 was 25 percent and for 2020 was 33 percent. SB 100 (2018) set the following RPS targets: 44 percent of retail electricity sales by December 31, 2024, 52 percent by December 31, 2027, and 60 percent by December 31, 2030. In addition, SB 100 states that it is the policy of the state that eligible renewable energy resources and zero-carbon resources supply 100 percent of retail sales of electricity to California end-use customers and 100 percent of electricity procured to serve all state agencies by December 31, 2045.
- **20 California Code of Regulations (CCR): Appliance Energy Efficiency Standards.** The 2006 Appliance Efficiency Regulations (20 CCR sections 1601–1608) were adopted by the California Energy Commission on October 11, 2006, and approved by the California Office of Administrative Law on December 14, 2006. The regulations include standards for both federally regulated appliances and non-federally regulated appliances and have been periodically updated since 2006.
- **24 CCR, Part 6: Building and Energy Efficiency Standards.** Energy efficiency standards for new residential and nonresidential buildings adopted by the California Energy Resources Conservation and Development Commission (now the California Energy Commission) in June 1977. The energy efficiency standards (Title 24, Part 6) are updated every three years, with each update resulting in increasing building energy efficiency. The current energy efficiency standards were adopted in 2019 and the next iteration goes into effect on January 1, 2023 (2022 Title 24). The 2019 Title 24 includes a solar mandate for low-rise residential construction and strict lighting efficiency requirements for commercial construction. The 2022



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Title 24 extends the solar mandate to most commercial construction and requires high-rise residential buildings to be solar ready.

- **24 CCR, Part 11: Green Building Standards Code.** Establishes planning and design standards for sustainable site development, energy efficiency (in excess of the California Energy Efficiency Code requirements), water conservation, material conservation, and internal air contaminants.<sup>6</sup> As with the energy efficiency standards, Title 24, Part 11 is updated every three years, with each update increasing the stringency of the code.

#### *Tanner Air Toxics Act and Air Toxics Hot Spot Information and Assessment Act*

Public exposure to TACs is a significant environmental health issue in California. In 1983, the California legislature enacted a program to identify the health effects of TACs and reduce exposure to them. The California Health and Safety Code defines a TAC as “an air pollutant which may cause or contribute to an increase in mortality or in serious illness, or which may pose a present or potential hazard to human health” (17 CCR section 93000). A substance that is listed as a hazardous air pollutant pursuant to section 112(b) of the federal Clean Air Act (42 US Code section 7412[b]) is a TAC. Under state law, the California Environmental Protection Agency (CalEPA), acting through CARB, is authorized to identify a substance as a TAC if it is an air pollutant that may cause or contribute to an increase in mortality or serious illness, or may pose a present or potential hazard to human health.

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

Under AB 2588, TAC emissions from individual facilities are quantified and prioritized by the air quality management district or air pollution control district. High-priority facilities are required to perform a health risk assessment and are required to communicate the results to the public through notices and public meetings if specific thresholds are exceeded.

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

- **13 CCR Chapter 10 section 2485: Airborne Toxic Control Measure to Limit Diesel-Fueled Commercial Motor Vehicle Idling.** Generally restricts on-road diesel-powered commercial motor vehicles with a gross vehicle weight rating of greater than 10,000 pounds from idling more than five minutes.

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<sup>6</sup> The green building standards became mandatory in the 2010 edition of the code.

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- **13 CCR Chapter 10 section 2480: Airborne Toxic Control Measure to Limit School Bus Idling and Idling at Schools.** Generally restricts a school bus or transit bus from idling for more than five minutes when within 100 feet of a school.
- **13 CCR section 2477 and Article 8: Airborne Toxic Control Measure for In-Use Diesel-Fueled Transport Refrigeration Units (TRU) and TRU Generator Sets and Facilities Where TRUs Operate.** Regulations established to control emissions associated with diesel-powered TRUs.

### Regional

#### *Air Quality Management Planning*

South Coast AQMD is the agency responsible for improving air quality in the SoCAB and ensuring that the National and California AAQS are attained and maintained. South Coast AQMD is responsible for preparing the air quality management plan (AQMP) for the SoCAB in coordination with the Southern California Association of Governments (SCAG).

#### *2016 AQMP*

On March 3, 2017, South Coast AQMD adopted the 2016 AQMP, which serves as an update to the 2012 AQMP. The 2016 AQMP addresses strategies and measures to attain the following National AAQS:

- 2008 National 8-hour ozone standard by 2031
- 2012 National annual PM<sub>2.5</sub> standard by 2025<sup>7</sup>
- 2006 National 24-hour PM<sub>2.5</sub> standard by 2019
- 1997 National 8-hour ozone standard by 2023
- 1979 National 1-hour ozone standard by 2022

It is projected that total NO<sub>x</sub> emissions in the SoCAB would need to be reduced to 150 tons per day (tpd) by year 2023 and to 100 tpd in year 2031 to meet the 1997 and 2008 federal 8-hour ozone standards. The strategy to meet the 1997 federal 8-hour ozone standard would also lead to attaining the 1979 federal 1-hour ozone standard by year 2022 (South Coast AQMD 2017), which requires reducing NO<sub>x</sub> emissions in the SoCAB to 250 tpd. This is approximately 45 percent additional reductions above existing regulations for the 2023 ozone standard and 55 percent additional reductions to existing regulations to meet the 2031 ozone standard.

Reducing NO<sub>x</sub> emissions would also reduce PM<sub>2.5</sub> concentrations in the SoCAB. However, because the goal is to meet the 2012 federal annual PM<sub>2.5</sub> standard no later than year 2025, South Coast AQMD is seeking to reclassify the SoCAB from “moderate” to “serious” nonattainment under this federal standard. A “moderate” nonattainment would require meeting the 2012 federal standard by no later than 2021.

Overall, the 2016 AQMP is composed of stationary and mobile-source emission reductions from regulatory control measures, incentive-based programs, co-benefits from climate programs, mobile-source strategies, and reductions from federal sources, such as aircrafts, locomotives, and ocean-going vessels. Strategies outlined in

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<sup>7</sup> The 2016 AQMP requests a reclassification from moderate to serious nonattainment for the 2012 National PM<sub>2.5</sub> standard.

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the 2016 AQMP would be implemented in collaboration between CARB and the EPA (South Coast AQMD 2017).

#### *Lead Implementation Plan*

In 2008, the EPA designated the Los Angeles County portion of the SoCAB as a nonattainment area under the federal lead (Pb) classification because of the addition of source-specific monitoring under the new federal regulation. This designation was based on two source-specific monitors in the City of Vernon and the City of Industry that exceeded the new standard in the 2007 to 2009 period. The remainder of the SoCAB, outside the Los Angeles County nonattainment area, remains in attainment of the new 2008 lead standard. On May 24, 2012, CARB approved the State Implementation Plan (SIP) revision for the federal lead standard, which the EPA revised in 2008. Lead concentrations in this nonattainment area have been below the level of the federal standard since December 2011. The SIP revision was submitted to the EPA for approval.

#### *South Coast AQMD Rules and Regulations*

All projects are subject to South Coast AQMD rules and regulations in effect at the time of activity, including:

- **Rule 401, Visible Emissions.** This rule is intended to prevent the discharge of pollutant emissions from an emissions source that results in visible emissions. Specifically, the rule prohibits the discharge of any air contaminant into the atmosphere by a person from any single source of emission for a period or periods aggregating more than three minutes in any one hour that is as dark as or darker than designated No. 1 on the Ringelmann Chart, as published by the US Bureau of Mines.
- **Rule 402, Nuisance.** This rule is intended to prevent the discharge of pollutant emissions from an emissions source that results in a public nuisance. Specifically, this rule prohibits any person from discharging quantities of air contaminants or other material from any source such that it would result in an injury, detriment, nuisance, or annoyance to any considerable number of persons or to the public. Additionally, the discharge of air contaminants would also be prohibited where it would endanger the comfort, repose, health, or safety of any number of persons or the public, or that cause, or have a natural tendency to cause, injury or damage to business or property. This rule does not apply to odors emanating from agricultural operations necessary for the growing of crops or the raising of fowl or animals.
- **Rule 403, Fugitive Dust.** This rule is intended to reduce the amount of particulate matter entrained in the ambient air as a result of anthropogenic (human-made) fugitive dust sources by requiring actions to prevent, reduce, or mitigate fugitive dust emissions. Rule 403 applies to any activity or human-made condition capable of generating fugitive dust and requires best available control measures to be applied to earth-moving and grading activities.
- **Rule 445, Wood Burning Devices.** In general, the rule prohibits new developments from the installation of wood-burning devices. This rule is intended to reduce the emission of particulate matter from wood-burning devices and applies to manufacturers and sellers of wood-burning devices, commercial sellers of firewood, and property owners and tenants that operate a wood-burning device.

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- **Rule 1113, Architectural Coatings.** This rule serves to limit the VOCs content of architectural coatings used on projects in the South Coast AQMD. Any person who supplies, sells, offers for sale, or manufactures any architectural coating for use on projects in the South Coast AQMD must comply with the current VOC standards set in this rule.
- **Rule 1403, Asbestos Emissions from Demolition/Renovation Activities.** The purpose of this rule is to specify work practice requirements to limit asbestos emissions from building demolition and renovation activities, including the removal and associated disturbance of asbestos-containing materials (ACM). The requirements for demolition and renovation activities include asbestos surveying, notification, ACM removal procedures and time schedules, ACM handling and clean-up procedures, and storage, disposal, and landfilling requirements for asbestos-containing waste materials. All operators are required to maintain records, including waste shipment records, and are required to use appropriate warning labels, signs, and markings.

#### 5.2.1.3 EXISTING CONDITIONS

##### South Coast Air Basin

The proposed project site is in the SoCAB, which includes all of Orange County and the nondesert portions of Los Angeles, Riverside, and San Bernardino counties. The SoCAB is in a coastal plain with connecting broad valleys and low hills and is bounded by the Pacific Ocean in the southwest quadrant, with high mountains forming the remainder of the perimeter. The general region lies in the semi-permanent high-pressure zone of the eastern Pacific. As a result, the climate is mild, tempered by cool sea breezes. This usually mild weather pattern is interrupted infrequently by periods of extremely hot weather, winter storms, and Santa Ana winds (South Coast AQMD 2005).

##### Meteorology

###### *Temperature and Precipitation*

The annual average temperature varies little throughout the SoCAB, ranging from the low to middle 60s, measured in degrees Fahrenheit (°F). With a more pronounced oceanic influence, coastal areas show less variability in annual minimum and maximum temperatures than inland areas. The climatological station nearest to the project site that best represents the climatological conditions of the project area is the Laguna Beach, California Monitoring Station (ID 044647). The average low is reported at 43.0°F in January, and the average high is 78.1°F in August (WRCC 2021).

In contrast to a very steady pattern of temperature, rainfall is seasonally and annually highly variable. Almost all rain falls from November through May. Rainfall averages 12.52 inches per year in the vicinity of the project site (WRCC 2021).

###### *Humidity*

Although the SoCAB has a semiarid climate, the air near the earth's surface is typically moist because of a shallow marine layer. This "ocean effect" is dominant except for infrequent periods when dry, continental air

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is brought into the SoCAB by offshore winds. Periods of heavy fog are frequent, especially along the coast. Low clouds, often referred to as high fog, are a characteristic climatic feature. Annual average humidity is 70 percent at the coast and 57 percent in the eastern portions of the SoCAB (South Coast AQMD 1993).

#### *Wind*

Wind patterns across the southern coastal region are characterized by westerly or southwesterly onshore winds during the day and easterly or northeasterly breezes at night. Wind speed is somewhat greater during the dry summer months than during the rainy winter season.

Between periods of wind, periods of air stagnation may occur in the morning and evening hours. Air stagnation is one of the critical determinants of air quality conditions on any given day. During the winter and fall months, surface high-pressure systems over the SoCAB, combined with other meteorological conditions, can result in very strong, downslope Santa Ana winds. These winds normally continue a few days before predominant meteorological conditions are reestablished.

The mountain ranges to the east inhibit the eastward transport and diffusion of pollutants. Air quality in the SoCAB generally ranges from fair to poor and is similar to air quality in most of coastal Southern California. The entire region experiences heavy concentrations of air pollutants during prolonged periods of stable atmospheric conditions (South Coast AQMD 2005).

#### *Inversions*

In conjunction with the two characteristic wind patterns that affect the rate and orientation of horizontal pollutant transport, two distinct types of temperature inversions control the vertical depth through which pollutants are mixed. These inversions are the marine/subsidence inversion and the radiation inversion. The height of the base of the inversion at any given time is known as the “mixing height.” The combination of winds and inversions are critical determinants in leading to the highly degraded air quality in summer and the generally good air quality in the winter in the project area (South Coast AQMD 2005).

#### **SoCAB Nonattainment Areas**

The AQMP provides the framework for air quality basins to achieve attainment of the state and federal ambient air quality standards through the SIP. Areas are classified as attainment or nonattainment areas for particular pollutants depending on whether they meet the AAQS. Severity classifications for ozone nonattainment range in magnitude from marginal, moderate, and serious to severe and extreme.

- ***Unclassified.*** A pollutant is designated unclassified if the data are incomplete and do not support a designation of attainment or nonattainment.
- ***Attainment.*** A pollutant is in attainment if the AAQS for that pollutant was not violated at any site in the area during a three-year period.
- ***Nonattainment.*** A pollutant is in nonattainment if there was at least one violation of an AAQS for that pollutant in the area.

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- Nonattainment/Transitional.*** A subcategory of the nonattainment designation. An area is designated nonattainment/transitional to signify that the area is close to attaining the AAQS for that pollutant.

The attainment status for the SoCAB is shown in Table 5.2-3, *Attainment Status of Criteria Air Pollutants in the South Coast Air Basin*.

**Table 5.2-3 Attainment Status of Criteria Air Pollutants in the South Coast Air Basin**

Pollutant	State	Federal
Ozone – 1-hour	Extreme Nonattainment	No Federal Standard
Ozone – 8-hour	Extreme Nonattainment	Extreme Nonattainment
PM <sub>10</sub>	Serious Nonattainment	Attainment
PM <sub>2.5</sub>	Nonattainment	Nonattainment
CO	Attainment	Attainment
NO <sub>2</sub>	Attainment	Attainment/Maintenance
SO <sub>2</sub>	Attainment	Attainment
Lead	Attainment	Nonattainment (Los Angeles County only) <sup>1</sup>
All others	Attainment/Unclassified	Attainment/Unclassified

Source: CARB 2021a.

<sup>1</sup> In 2010, the Los Angeles portion of the SoCAB was designated nonattainment for lead under the new 2008 federal AAQS as a result of large industrial emitters. Remaining areas in the SoCAB are unclassified.

### Multiple Air Toxics Exposure Study V

The Multiple Air Toxics Exposure Study (MATES) is a monitoring and evaluation study on existing ambient concentrations of TACs and the potential health risks from air toxics in the SoCAB. In April 2021, South Coast AQMD released the latest update to the MATES study, MATES V. The first MATES analysis, MATES I, began in 1986 but was limited because of the technology available at the time. Conducted in 1998, MATES II was the first MATES iteration to include a comprehensive monitoring program, an air toxics emissions inventory, and a modeling component. MATES III was conducted in 2004 to 2006, with MATES IV following in 2012 to 2013.

MATES V uses measurements taken during 2018 and 2019, with a comprehensive modeling analysis and emissions inventory based on 2018 data. The previous MATES studies quantified cancer risks based on the inhalation pathway only. MATES V includes information on the chronic noncancer risks from inhalation and non-inhalation pathways. Cancer risks and chronic noncancer risks from MATES II through IV measurements have been re-examined using current Office of Environmental Health Hazards Assessment and CalEPA risk assessment methodologies and modern statistical methods to examine the trends over time.

The MATES V study showed that cancer risk in the SoCAB decreased to 454 in a million from 997 in a million in the MATES IV study. Overall, air toxics cancer risk in the SoCAB decreased by 54 percent since 2012 when MATES IV was conducted. MATES V showed the highest risk locations near the Los Angeles International Airport and the Ports of Long Beach and Los Angeles. DPM continues to be the major contributor to air toxics cancer risk (approximately 72 percent of the total cancer risk). Goods movement and transportation corridors have the highest cancer risk. Transportation sources account for 88 percent of carcinogenic air toxics emissions,

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and the remainder is from stationary sources, which include large industrial operations such as refineries and power plants as well as smaller businesses such as gas stations and chrome-plating facilities. (South Coast AQMD 2021).

#### Existing Ambient Air Quality

Existing levels of ambient air quality and historical trends and projections in the vicinity of the proposed project site are best documented by measurements taken by the South Coast AQMD. The proposed project is located within Source Receptor Area (SRA) 21: Capistrano Valley.<sup>8</sup> The air quality monitoring station closest to the proposed project is the Mission Viejo–26081 Via Pera Monitoring Station, which is one of 31 monitoring stations South Coast AQMD operates and maintains within the SoCAB.<sup>9</sup> Data from this station includes O<sub>3</sub>, PM<sub>10</sub>, and PM<sub>2.5</sub> and is summarized in Table 5.2-4. Data for NO<sub>2</sub> is supplemented by the Anaheim–Pampas Lane Monitoring Station. The most current five years of data from these monitoring stations are included in Table 5.2-4 and show regular violations of the state and federal O<sub>3</sub>, state PM<sub>10</sub> standards, and federal PM<sub>2.5</sub> standards in the last five years.

**Table 5.2-4 Ambient Air Quality Monitoring Summary**

Pollutant/Standard	Number of Days Threshold Were Exceeded and Maximum Levels during Such Violations				
	2016	2017	2018	2019	2020
<b>Ozone (O<sub>3</sub>)</b>					
State 1-Hour $\geq 0.09$ ppm (days exceed threshold)	5	3	2	3	20
State & Federal 8-hour $\geq 0.070$ ppm (days exceed threshold)	13	25	9	11	32
Max. 1-Hour Conc. (ppm)	0.122	0.103	0.121	0.106	0.171
Max. 8-Hour Conc. (ppm)	0.093	0.083	0.088	0.087	0.122
<b>Nitrogen Dioxide (NO<sub>2</sub>)</b>					
State 1-Hour $\geq 0.18$ ppm (days exceed threshold)	0	0	0	0	0
Federal 1-Hour $\geq 0.100$ ppm (days exceed threshold)	0	0	0	0	0
Max. 1-Hour Conc. (ppb)	0.0643	0.0812	0.0660	0.0594	0.0709
<b>Coarse Particulates (PM<sub>10</sub>)</b>					
State 24-Hour $> 50$ $\mu\text{g}/\text{m}^3$ (days exceed threshold)	1	1	1	0	2
Federal 24-Hour $> 150$ $\mu\text{g}/\text{m}^3$ (days exceed threshold)	0	0	0	0	0
Max. 24-Hour Conc. ( $\mu\text{g}/\text{m}^3$ )	59.3	58.2	55.6	45.1	56.2
<b>Fine Particulates (PM<sub>2.5</sub>)</b>					
Federal 24-Hour $> 35$ $\mu\text{g}/\text{m}^3$ (days exceed threshold)	0	0	1	0	2
Max. 24-Hour Conc. ( $\mu\text{g}/\text{m}^3$ )	24.7	19.5	38.9	20.8	44.8

Source: CARB 2021b.

Notes: ppm = parts per million; ppb = parts per billion;  $\mu\text{g}/\text{m}^3$  = micrograms per cubic meter; \* = Data not available

<sup>1</sup> Data obtained from the Mission Viejo Monitoring Station for O<sub>3</sub>, PM<sub>10</sub>, and PM<sub>2.5</sub> and from the Anaheim – Pampas Lane Monitoring Station for NO<sub>2</sub>.

<sup>8</sup> Per South Coast AQMD Rule 701, an SRA is defined as follows: “A source area is that area in which contaminants are discharged and a receptor area is that area in which the contaminants accumulate and are measured. Any of the areas can be a source area, a receptor area, or both a source and receptor area”. There are 37 SRAs within the South Coast AQMD’s jurisdiction.

<sup>9</sup> Locations of the SRAs and monitoring stations are shown here: <http://www.aqmd.gov/docs/default-source/default-document-library/map-of-monitoring-areas.pdf>.

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#### Existing Emissions

The project site includes the former South County Justice Center (closed in 2008), the Orange County Library (Laguna Niguel Branch), and a county maintenance yard. These existing land uses generate GHG emissions from building transportation, area sources, energy use, water use/wastewater generation, and solid waste disposal.

#### Sensitive Receptors

Some land uses are considered more sensitive to air pollution (i.e., toxic air contaminants) than others due to the types of population groups or activities involved. Sensitive population groups include children, the elderly, the acutely ill, and the chronically ill, especially those with cardiorespiratory diseases.

Residential areas are also considered sensitive to air pollution because residents (including children and the elderly) tend to be at home for extended periods of time, resulting in sustained exposure to any pollutants present. Other sensitive receptors include retirement facilities, hospitals, and schools. Outdoor recreational land uses are considered moderately sensitive to air pollution. Although exposure periods are generally short, exercise places a high demand on respiratory functions, which can be impaired by air pollution. In addition, noticeable air pollution can detract from the enjoyment of recreation. Industrial, commercial, retail, and office areas are considered the least sensitive to air pollution. Exposure periods are relatively short and intermittent, because the majority of the workers tend to stay indoors most of the time.

The nearest off-site sensitive receptors to the project site include residences to the southwest along Via Reata and Via Corona at 82 feet, residences to the northwest along Pacific Island Drive and Highlands Avenue at 240 feet.

### 5.2.2 Thresholds of Significance

#### *Laguna Niguel CEQA Manual*

The City's CEQA Manual provides local guidelines, procedures, requirements, and thresholds of significance for the environmental review process in Laguna Niguel consistent with the CEQA Statutes (Public Resources Code Section 21000 et seq.) and State CEQA Guidelines (14 CCR Division 6, Chapter 3, Section 15000 et seq.) (Laguna Niguel 2021).

The City relies on the parameters specified in the CEQA Guidelines Appendix G Checklist for assessing impacts to air quality. Since Appendix G does not identify quantifiable thresholds, the City relies on the South Coast AQMD Air Quality Significance Thresholds and Localized Significance Thresholds (LSTs) for evaluating both short-term construction emissions and long-term operational emissions from a proposed project.

According to Appendix G of the CEQA Guidelines and the City's CEQA Manual, a project would normally have a significant effect on the environment if the project would:

AQ-1 Conflict with or obstruct implementation of the applicable air quality plan.



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- AQ-2 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.
- AQ-3 Expose sensitive receptors to substantial pollutant concentrations.
- AQ-4 Result in other emissions (such as those leading to odors) adversely affecting a substantial number of people.

#### 5.2.2.1 SOUTH COAST AIR QUALITY MANAGEMENT DISTRICT THRESHOLDS

CEQA allows the significance criteria established by the applicable air quality management or air pollution control district to be used to assess impacts of a project on air quality. South Coast AQMD has established thresholds of significance for regional air quality emissions for construction activities and project operation based on substantial evidence.

#### Regional Significance Thresholds

South Coast AQMD has adopted regional construction and operational emissions thresholds to determine a project's cumulative impact on air quality in the SoCAB, shown in Table 5.2-5, *South Coast AQMD Significance Thresholds*. The table lists thresholds that are applicable for all projects uniformly, regardless of size or scope.

**Table 5.2-5 South Coast AQMD Significance Thresholds**

Air Pollutant	Construction Phase	Operational Phase
Reactive Organic Gases (ROGs)/Volatile Organic Compounds (VOCs)	75 lbs/day	55 lbs/day
Nitrogen Oxides (NO <sub>x</sub> )	100 lbs/day	55 lbs/day
Carbon Monoxide (CO)	550 lbs/day	550 lbs/day
Sulfur Oxides (SO <sub>x</sub> )	150 lbs/day	150 lbs/day
Particulates (PM <sub>10</sub> )	150 lbs/day	150 lbs/day
Particulates (PM <sub>2.5</sub> )	55 lbs/day	55 lbs/day

Source: South Coast AQMD 2019.

Projects that exceed the regional significance threshold contribute to the nonattainment designation of the SoCAB. The attainment designations are based on the AAQS, which are set at levels of exposure that are determined to not result in adverse health effects. Exposure to fine particulate pollution and ozone causes myriad health impacts, particularly to the respiratory and cardiovascular systems:

- Increases cancer risk (PM<sub>2.5</sub>, TACs)
- Aggravates respiratory disease (O<sub>3</sub>, PM<sub>2.5</sub>)
- Increases bronchitis (O<sub>3</sub>, PM<sub>2.5</sub>)
- Causes chest discomfort, throat irritation, and increased effort to take a deep breath (O<sub>3</sub>)
- Reduces resistance to infections and increases fatigue (O<sub>3</sub>)
- Reduces lung growth in children (PM<sub>2.5</sub>)

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- Contributes to heart disease and heart attacks (PM<sub>2.5</sub>)
- Contributes to premature death (O<sub>3</sub>, PM<sub>2.5</sub>)
- Contributes to lower birth weight in newborns (PM<sub>2.5</sub>) (South Coast AQMD 2015b)

Exposure to fine particulates and ozone aggravates asthma attacks and can amplify other lung ailments such as emphysema and chronic obstructive pulmonary disease. Exposure to current levels of PM<sub>2.5</sub> contributes to an estimated 4,300 cardiopulmonary-related deaths per year in the SoCAB. In addition, University of Southern California scientists, in a landmark children's health study, found that lung growth improved as air pollution declined for children aged 11 to 15 in five communities in the SoCAB (South Coast AQMD 2015b).

South Coast AQMD is the primary agency responsible for ensuring the health and welfare of sensitive individuals exposed to elevated concentrations of air pollutants in the SoCAB and has established thresholds that would be protective of these individuals. To achieve the health-based standards established by the EPA, South Coast AQMD prepares an AQMP that details regional programs to attain the AAQS. Mass emissions in Table 5.2-5 are not correlated with concentrations of air pollutants but contribute to the cumulative air quality impacts in the SoCAB. The thresholds are based on the trigger levels for the federal New Source Review Program, which was created to ensure projects are consistent with attainment of health-based federal AAQS. Regional emissions from a single project do not by themselves trigger a regional health impact, and it is speculative to identify how many more individuals in the air basin would be affected by the health effects listed above. Projects that do not exceed the South Coast AQMD regional significance thresholds in Table 5.2-5 would not violate any air quality standards or contribute substantially to an existing or projected air quality violation.

If a project exceeds the emission thresholds in Table 5.2-5, the project's emissions would cumulatively contribute to the nonattainment status of the criteria air pollutant and would contribute to elevating health effects associated with these criteria air pollutants. However, for projects that exceed the emissions thresholds in Table 5.2-5, it is speculative to determine how exceeding the regional thresholds would affect the number of days the region is in nonattainment because mass emissions are not correlated with average concentrations of emissions in an area or how many additional individuals in the air basin would be affected by the health effects cited above.

South Coast AQMD has not provided methodology to assess the specific correlation between mass emissions generated and the effect on health in order to address the issue raised in *Sierra Club v. County of Fresno* (Friant Ranch, L.P.) (2018) 6 Cal.5th 502, Case No. S21978. Ozone concentrations are dependent upon a variety of complex factors, including the presence of sunlight and precursor pollutants, natural topography, nearby structures that cause building downwash, atmospheric stability, and wind patterns. Because of the complexities of predicting ground-level ozone concentrations in relation to the National AAQS and California AAQS, it is not possible to link health risks to the magnitude of emissions exceeding the significance thresholds to a reasonable accuracy to prove useful in understanding those risks. However, if a project in the SoCAB exceeds the regional significance thresholds, the project could contribute to an increase in health effects in the basin until the attainment standard are met in the SoCAB.

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#### CO Hotspots

Areas of vehicle congestion have the potential to create pockets of CO called hotspots. These pockets have the potential to exceed the state one-hour standard of 20 ppm or the eight-hour standard of 9 ppm. Because CO is produced in greatest quantities from vehicle combustion and does not readily disperse into the atmosphere, adherence to ambient air quality standards is typically demonstrated through an analysis of localized CO concentrations. Hotspots are typically produced at intersections, where traffic congestion is highest because vehicles queue for longer periods and are subject to reduced speeds. With the turnover of older vehicles and introduction of cleaner fuels, as well as implementation of control technology on industrial facilities, CO concentrations in the SoCAB and the state have steadily declined.

In 2007, the SoCAB was designated in attainment for CO under both the California AAQS and National AAQS. The CO hotspot analysis conducted for the attainment by South Coast AQMD did not predict a violation of CO standards at the busiest intersections in Los Angeles during the peak morning and afternoon periods.<sup>10</sup> As identified in South Coast AQMD's 2003 AQMP and the 1992 Federal Attainment Plan for Carbon Monoxide (1992 CO Plan), peak carbon monoxide concentrations in the SoCAB in years before redesignation were a result of unusual meteorological and topographical conditions and not of congestion at a particular intersection. Under existing and future vehicle emission rates, a project would have to increase traffic volumes at a single intersection by more than 44,000 vehicles per hour—or 24,000 vehicles per hour where vertical and/or horizontal air does not mix—in order to generate a significant CO impact (BAAQMD 2017).<sup>11</sup>

#### Localized Significance Thresholds

South Coast AQMD identifies LSTs as shown in Table 5.2-6, *South Coast AQMD Localized Significance Thresholds*. Emissions of NO<sub>2</sub>, CO, PM<sub>10</sub>, and PM<sub>2.5</sub> generated at a project site could expose sensitive receptors to substantial concentrations of criteria air pollutants. (Off-site mobile-source emissions are not included in the LST analysis.) A project would generate a significant impact if it generates emissions that, when added to the local background concentrations, violate the AAQS.

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<sup>10</sup> The four intersections were: Long Beach Boulevard and Imperial Highway; Wilshire Boulevard and Veteran Avenue; Sunset Boulevard and Highland Avenue; and La Cienega Boulevard and Century Boulevard. The busiest intersection evaluated (Wilshire and Veteran) had a daily traffic volume of approximately 100,000 vehicles per day with LOS E in the morning peak hour and LOS F in the evening peak hour.

<sup>11</sup> The CO hotspot analysis refers to the modeling conducted by the Bay Area Air Quality Management District for its CEQA Guidelines because it is based on newer data and considers the improvement in mobile-source CO emissions. Although meteorological conditions in the Bay Area differ from those in the Southern California region, the modeling conducted by BAAQMD demonstrates that the net increase in peak hour traffic volumes at an intersection in a single hour would need to be substantial. This finding is consistent with the CO hotspot analysis South Coast AQMD prepared as part of its 2003 AQMP to provide support in seeking CO attainment for the SoCAB. Based on the analysis prepared by South Coast AQMD, no CO hotspots were predicted for the SoCAB. As noted in the preceding footnote, the analysis included some of Los Angeles' busiest intersections, with daily traffic volumes of 100,000 or more peak hour vehicle trips operating at LOS E and F.

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**Table 5.2-6 South Coast AQMD Localized Significance Thresholds**

Air Pollutant (Relevant AAQS)	Concentration
1-Hour CO Standard (CAAQS)	20 ppm
8-Hour CO Standard (CAAQS)	9.0 ppm
1-Hour NO <sub>2</sub> Standard (CAAQS)	0.18 ppm
Annual NO <sub>2</sub> Standard (CAAQS)	0.03 ppm
24-Hour PM <sub>10</sub> Standard – Construction (South Coast AQMD) <sup>1</sup>	10.4 µg/m <sup>3</sup>
24-Hour PM <sub>2.5</sub> Standard – Construction (South Coast AQMD) <sup>1</sup>	10.4 µg/m <sup>3</sup>
24-Hour PM <sub>10</sub> Standard – Operation (South Coast AQMD) <sup>1</sup>	2.5 µg/m <sup>3</sup>
24-Hour PM <sub>2.5</sub> Standard – Operation (South Coast AQMD) <sup>1</sup>	2.5 µg/m <sup>3</sup>
Annual Average PM <sub>10</sub> Standard (South Coast AQMD) <sup>1</sup>	1.0 µg/m <sup>3</sup>

Source: South Coast AQMD 2019.

ppm – parts per million; µg/m<sup>3</sup> – micrograms per cubic meter

<sup>1</sup> Threshold is based on South Coast AQMD Rule 403. Since the SoCAB is in nonattainment for PM<sub>10</sub> and PM<sub>2.5</sub>, the threshold is established as an allowable change in concentration. Therefore, background concentration is irrelevant.

To assist lead agencies, South Coast AQMD developed screening-level LSTs to back-calculate the mass amount (pounds per day) of emissions generated on-site that would trigger the levels shown in Table 5.2-6 for projects under five acres. These “screening-level” LST tables are the localized significance thresholds for all projects of five acres and less and are based on emissions over an eight-hour period; however, they can be used as screening criteria for larger projects to determine whether or not dispersion modeling may be required.

The screening-level LSTs in SRA 21 are shown in Table 5.2-7, *South Coast AQMD Screening-Level Localized Significance Thresholds*. For construction activities, LSTs are based on the acreage disturbed per day and on equipment use up to the project site acreage (South Coast AQMD 2011). These LSTs reflect the thresholds for sensitive receptors within 82 feet (25 meters).

**Table 5.2-7 South Coast AQMD Screening-Level Localized Significance Thresholds**

Acreage Disturbed	Threshold (lbs/day)			
	Nitrogen Oxides (NO <sub>x</sub> )	Carbon Monoxide (CO)	Coarse Particulates (PM <sub>10</sub> )	Fine Particulates (PM <sub>2.5</sub> )
≤1.00 Acre Disturbed Per Day	91	696	4.00	3.00
1.50 Acres Disturbed Per Day	111	844	5.00	3.50
≥5.00 Acres Disturbed Per Day	197	1,804	11.99	8.00

Source: South Coast AQMD 2008b, 2011. Based on receptors in SRA 21.

<sup>1</sup> LSTs are based on sensitive receptors within 82 feet (25 meters).

The City’s CEQA Manual generally requires emissions to be quantified for commercial and residential projects that require demolition, excavation, or grading that encompasses an area of more than 20,000 square feet. The Manual states that projects requiring an air quality analysis must evaluate both short-term construction emissions and long-term operational emissions. The Manual defers to South Coast AQMD significance thresholds for construction and operation. If emissions exceed South Coast AQMD thresholds, mitigation must be applied, and a health risk assessment must be considered. If emissions exceed South Coast AQMD LST thresholds after mitigation, air dispersion modeling is required.

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**Health Risk**

Whenever a project would require use of chemical compounds that have been identified in South Coast AQMD Rule 1401; placed on CARB’s air toxics list pursuant to AB 1807; or placed on the EPA’s National Emissions Standards for Hazardous Air Pollutants, a health risk assessment is required by the South Coast AQMD. Table 5.2-8, *South Coast AQMD Toxic Air Contaminants Incremental Risk Thresholds*, lists the TAC incremental risk thresholds for operation of a project. The environmental document must analyze the impacts of environmental hazards on future users when a proposed project exacerbates an existing environmental hazard or condition (*California Building Industry Association v. Bay Area Air Quality Management District* (2015) 62 Cal.4th 369 (Case No. S213478)). Residential, commercial, and office uses do not use substantial quantities of TACs and typically do not exacerbate existing hazards, so these thresholds are typically applied to new industrial projects.

The City’s CEQA Manual states “For more complicated development projects, where the LST tables are not appropriate or emissions exceed LST screening levels, dispersion modeling and a health risk assessment may be required.” Since LST tables are appropriate for the proposed project and the project does not exceed LST thresholds, a health risk assessment is not required.

**Table 5.2-8 South Coast AQMD Toxic Air Contaminants Incremental Risk Thresholds**

Maximum Incremental Cancer Risk	≥ 10 in 1 million
Cancer Burden (in areas ≥ 1 in 1 million)	> 0.5 excess cancer cases
Hazard Index (project increment)	≥ 1.0

Source: South Coast AQMD 2019.

**5.2.3 Plans, Programs, and Policies**

Plans, programs, and policies (PPP) include applicable regulatory requirements and conditions of approval for air quality impacts.

PPP AIR-1 New buildings are required to achieve the current California Building Energy and Efficiency Standards (Title 24, Part 6) and California Green Building Standards Code (CALGreen) (Title 24, Part 11). The 2019 Building and Energy Efficiency Standards became effective January 1, 2020. The Building Energy and Efficiency Standards and CALGreen are updated tri-annually with a goal to achieve zero net energy for residential buildings by 2020 and nonresidential buildings by 2030.

PPP AIR-2 New buildings are required to adhere to the California Green Building Standards Code (CALGreen) requirement to provide bicycle parking for new non-residential buildings, or meet local bicycle parking ordinances, whichever is stricter (CALGreen Sections 5.106.4.1, 14.106.4.1, and 5.106.4.1.2).

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- PPP AIR-3 Construction activities will be conducted in compliance with California Code of Regulations Title 13 Section 2499, which requires that nonessential idling of construction equipment is restricted to five minutes or less.
- PPP AIR-4 Construction activities will be conducted in compliance with any applicable South Coast Air Quality Management District rules and regulations, including but not limited to:
- **Rule 403**, Fugitive Dust, for controlling fugitive dust and avoiding nuisance.
  - **Rule 402**, Nuisance, which states that a project shall not “discharge from any source whatsoever such quantities of air contaminants or other material which cause injury, detriment, nuisance, or annoyance to any considerable number of persons or to the public, or which endanger the comfort, repose, health or safety of any such persons or the public, or which cause, or have a natural tendency to cause, injury or damage to business or property.”
  - **Rule 1113**, which limits the volatile organic compound content of architectural coatings.

### 5.2.4 Environmental Impacts

#### 5.2.4.1 METHODOLOGY

This air quality evaluation was prepared in accordance with the requirements of CEQA and the City’s CEQA Manual to determine if significant air quality impacts are likely to occur in conjunction with future development that would be accommodated by the proposed project. South Coast AQMD’s *CEQA Air Quality Handbook* (Handbook) and updates on its website are intended to provide local governments with guidance for analyzing and mitigating project-specific air quality impacts. The Handbook provides standards, methodologies, and procedures for conducting air quality analyses in EIRs, and they were used in this analysis.

Air pollutant emissions are calculated using the California Emissions Estimator Model (CalEEMod), version 2020.4. CalEEMod compiles an emissions inventory of construction (fugitive dust, off-gas emissions, on-road emissions, and off-road emissions), area sources, indirect emissions from energy use, mobile sources, indirect emissions from waste disposal (annual only), and indirect emissions from water/wastewater (annual only). Construction criteria air pollutant emissions modeling is included in Appendix C of this Draft EIR. The calculated emissions of the project are compared to thresholds of significance for individual projects using the City’s CEQA Manual, which relies on South Coast AQMD standards. Following is a summary of the assumptions used for the proposed project analysis.

#### Construction Phase

Construction would entail demolition of existing asphalt, site preparation, grading, off-site hauling of demolition debris and earthwork material, construction of the proposed structures and buildings, architectural coating, and asphalt paving on 23.26 acres of the approximately 24.38-acre project site. Implementation of the project would demolish 104,410 square feet of buildings in total. Demolition of non-crushed material would

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generate up to 20 truck trips per day for up to 8.5 days. It is anticipated that the debris would be dumped at the Prima Deschecha Landfill in San Juan Capistrano.

Construction of the proposed project would require 83,000 cubic yards of export for Site Preparation and Grading. This would result in a total of 5,929 truck roundtrips with 14 cubic yards of carrying capacity. 51 daily truck roundtrips would be necessary, assuming 116 days of hauling. In addition, construction would approximately 10,000 cubic yards of imported fill and 15,000 cubic yards of exported fill for Fine Grading. This would result in a total of 1,786 truck roundtrips with 14 cubic yard truck carrying capacity. Approximately 27 daily truck roundtrips would be necessary, assuming 66 days of hauling. It is anticipated that export soil would be hauled to the Olinda Alpha Landfill in Brea.

New construction on the project site would include a total of 957,606 square feet, including parking structures and garages. The project would include 300,000 square feet of new asphalt for surface parking and driveways, 26,000 square feet of new hardscape (e.g., concrete curb, walkways), and 20,000 square feet of new landscaping. No pile driving would be required during construction of the project. Painting would include 95% of the buildings' interior and 80% of the buildings' exterior.

Construction is expected to occur for 36 months from September 2023 to September 2026. The air quality and GHG models assume construction would occur on Monday through Friday from 7:00 AM to 4:00 PM for purposes of analysis (see Section 3.3 in Chapter 3, *Project Description*, for construction hour limitations). Construction activity phases that were modeled include site abatement, demolition, site preparation grading/earthwork, utilities, fine grading, street paving, construction of buildings, architectural coatings, and landscaping. Construction air pollutant emissions are based on the preliminary information provided by the developer in Table 3-2, *Construction Equipment*.

### Operational Phase

- **Transportation.** The primary source of mobile criteria air pollutant emissions is tailpipe exhaust emissions from the combustion of fuel (i.e., gasoline and diesel). Additionally, for criteria air pollutants, brake and tire wear and fugitive dust created from vehicles traveling on roadways also generate particulate matter. The average daily trip generation for weekday and Saturday trips was provided by LLG (see Appendix L). Saturday trip generation was used as a proxy for Sunday trips in order to provide a conservative estimate of project emissions. Project-related on-road criteria air pollutant emissions are based on year 2026 emission rates for the project buildout year.
- **Area Sources.** Area source emissions from use of consumer cleaning products, landscaping equipment, and VOC emissions from paints are based on CalEEMod default values and the square footage of the proposed buildings and surface parking lot areas.
- **Energy.** Criteria air pollutant emissions from energy use (natural gas used for cooking, heating, etc.) are based on the CalEEMod defaults for natural gas usage for nonresidential and residential land uses, which provide conservative estimates for building energy use. Criteria air pollutant emissions from energy use are associated with natural gas used for heating.

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#### 5.2.4.2 IMPACT ANALYSIS

The following impact analysis addresses thresholds of significance for which the Notice of Preparation disclosed potentially significant impacts (see Appendix A). The applicable thresholds are identified in brackets after the impact statement.

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**Impact 5.2-1: The proposed project is consistent with the applicable air quality management plan. [Threshold AQ-1]**

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A consistency determination with the AQMP plays an important role in local agency project review by linking local planning and individual projects to the AQMP. It fulfills the CEQA goal of informing decision makers of the environmental efforts of the project under consideration early enough to ensure that air quality concerns are fully addressed. It also provides the local agency with ongoing information as to whether they are contributing to the clean air goals in the AQMP.

The regional emissions inventory for the SoCAB is compiled by South Coast AQMD and SCAG. Regional population, housing, and employment projections developed by SCAG are based, in part, on cities' general plan land use designations. These projections form the foundation for the emissions inventory of the AQMP. These demographic trends are incorporated into SCAG's regional transportation plan/sustainable communities strategy to determine priority transportation projects and vehicle miles traveled in the SCAG region. The AQMP strategy is based on projections from local general plans.

Changes in population, housing, or employment growth projections have the potential to affect SCAG's demographic projections and therefore the assumptions in South Coast AQMD's AQMP. The project would result in the construction of 275 residential units and approximately 174,851 square feet of commercial, retail, and recreational uses, resulting in up to 412 employees. As discussed in Section 5.12, *Population and Housing*, the proposed project's population and employment growth would be within SCAG's forecast growth projections for the City. Additionally, the project would address the need for additional housing to accommodate population growth in the City.

Finally, the long-term emissions generated by the proposed project would not produce criteria air pollutants that exceed the South Coast AQMD significance thresholds for project operations (see Impact 5.2-3). South Coast AQMD's significance thresholds identify whether a project has the potential to cumulatively contribute to the SoCAB's nonattainment designations. Because the project would not exceed the South Coast AQMD's regional significance thresholds and growth is consistent with regional growth projections, the project would not interfere with South Coast AQMD's ability to achieve the long-term air quality goals identified in the AQMP. Therefore, the proposed project would be consistent with the AQMP.

***Level of Significance Before Mitigation:*** Less than significant.



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**Impact 5.2-2: Construction activities associated with the proposed project would generate short-term emissions in exceedance of South Coast AQMD's threshold criteria. [Thresholds AQ-2 and AQ-3]**

Construction activities produce combustion emissions from various sources, such as on-site heavy-duty construction vehicles, vehicles hauling materials to and from the site, and motor vehicles transporting the construction crew. Construction of the proposed project would generate criteria air pollutants associated with construction equipment exhaust and fugitive dust from site abatement, demolition, site preparation, grading and trenching, building construction, architectural coating, pavement of asphalt and other surfaces, and finishing and landscaping of the site. Air pollutant emissions from construction activities on-site would vary daily as construction activity levels change. An estimate of maximum daily construction emissions for the proposed project is provided in Table 5.2-9, *Maximum Daily Regional Construction Emissions*.

**Table 5.2-9 Maximum Daily Regional Construction Emissions**

Construction Phase	Pollutants (lb/day) <sup>1,2</sup>					
	VOC	NO <sub>x</sub>	CO	SO <sub>2</sub>	PM <sub>10</sub>	PM <sub>2.5</sub>
<b>Year 2023</b>						
Site Abatement	<1	4	5	<1	<1	<1
Demolition 2023	4	32	31	<1	2	1
Demolition 2023 and Debris Haul 2023 <sup>3</sup>	4	32	31	<1	2	1
Demolition and Debris Haul (2023) <sup>3</sup> , Site Preparation (2023), Rough Grading (2023)	12	<b>108</b>	97	<1	18	9
<b>Year 2024</b>						
Demolition (2024), Site Preparation (2024), Rough Grading (2024)	11	99	95	<1	17	9
Site Preparation (2024) and Rough Grading (2024)	7	72	71	<1	14	8
Site Preparation (2024), Rough Grading (2024), and Utilities Trenching	7	72	71	<1	14	8
Site Preparation (2024), Rough Grading (2024), Utilities Trenching, and Building Construction	11	91	103	<1	23	10
Site Preparation and Soil Haul (2024), Rough Grading and Soil Haul (2024), Utilities Trenching, and Building Construction <sup>4</sup>	12	<b>156</b>	123	1	33	13
Site Preparation and Soil Haul (2024), Rough Grading and Soil Haul (2024), Utilities Trenching, and Building Construction, Fine Grading and Soil Haul, and Paving <sup>4</sup>	13	<b>184</b>	144	1	36	15
Building Construction (2024), Fine Grading and Soil Haul, Paving	6	55	64	<1	13	4
Building Construction (2024), Fine Grading, and Paving	5	37	58	<1	10	4
Building Construction (2024)	4	23	37	<1	9	3
<b>Year 2025</b>						
Building Construction (2025)	3	22	36	<1	9	3
Building Construction (2025), Architectural Coating (2025), Landscaping (2025)	17	23	41	<1	10	3

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**Table 5.2-9 Maximum Daily Regional Construction Emissions**

Construction Phase	Pollutants (lb/day) <sup>1,2</sup>					
	VOC	NO <sub>x</sub>	CO	SO <sub>2</sub>	PM <sub>10</sub>	PM <sub>2.5</sub>
<b>Year 2026</b>						
Building Construction (2026), Architectural Coating (2026), Landscaping (2026)	17	23	40	<1	10	3
Landscaping (2026)	<1	1	2	<1	<1	<1
<b>Maximum Daily Construction Emissions</b>						
Maximum Daily Emissions	17	<b>184</b>	144	1	36	15
South Coast AQMD Regional Construction Threshold	75	100	550	150	150	55
<b>Significant?</b>	No	<b>Yes</b>	No	No	No	No

Source: CalEEMod Version 2020.4.

Emissions totals may not equal 100 percent due to rounding.

<sup>1</sup> Based on the preliminary information provided by the Applicant. Where specific information regarding project-related construction activities was not available, construction assumptions were based on CalEEMod defaults, which are based on construction surveys conducted by South Coast AQMD of construction equipment.

<sup>2</sup> Includes implementation of fugitive dust control measures required by South Coast AQMD under Rule 403, including watering disturbed areas a minimum of two times per day, reducing speed limit to 15 miles per hour on unpaved surfaces, replacing ground cover quickly, and street sweeping with Rule 1186-compliant sweepers.

<sup>3</sup> Demolition debris haul would move 2,700 tons of debris to the Prima Deschecha Landfill.

<sup>4</sup> Soil hauling would involve exporting 98,000 cubic yards of soil off-site to the Brea Olinda Landfill during the site preparation, rough grading, and fine grading phases. Soil hauling during the fine grading phase would also involve import of 10,000 cubic yards of soil into the project site.

The SoCAB is designated nonattainment for O<sub>3</sub> and PM<sub>2.5</sub> under the California and National AAQS, nonattainment for PM<sub>10</sub> under the California AAQS,<sup>12</sup> and nonattainment for lead (Los Angeles County only) under the National AAQS. According to South Coast AQMD methodology, any project that does not exceed or can be mitigated to less than the daily threshold values would not add significantly to a cumulative impact (South Coast AQMD 1993). As shown in Table 5.2-10, the maximum daily emissions for CO, SO<sub>2</sub>, PM<sub>10</sub>, and PM<sub>2.5</sub> from construction-related activities would be less than their respective South Coast AQMD regional significance threshold values. However, the construction-related NO<sub>x</sub> emissions generated from construction phases that overlap with site preparation and rough grading, particularly those that involve demolition debris export as well as soil import and export to and from the site, would exceed the South Coast AQMD regional significance threshold for NO<sub>x</sub>. Consequently, construction of the proposed project could potentially contribute to the nonattainment designations of the SoCAB in the absence of mitigation.

Mitigation Measure AQ-1 would require use of demolition, site preparation, grading, and utilities trenching equipment that meets the EPA's Tier 4 (Final) emissions standards for construction activities, thereby requiring newer, cleaner construction equipment. Furthermore, Mitigation Measure AQ-2 would prohibit the overlap of demolition activities with site preparation and grading activities and would limit daily rough grading soil hauling to ensure peak construction emissions would not exceed South Coast AQMD thresholds. As shown in Table 5.2-14, *Maximum Daily Regional Construction Emissions with Mitigation Incorporated*, with the implementation of Mitigation Measures AQ-1 and AQ-2, construction-related NO<sub>x</sub> emissions would be reduced to below the

<sup>12</sup> Portions of the SoCAB along SR-60 in Los Angeles, Riverside, and San Bernardino counties are proposed nonattainment for NO<sub>2</sub> under the California AAQS.

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South Coast AQMD threshold for NO<sub>x</sub>. Project and cumulative construction-related air quality impacts under Impact 5.2-2 would be reduced to less than significant.

*Level of Significance Before Mitigation:* Potentially significant.

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**Impact 5.2-3: Long-term operation of the project would not generate additional vehicle trips and associated emissions in exceedance of South Coast AQMD's threshold criteria. [Thresholds AQ-2 and AQ-3]**

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### Regional Operational Emissions

Buildout of the proposed project would generate an increase in criteria air pollutant emissions from transportation (i.e., vehicle trips), area sources (e.g., landscaping equipment, architectural coating), and energy (i.e., natural gas used for heating and cooking). As shown in Table 5.2-10, *Net Increase in Regional Operation Emissions*, the net change in maximum daily emissions from operation-related activities would be less than their respective South Coast AQMD regional significance threshold values. Projects that do not exceed the South Coast AQMD regional significance thresholds would not result in an incremental increase in health impacts in the SoCAB from project-related increases in criteria air pollutants. Therefore, impacts to the regional air quality associated with operation of the project would be less than significant.

**Table 5.2-10 Net Increase in Regional Operation Emissions**

Source	Maximum Daily Emissions (lbs/Day) <sup>1</sup>					
	VOC	NO <sub>x</sub>	CO	SO <sub>2</sub>	PM <sub>10</sub>	PM <sub>2.5</sub>
Area	14	<1	23	<1	<1	<1
Energy	<1	3	2	<1	<1	<1
Mobile <sup>2</sup>	23	22	217	<1	59	16
<b>Total</b>	<b>37</b>	<b>25</b>	<b>242</b>	<b>1</b>	<b>59</b>	<b>16</b>
<b>South Coast AQMD Regional Operational Threshold</b>	<b>55</b>	<b>55</b>	<b>550</b>	<b>150</b>	<b>150</b>	<b>550</b>
<b>Exceeds Threshold?</b>	No	No	No	No	No	No

Source: CalEEMod Version 2020.4. Highest winter or summer emissions are reported.

Notes: lbs: Pounds.

<sup>1</sup> Based on information provided by the Applicant.

<sup>2</sup> The project involves reconstruction of the 15,000 square foot Orange County Library (Laguna Niguel Branch) on the project site. Trips generated from the existing library are excluded from the project trip generation as they are part of the baseline conditions on-site (see Appendix L).

### Overlap of Construction and Operational Phase

The South Coast AQMD does not have a significance threshold for construction/operation overlap; therefore, this analysis is included for informational purposes only. Table 5.2-11, *Potential Overlap of Construction and Operational Activities*, shows the maximum daily emissions during an approximately 12-month period where project-related construction and operation activities overlap. Based on the development timeline for the proposed project, it is anticipated that occupancy of the proposed commercial uses would occur in September 2025, and buildout of the residential buildings would not be complete until September 2026. For purposes of

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this discussion, the maximum daily combined emissions shown in the table represent a conservative scenario because the maximum daily operational emissions are based on full buildout of the project. In reality, if project-related construction and operation activities were to overlap, only a portion of the proposed project would be operational while the rest is constructed. The construction phases that would overlap with operation of the proposed project would be limited to vertical building construction. Demolition, site preparation, grading, and export, which would generate the highest construction emissions overall, would not occur during project operation.

As shown in Table 5.2-11, the potential overlap of construction and operation would not exceed the South Coast AQMD construction or operational thresholds.

**Table 5.2-11 Potential Overlap of Construction and Operational Activities**

Source	Maximum Daily Emissions (lbs/day) <sup>1,2</sup>					
	VOC	NO <sub>x</sub>	CO	SO <sub>2</sub>	PM <sub>10</sub>	PM <sub>2.5</sub>
Year 2025 Construction Peak Emissions	17	23	41	<1	10	3
Year 2026 Construction Peak Emissions	17	23	40	<1	10	3
Year 2025 Net Change in Operational Emissions	37	25	242	1	59	16
<b>Maximum Daily Combined Emissions</b>						
Year 2025	54	48	283	1	69	19
Year 2026	54	48	282	1	69	19
<b>South Coast AQMD Regional Construction Threshold</b>	<b>75</b>	<b>100</b>	<b>550</b>	<b>150</b>	<b>150</b>	<b>55</b>
<b>South Coast AQMD Regional Threshold</b>	<b>55</b>	<b>55</b>	<b>550</b>	<b>150</b>	<b>150</b>	<b>550</b>
<b>Exceeds Construction/Operational Threshold?</b>	No	No	No	No	No	No

Source: CalEEMod Version 2020.4. Highest winter or summer emissions are reported.

Notes: lbs: Pounds.

<sup>1</sup> Based on information provided by the Applicant.

<sup>2</sup> The maximum daily operational emissions are based on full buildout. Therefore, the maximum daily combined emissions represent a conservative scenario because in practice, only a proportion of the allowable land use space would be operating while the rest of the proposed project is constructed and fully built out.

**Level of Significance Before Mitigation:** Less than significant.

#### **Impact 5.2-4: Construction activities associated with the proposed project would expose sensitive receptors to substantial pollutant concentrations. [Threshold AQ-3]**

This impact analysis describes changes in localized impacts from short-term construction activities. The proposed project could expose sensitive receptors to elevated pollutant concentrations during construction activities. Unlike the construction emissions shown in the regional emissions analysis in Table 5.2-10, described in pounds per day, localized concentrations refer to an amount of pollutant in a volume of air (ppm or µg/m<sup>3</sup>) and can be correlated to potential health effects.

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**Construction-Phase LSTs**

Screening-level LSTs (pounds per day) are the amount of project-related mass emissions at which localized concentrations (ppm or  $\mu\text{g}/\text{m}^3$ ) could exceed the AAQS for criteria air pollutants for which the SoCAB is designated nonattainment. The screening-level LSTs are based on the project site size and distance to the nearest sensitive receptor and are based on the California AAQS, which are the most stringent AAQS, established to protect sensitive receptors most susceptible to respiratory distress. Table 5.2-12, *Construction Emissions Compared to the Screening-Level LSTs*, shows the maximum daily construction emissions (pounds per day) generated during on-site construction activities at the project site compared with the South Coast AQMD’s screening-level LSTs thresholds. On-site emissions include fugitive dust emissions and exhaust emissions associated with operation of off-road construction equipment in addition to fugitive dust from the movement of dirt. As shown in the table, the maximum daily  $\text{NO}_x$ , CO,  $\text{PM}_{10}$ , and  $\text{PM}_{2.5}$  construction emissions from on-site construction-related activities would be less than their respective South Coast AQMD screening-level LSTs, except for  $\text{PM}_{10}$  and  $\text{PM}_{2.5}$ , for all construction phases that include site preparation and rough grading. Consequently, construction activities would potentially expose sensitive receptors to substantial concentrations of air pollutants.

**Table 5.2-12 Construction Emissions Compared to the Screening-Level LSTs**

	Pollutants(lbs/day) <sup>1</sup>			
	NO <sub>x</sub>	CO	PM <sub>10</sub> <sup>2</sup>	PM <sub>2.5</sub> <sup>2</sup>
<b>South Coast AQMD ≤1.00 -acre LST</b>	<b>91</b>	<b>696</b>	<b>4.00</b>	<b>3.00</b>
Site Abatement	3	5	0.17	0.15
Demolition (2023)	32	30	1.30	1.22
Demolition (2023) and Demolition Haul (2023)	32	30	1.91	1.31
Landscaping	1	2	0.05	0.05
<b>Exceeds LST?</b>	No	No	No	No
<b>South Coast AQMD 1.31-Acre LSTs</b>	<b>103</b>	<b>789</b>	<b>4.62</b>	<b>3.31</b>
Building Construction (2024)	13	16	0.61	0.57
Building Construction (2025)	12	16	0.53	0.49
Building Construction (2025), Architectural Coating (2025), Landscaping (2025)	14	18	0.58	0.55
Building Construction (2026), Architectural Coating (2026), Landscaping (2026)	14	18	0.58	0.55
<b>Exceeds LST?</b>	No	No	No	No
<b>South Coast AQMD 1.50-Acre LSTs</b>	<b>111</b>	<b>844</b>	<b>5.00</b>	<b>3.50</b>
Building Construction (2024), Fine Grading and Soil Haul, Paving	27	36	1.57	1.25
Building Construction (2024), Fine Grading, and Paving	27	36	1.55	1.24
<b>Exceeds LST?</b>	No	No	No	No
<b>South Coast AQMD 5.00-Acre LSTs</b>	<b>197</b>	<b>1,804</b>	<b>11.99</b>	<b>8.00</b>
Demolition and Debris Haul (2023), Site Preparation (2023), Rough Grading (2023)	107	95	16.77	9.00
Demolition (2024), Site Preparation (2024), Rough Grading (2024)	99	93	15.80	8.57

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**Table 5.2-12 Construction Emissions Compared to the Screening-Level LSTs**

	Pollutants(lbs/day) <sup>1</sup>			
	NO <sub>x</sub>	CO	PM <sub>10</sub> <sup>2</sup>	PM <sub>2.5</sub> <sup>2</sup>
Site Preparation (2024) and Rough Grading (2024)	72	70	13.88	7.54
Site Preparation (2024), Rough Grading (2024), and Utilities Trenching	72	70	13.88	7.54
Site Preparation (2024), Rough Grading (2024), Utilities Trenching, and Building Construction	81	80	14.32	7.96
Site Preparation (2024), Rough Grading and Soil Haul (2024), Utilities Trenching, and Building Construction	81	80	14.39	7.97
Site Preparation and Soil Haul (2024), Rough Grading and Soil Haul (2024), Utilities Trenching, and Building Construction	81	80	14.42	7.97
Site Preparation and Soil Haul (2024), Rough Grading and Soil Haul (2024), Utilities Trenching, and Building Construction, Fine Grading and Soil Haul, and Paving	91	95	14.91	8.40
<b>Exceeds LST?</b>	No	No	Yes	Yes

Source: CalEEMod Version 2020.4., and South Coast AQMD 2008b and 2011.

Notes: In accordance with South Coast AQMD methodology, only on-site stationary sources and mobile equipment occurring on the project site are included in the analysis. LSTs are based on receptors within 82 feet (25 meters) of the project site in Source Receptor Area (SRA) 21.

<sup>1</sup> Based on preliminary information provided or verified by the City. Where specific information regarding project-related construction activities or processes was not available, construction assumptions were based on CalEEMod defaults, which are based on construction surveys conducted by the South Coast AQMD. Because the most current data shows a reduction in building area from the preliminary data, the model outputs are conservative.

<sup>2</sup> Includes implementation of fugitive dust control measures required by South Coast AQMD under Rule 403, including watering disturbed areas a minimum of two times per day, reducing speed limit to 15 miles per hour on unpaved surfaces, replacing ground cover quickly, and street sweeping with Rule 1186-compliant sweepers.

### Construction Health Risk

The Office of Environmental Health Hazards Assessment issued updated guidance for the preparation of health risk assessments in March 2015 (OEHHA 2015). It has also developed a cancer risk factor and noncancer chronic reference exposure level for DPM based on continuous exposure over a 30-year time frame. No short-term acute exposure levels have been developed for DPM. South Coast AQMD currently does not require the evaluation of long-term excess cancer risk or chronic health impacts for a short-term project. Emissions from construction equipment primarily consist of DPM. The project is anticipated to be developed in approximately 36 months, which would limit the exposure of on- and off-site receptors. Based on guidance from South Coast AQMD, construction risk is extrapolated based on the LST analysis. Because all construction phases that include site preparation and rough grading exceeded their respective PM<sub>2.5</sub> and PM<sub>10</sub> LSTs, project-related construction health impacts would be potentially significant.

**Level of Significance Before Mitigation:** Potentially significant.

**Impact 5.2-5: Operation of the proposed project would not expose sensitive receptors to substantial pollutant concentrations. [Threshold AQ-3]**

This impact analysis describes changes in localized impacts from long-term operation of the project. The proposed project could expose sensitive receptors to elevated pollutant concentrations during operational

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activities if it would cause or contribute significantly to elevated levels. Unlike the construction emissions shown in the regional emissions analysis in Table 5.2-10, which is described in pounds per day, localized concentrations refer to an amount of pollutant in a volume of air (ppm or  $\mu\text{g}/\text{m}^3$ ) and can be correlated to potential health effects.

#### Operational Phase LSTs

Operation of the proposed project would not generate substantial quantities of emissions from on-site, stationary sources. Land uses that have the potential to generate substantial stationary sources of emissions require a permit from South Coast AQMD, such as chemical processing or warehousing operations where substantial truck idling could occur on-site. The proposed project is not an industrial project that has the potential to emit substantial sources of stationary emissions. While operation of the proposed project would result in the use of standard on-site mechanical equipment such as heating, ventilation, and air conditioning units and occasional use of landscaping equipment for project site maintenance, air pollutant emissions from those uses would not be substantial. Therefore, net localized air quality impacts from project-related operations would be less than significant.

#### Carbon Monoxide Hotspots

Areas of vehicle congestion have the potential to create pockets of CO called hotspots. These pockets have the potential to exceed the state one-hour standard of 20 ppm or the eight-hour standard of 9.0 ppm. Because CO is produced in greatest quantities from vehicle combustion and does not readily disperse into the atmosphere, adherence to AAQS is typically demonstrated through an analysis of localized CO concentrations. Hot spots are typically produced at intersections, where traffic congestion is highest because vehicles queue for longer periods and are subject to reduced speeds. The SoCAB has been designated in attainment of both the National and California AAQS for CO. Under existing and future vehicle emission rates, a project would have to increase traffic volumes at a single intersection by more than 44,000 vehicles per hour—or 24,000 vehicles per hour where vertical and/or horizontal mixing is substantially limited—in order to generate a significant CO impact (BAAQMD 2017). The proposed project would generate a net increase of 490 PM peak-hour trips on weekdays and 939 midday peak hour trips on weekends (LLG 2021), which is substantially below the incremental increase in peak-hour vehicle trips needed to generate a significant CO impact. Implementation of the project would not have the potential to substantially increase CO hotspots at intersections in the vicinity of the project site.

*Level of Significance Before Mitigation:* Less than significant.

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**Impact 5.2-6: The proposed project would not result in other emissions (such as those leading to odors) adversely affecting a substantial number of people. [Threshold AQ-4]**

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The threshold for odor is if a project creates an odor nuisance pursuant to South Coast AQMD Rule 402, Nuisance, which states:

A person shall not discharge from any source whatsoever such quantities of air contaminants or other material which cause injury, detriment, nuisance, or annoyance to any considerable number of persons

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or to the public, or which endanger the comfort, repose, health or safety of any such persons or the public, or which cause, or have a natural tendency to cause injury or damage to business or property. The provisions of this rule shall not apply to odors emanating from agricultural operations necessary for the growing of crops or the raising of fowl or animals.

The type of facilities that are considered to have objectionable odors include wastewater treatments plants, compost facilities, landfills, solid waste transfer stations, fiberglass manufacturing facilities, paint/coating operations (e.g., auto body shops), dairy farms, petroleum refineries, asphalt batch plants, chemical manufacturing, and food manufacturing facilities.

The proposed project would develop and operate retail (including restaurants) and residential structures, which would not fall within the types of uses that are associated with foul odors that constitute a public nuisance. During construction activities, construction equipment exhaust and application of asphalt and architectural coatings would temporarily generate odors. However, construction-related odor emissions would be temporary and intermittent and would not affect a significant number of people.

*Level of Significance before Mitigation:* Less than significant.

### 5.2.5 Cumulative Impacts

In accordance with South Coast AQMD's methodology, any project that produces a significant project-level regional air quality impact in an area that is in nonattainment contributes to the cumulative impact. Consistent with the methodology, projects that do not exceed the regional significance thresholds would not result in significant cumulative impacts. Cumulative projects in the local area include new development and general growth in the proposed project area. The greatest sources of emissions in the SoCAB are mobile sources. Due to the extent of the area potentially impacted by cumulative emissions (i.e., the SoCAB), South Coast AQMD considers a project cumulatively significant when project-related emissions exceed the South Coast AQMD regional emissions thresholds shown in Table 5.2-6 (South Coast AQMD 1993).

#### 5.2.5.1 CONSTRUCTION

The SoCAB is designated nonattainment for O<sub>3</sub> and PM<sub>2.5</sub> under the California and National AAQS and nonattainment for PM<sub>10</sub> and lead (Los Angeles County only) under the National AAQS. Construction of cumulative projects will further degrade the regional and local air quality. As shown in Table 5.2-9, project-related construction activities would generate short-term emissions for NO<sub>x</sub> that would exceed the South Coast AQMD regional emissions thresholds. Furthermore, construction of the proposed project would exceed localized significance thresholds for PM<sub>10</sub> and PM<sub>2.5</sub>. Because regional construction emissions would potentially exceed the South Coast AQMD's significance thresholds during construction in the absence of mitigation, the proposed project's contribution to cumulative air quality impacts would potentially be cumulatively considerable without mitigation.

#### 5.2.5.2 OPERATION

For operational air quality emissions, any project that does not exceed or can be mitigated to less than the daily regional threshold values is not considered by South Coast AQMD to be a substantial source of air pollution



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and does not add significantly to a cumulative impact. Operation of the proposed project, as shown in Table 5.2-11, would not result in emissions in excess of the South Coast AQMD regional emissions thresholds. In addition, no significant impacts were identified regarding CO hotspots or generation of foul odors during operation of the proposed project. Therefore, the proposed project's contribution to cumulative air quality impacts would not be cumulatively considerable.

### 5.2.6 Level of Significance Before Mitigation

Upon implementation of regulatory requirements and standard conditions of approval, some impacts would be less than significant: 5.2-1, 5.2-3, 5.2-5, and 5.2-6.

Without mitigation, these impacts would be **potentially significant**:

- **Impact 5.2-2** Construction activities associated with the proposed project could result in a cumulatively considerable net increase of NO<sub>x</sub>.
- **Impact 5.2-4** Construction activities associated with the proposed project could result in a cumulatively considerable net increase in PM<sub>10</sub> and PM<sub>2.5</sub> that would exceed localized significance thresholds. In addition, because all construction phases that include site preparation and rough grading exceeded their respective PM<sub>2.5</sub> and PM<sub>10</sub> LSTs, project-related construction health impacts would also be cumulatively considerable.

### 5.2.7 Mitigation Measures

#### Impact 5.2-2

AQ-1 The construction contractor(s) shall, at minimum, use equipment that meets the United States Environmental Protection Agency's (EPA) Tier 4 (Final) emissions standards for off-road diesel-powered construction equipment with more than 50 horsepower for site preparation and rough grading/earthwork, utilities trenching, and building construction activities that overlap with site preparation and rough grading activities. Any emissions control device used by the contractor shall achieve emissions reductions that are no less than what could be achieved by Tier 4 Final emissions standards for a similarly sized engine, as defined by the California Air Resources Board's regulations. Prior to construction, the project engineer shall ensure that all plans clearly show the requirement for EPA Tier 4 Final emissions standards for construction equipment over 50 horsepower for the specific activities stated above. During construction, the construction contractor shall maintain a list of all operating equipment associated with these phases in use on the site for verification by the City. The construction equipment list shall state the makes, models, and numbers of construction equipment on-site. Equipment shall be properly serviced and maintained in accordance with the manufacturer's recommendations.

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AQ-2 The construction contractor(s) shall implement the following measures to reduce construction exhaust emissions during demolition and soil hauling activities associated with demolition and rough grading:

- Demolition activities shall be prohibited from overlapping with grading activities. Ground-disturbing activities shall commence following the demolition of the existing structures on-site.
- Hauling of soil generated from rough grading activities shall be limited to a maximum of 3,626 miles per day. Air quality modeling was based on the assumption that the 3,626 miles per day would consist of 98 one-way haul trips per day with 14 cubic-yard trucks and a one-way haul distance of approximately 37 miles. All plans shall identify the disposal site for exported material, the distance to the disposal site, and the number of permitted truck trips to the disposal site to remain under the miles per day limit.

These requirements shall be noted on all construction management plans prior to issuance of any construction permits and verified by the City of Laguna Niguel during the demolition and soil-disturbing phases.

#### Impact 5.2-4

AQ-3 The construction contractor shall prepare a dust control plan and implement the following measures during ground-disturbing activities—in addition to the existing requirements for fugitive dust control under South Coast Air Quality Management District (AQMD) Rule 403—to further reduce PM<sub>10</sub> and PM<sub>2.5</sub> emissions:

- Following all grading activities, the construction contractor shall prevent dust and wind-born erosion by either planting ground cover or applying a binder/gel tackifier.
- During all construction activities, the construction contractor shall sweep streets with South Coast AQMD Rule 1186-compliant, PM<sub>10</sub>-efficient vacuum units on a daily basis if silt is carried over to adjacent public thoroughfares or occurs as a result of hauling.
- During all construction activities, the construction contractor shall maintain a minimum 24-inch freeboard on trucks hauling dirt, sand, soil, or other loose materials and shall tarp materials with a fabric cover or other cover that achieves the same amount of protection.
- During all construction activities, the construction contractor shall water exposed ground surfaces and disturbed areas a minimum of every three hours on the construction site and a minimum of three times per day.
- During all construction activities, the construction contractor shall limit on-site vehicle speeds on unpaved roads to no more than 15 miles per hour.
- During all ground-disturbing activities, the construction contractor shall apply nontoxic soil stabilizers to minimize fugitive dust.

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Prior to construction activities, the construction contractor shall ensure that all construction plans submitted to the City clearly show the watering and soil stabilizer requirement to control fugitive dust. During construction activities, the City of Laguna Niguel shall verify that these measures have been implemented during normal construction site inspections.

5.2.8 Level of Significance After Mitigation

Impact 5.2-2

The overlapping construction phases that include demolition, site preparation, grading/earthwork, soil hauling, and utilities trenching would cause an exceedance in the South Coast AQMD NO<sub>x</sub> threshold. Mitigation Measure AQ-1 would require use of demolition, site preparation, grading, and utilities trenching equipment that meets the EPA’s Tier 4 (Final) emissions standards for construction activities, thereby requiring newer, cleaner construction equipment. Furthermore, Mitigation Measure AQ-2 would prohibit the overlap of demolition activities with site preparation and grading activities and would limit daily rough grading soil hauling to ensure peak construction emissions would not exceed South Coast AQMD thresholds. As shown in Table 5.1-13, *Maximum Daily Regional Construction Emissions with Mitigation Incorporated*, with the implementation of Mitigation Measures AQ-1 and AQ-2, construction-related NO<sub>x</sub> emissions would be reduced to below the South Coast AQMD threshold for NO<sub>x</sub>. Project and cumulative construction-related air quality impacts under Impact 5.2-2 would be reduced to less than significant.

**Table 5.2-13 Maximum Daily Regional Construction Emissions with Mitigation Incorporated**

Construction Phase	Pollutants (lb/day) <sup>1,2</sup>					
	VOC	NO <sub>x</sub>	CO	SO <sub>2</sub>	PM <sub>10</sub>	PM <sub>2.5</sub>
<b>Year 2023</b>						
Site Abatement	<1	4	5	<1	<1	<1
Demolition (2023)	4	32	31	<1	2	1
Demolition (2023) and Debris Haul (2023)	4	32	31	<1	2	1
<b>Year 2024</b>						
Demolition (2024)	1	5	41	<1	<1	<1
Site Preparation (2024) and Rough Grading (2024)	2	7	72	<1	10	4
Site Preparation (2024) and Rough Grading and Soil Haul (2024)	2	28	78	<1	13	5
Site Preparation (2024), Rough Grading and Soil Haul (2024), and Utilities Trenching	2	29	78	<1	13	5
Site Preparation (2024), Rough Grading and Soil Haul (2024), Utilities Trenching, and Building Construction	5	40	111	<1	22	8
Site Preparation and Soil Haul (2024), Rough Grading and Soil Haul (2024), Utilities Trenching, and Building Construction	5	63	118	<1	25	9
Site Preparation (2024), Rough Grading and Soil Haul (2024), Utilities Trenching, and Building Construction, Fine Grading and Soil Haul, and Paving	6	90	138	1	27	10
Building Construction (2024), Fine Grading and Soil Haul, Paving	5	47	65	<1	13	4

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**Table 5.2-13 Maximum Daily Regional Construction Emissions with Mitigation Incorporated**

Construction Phase	Pollutants (lb/day) <sup>1,2</sup>					
	VOC	NO <sub>x</sub>	CO	SO <sub>2</sub>	PM <sub>10</sub>	PM <sub>2.5</sub>
Building Construction (2024), Fine Grading, and Paving	5	30	60	<1	10	3
Building Construction (2024)	4	23	37	<1	9	3
<b>Year 2025</b>						
Building Construction (2025)	3	22	36	<1	9	3
Building Construction (2025), Architectural Coating (2025), Landscaping (2025)	17	23	41	<1	10	3
<b>Year 2026</b>						
Building Construction (2026), Architectural Coating (2026), Landscaping (2026)	17	23	40	<1	10	3
Landscaping (2026)	<1	1	2	<1	<1	<1
<b>Maximum Daily Construction Emissions</b>						
Maximum Daily Emissions	27	90	116	1	24	11
South Coast AQMD Regional Construction Threshold	75	100	550	150	150	55
<b>Significant?</b>	No	No	No	No	No	No

Source: CalEEMod Version 2020.4.

Emissions totals may not equal 100 percent due to rounding.

<sup>1</sup> Based on the preliminary information provided by the Applicant. Where specific information regarding project-related construction activities was not available, construction assumptions were based on CalEEMod defaults, which are based on construction surveys conducted by South Coast AQMD of construction equipment.

<sup>2</sup> Includes implementation of fugitive dust control measures required by South Coast AQMD under Rule 403, including watering disturbed areas a minimum of two times per day, reducing speed limit to 15 miles per hour on unpaved surfaces, replacing ground cover quickly, and street sweeping with Rule 1186-compliant sweepers.

<sup>3</sup> Implementation of Mitigation Measures AQ-1 and AQ-2 would reduce NO<sub>x</sub> emissions below South Coast AQMD thresholds by requiring equipment for the aforementioned construction phases to meet the EPA's Tier 4 (Final) emissions standards as well as by prohibiting the overlap of demolition activities with site preparation and rough grading activities and limiting daily soil haul, respectively.

### Impact 5.2-4

Like Impact 5.2-2, the overlapping construction phases that overlap with site preparation, rough grading/earthwork would exceed South Coast AQMD screening level LSTs for PM<sub>10</sub> and PM<sub>2.5</sub>, which would also cause project-related construction health impacts. In addition to Mitigation Measures AQ-1 and AQ-2, Mitigation Measure AQ-3 would limit construction-related emissions by requiring the construction contractor(s) to water exposed ground surfaces and disturbed areas three times a day and apply nontoxic soil stabilizers during ground-disturbing activities. As shown in Table 5.2-14, *Construction Emissions Compared to the Screening-Level LSTs with Mitigation Incorporated*, with the implementation of Mitigation Measures AQ-1, AQ-2, and AQ-3, construction-related PM<sub>10</sub> and PM<sub>2.5</sub> emissions would be reduced to below the South Coast AQMD screening-level LST. Thus, the project would not generate emissions that exceed any screening-level LST or cause any construction health impacts with mitigation incorporated. Impact 5.2-4 would be reduced to less than significant.

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**Table 5.2-14 Construction Emissions Compared to the Screening-Level LSTs with Mitigation Incorporated**

	Pollutants(lbs/day) <sup>1</sup>			
	NO <sub>x</sub>	CO	PM <sub>10</sub> <sup>2</sup>	PM <sub>2.5</sub> <sup>2</sup>
<b>South Coast AQMD 5.00-Acre LSTs</b>	<b>197</b>	<b>1,804</b>	<b>11.99</b>	<b>8.00</b>
Site Preparation (2024) and Rough Grading (2024)	7	70	9.56	4.28
Site Preparation (2024) and Rough Grading and Soil Haul (2024)	7	70	9.58	4.28
Site Preparation (2024), Rough Grading and Soil Haul (2024), and Utilities Trenching	7	70	9.58	4.28
Site Preparation (2024), Rough Grading and Soil Haul (2024), Utilities Trenching, and Building Construction	9	82	9.66	4.35
Site Preparation and Soil Haul (2024), Rough Grading and Soil Haul (2024), Utilities Trenching, and Building Construction	9	82	9.69	4.36
Site Preparation and Soil Haul (2024), Rough Grading and Soil Haul (2024), Utilities Trenching, and Building Construction, Fine Grading and Soil Haul, and Paving	19	96	8.96	4.65
<b>Exceeds LST?</b>	No	No	No	No

Source: CalEEMod Version 2020.4, and South Coast AQMD 2008b and 2011.

Notes: In accordance with South Coast AQMD methodology, only on-site stationary sources and mobile equipment occurring on the project site are included in the analysis. LSTs are based on receptors within 82 feet (25 meters) of the project site in Source Receptor Area (SRA) 21.

<sup>1</sup> Based on information provided or verified by the City. Where specific information regarding project-related construction activities or processes was not available, construction assumptions were based on CalEEMod defaults, which are based on construction surveys conducted by the South Coast AQMD.

<sup>2</sup> Includes implementation of fugitive dust control measures required by South Coast AQMD under Rule 403, including watering disturbed areas a minimum of two times per day, reducing speed limit to 15 miles per hour on unpaved surfaces, replacing ground cover quickly, and street sweeping with Rule 1186-compliant sweepers.

<sup>3</sup> As seen for Impact 5.2-2, Mitigation Measures AQ-1 and AQ-2 would reduce PM<sub>10</sub> and PM<sub>2.5</sub> emissions below South Coast AQMD thresholds by requiring equipment for the aforementioned construction phases to meet the EPA's Tier 4 (Final) emissions standards as well as by prohibiting the overlap of demolition activities with site preparation and rough grading activities and limiting daily soil haul, respectively. In addition, Mitigation Measure AQ-3 would require the construction contractor(s) to water exposed ground surfaces and disturbed areas three times a day.

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### 5.3 BIOLOGICAL RESOURCES

This section of the Draft Environmental Impact Report (DEIR) evaluates the potential impacts of the Laguna Niguel City Center Mixed Use Project (proposed project) to biological resources in the City of Laguna Niguel (City).

The analysis in this section is based in part on the following technical report(s):

- *Biological Survey and Jurisdictional Delineation at the AGORA Arts District Downtown Project Site*, VCS Environmental, March 24, 2016, updated November 30, 2021. (“2016 Biological Report”)
- *Biological Survey Memorandum, Town Center Project Site, City of Laguna Niguel, Orange County, California*, VCS Environmental, August 15, 2019, updated November 30, 2021. (“2019 Biological Report”)

Complete copies of these studies are included in the technical appendices to this Draft EIR (Appendix D).

#### 5.3.1 Environmental Setting

##### 5.3.1.1 REGULATORY BACKGROUND

###### Federal Regulations

###### *Endangered Species Act*

The Federal Endangered Species Act (FESA) of 1973, as amended, protects and conserves any species of plant or animal that is endangered or threatened with extinction, as well as the habitats where these species are found. “Take” of endangered species is prohibited under Section 9 of the FESA. “Take” means to “harass, harm, pursue, hunt, wound, kill, trap, capture, collect, or attempt to engage in any such conduct.” Section 7 of the FESA requires federal agencies to consult with the U.S. Fish and Wildlife Service (USFWS) on proposed federal actions that may affect any endangered, threatened, or proposed (for listing) species or critical habitat that may support the species. Section 4(a) of the FESA requires that critical habitat be designated by the USFWS “to the maximum extent prudent and determinable, at the time a species is determined to be endangered or threatened.” This provides guidance for planners/managers and biologists by indicating locations of suitable habitat and where preservation of a particular species has high priority. Section 10 of the FESA provides the regulatory mechanism for incidental take of a listed species by private interests and nonfederal government agencies during lawful activities. Habitat conservation plans (HCP) for the impacted species must be developed in support of incidental take permits to minimize impacts to the species and formulate viable mitigation measures.

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#### *Clean Water Act, Section 404*

The United States Army Corps of Engineers (USACE) regulates discharge of dredged or fill material into “waters of the United States.”<sup>1</sup> Any filling or dredging within waters of the United States requires a permit, which entails assessment of potential adverse impacts to USACE wetlands and jurisdictional waters and any mitigation measures that the USACE requires. Section 7 consultation with USFWS may be required for impacts to a federally listed species. If cultural resources may be present, Section 106 review may also be required. When a Section 404 permit is required, a Section 401 Water Quality Certification is also required from the Regional Water Quality Control Board (RWQCB).

#### *Clean Water Act, Section 401 and 402*

Section 401(a)(1) of the CWA specifies that any applicant for a federal license or permit to conduct any activity that may result in any discharge into navigable waters shall provide the federal permitting agency with a certification, issued by the state in which the discharge originates, that any such discharge will comply with the applicable provisions of the CWA. In California, the applicable RWQCB must certify that the project will comply with water quality standards. Permits requiring Section 401 certification include USACE Section 404 permits and National Pollutant Discharge Elimination System (NPDES) permits issued by the Environmental Protection Agency (EPA) under Section 402 of the CWA. NPDES permits are issued by the applicable RWQCB. The City is in the jurisdiction of the San Diego RWQCB (Region 9).

### State Regulations

#### *California Fish and Game Code, Section 1600*

Section 1600 of the California Fish and Game Code requires a project proponent to notify the California Department of Fish and Wildlife (CDFW) of any proposed alteration of streambeds, rivers, and lakes. The intent is to protect habitats that are important to fish and wildlife. CDFW may review and place conditions on the project, as part of a Streambed Alteration Agreement, that address potentially significant adverse impacts within CDFW’s jurisdictional limits.

#### *California Endangered Species Act*

The California Endangered Species Act (CESA) generally parallels the main provisions of the FESA and is administered by the CDFW. Its intent is to prohibit take and protect state-listed endangered and threatened species of fish, wildlife, and plants. Unlike its federal counterpart, CESA also applies the take prohibitions to species petitioned for listing (state candidates). Candidate species may be afforded temporary protection as though they were already listed as threatened or endangered at the discretion of the Fish and Game Commission. Unlike the FESA, CESA does not include listing provisions for invertebrate species. Under certain

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<sup>1</sup> “Waters of the United States,” as applied to the jurisdictional limits of the USACE under the Clean Water Act, includes all waters that are currently used, were used in the past, or may be susceptible to use in interstate or foreign commerce, including all waters that are subject to the tide; all interstate waters, including interstate wetlands; and all other waters, such as intrastate lakes, rivers, streams (including intermittent streams), mudflats, sandflats, wetlands, sloughs, prairie potholes, wet meadows, playa lakes, or natural ponds whose use, degradation, or destruction could affect interstate or foreign commerce; water impoundments; tributaries of waters; territorial seas; and wetlands adjacent to waters. The terminology used by Section 404 of the Clean Water Act includes “navigable waters,” which is defined at Section 502(7) of the act as “waters of the United States, including the territorial seas.”

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conditions, CESA has provisions for take through a 2081 permit or memorandum of understanding. In addition, some sensitive mammals and birds are protected by the state as “fully protected species.” California “species of special concern” are species designated as vulnerable to extinction due to declining population levels, limited ranges, and/or continuing threats. This list is primarily a working document for the CDFW’s California Natural Diversity Database (CNDDDB), which maintains a record of known and recorded occurrences of sensitive species. Informally listed taxa are not protected per se, but warrant consideration in the preparation of biological resources assessments.

#### Local Regulations

##### *Orange County Central and Coastal Natural Community Conservation Plan/Habitat Conservation Plan*

The study area is within the boundaries of the Orange County Central and Coastal Natural Community Conservation Plan (NCCP)/HCP Subregion; the NCCP/HCP covers 12 natural communities and 39 species. However, the City of Laguna Niguel is not a participant or permittee to this subregional plan. The study area has not been identified as an area proposed for inclusion in the NCCP Reserve System and has not been identified as having high, medium, or low conservation value for the NCCP based on the Final Orange County Central and Coastal NCCP/HCP Subregion Plan, dated July 17, 1996.

##### *Laguna Niguel Municipal Code*

Section 9-1-81, Hillside Protection, of the Laguna Niguel Municipal Code protects public health and safety by preserving very steep hillsides in open space and by minimizing geologic hazards, erosion, and other potential dangers associated with hillside areas. Goals of this section are to minimize impacts in hillside areas to protect endangered, threatened, or rare species of flora and fauna, to ensure that any permitted hillside development conforms to the character of the natural topography, and that the visual impacts of grading are softened by requiring designs that incorporate slope undulation, blending, and other features to reflect the natural terrain. The hillside protection regulations in this section shall apply to the development of existing parcels having an average slope gradient of 10 percent or more wherein proposed grading quantities are greater than 5,000 cubic yards, and all tentative tract and tentative parcel maps on parcels with an average slope gradient of 10 percent or more.

Sections 9-1-92.3, Nonresidential Landscaping, and 9-1-93.3, Residential Landscaping, require that new projects be designed to preserve existing trees to the greatest extent possible. Landscape, grading, and site plans should incorporate these trees into the overall project design, including measures to protect the existing trees during and after construction. Such measures shall be clearly indicated in both preliminary and final construction drawings.

#### 5.3.1.2 EXISTING CONDITIONS

##### Plant Communities

Four land cover/vegetation communities were observed within the project site during the March 2016 and August 2019 surveys—two vegetated (nonnative grassland and landscaped and ornamental) and two

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unvegetated (developed and disturbed) types. Vegetation mapping is illustrated on Figure 5.3-1, *Land Cover/Vegetation Map*.

#### *Nonnative Grassland (8.76 acres)*

The nonnative grassland occurs within the central undeveloped portion of the site. The topography is mostly flat but generally slopes gently toward the south. The nonnative grassland consists primarily of: barley (*Hordeum murinum*), riggut brome (*Bromus diandrus*), oat (*Avena* sp.), red brome (*Bromus madritensis* ssp. *rubens*), soft chess (*Bromus hordeaceus*), rattail fescue (*Festuca myuros*), red-stem filaree (*Erodium cicutarium*), tocalote (*Centaurea melitensis*), bristly ox tongue (*Helminthotheca echioides*), and black mustard (*Brassica nigra*). Along the toe of the manufactured slope to the west is a moderate density of artichoke thistle (*Cynara cardunculus*) and Italian thistle (*Carduus pycnocephalus* ssp. *pycnocephalus*). Fiddleneck (*Amsinckia menziesii*), a native herbaceous species, was also observed within the nonnative grassland area.

#### *Developed (7.13 acres)*

A portion of the site is developed, which includes areas that have been altered due to construction of above-ground facilities such as buildings, paved parking lots and roads, and sidewalks.

#### *Landscaped and Ornamental (7.10 acres)*

The landscaping and ornamental vegetation is a human-influenced assemblage of plant species, mostly around the perimeter of the site and along the edges of the roads, parking lots, and buildings in the northern and southern parts of the site, and along the bottom of the manufactured slope adjacent to the residential development on the western edge of the study area. The landscaping is primarily associated with the on-site development. The landscaped and ornamental vegetation contains primarily nonnative trees and shrubs. Many trees are on the site, including species such as eucalyptus (*Eucalyptus* sp.), Brazilian pepper (*Schinus terebinthifolius*), carrotwood (*Cupaniopsis anacardioides*), jacaranda (*Jacaranda mimosifolia*), magnolia (*Magnolia* sp.), Mexican fan palm (*Washingtonia robusta*), and pines (*Pinus* sp.). Ornamental ground cover species, including English ivy (*Hedera helix*), periwinkle (*Vinca major*), freeway iceplant (*Carpobrotus edulis*), and prostrate acacia (*Acacia redolens*) were observed in high density within the landscaped and ornamental portion of the study area.

A few naturally recruited native shrubs found in the landscaped areas include lemonade berry (*Rhus integrifolia*), laurel sumac (*Malosma laurina*), California sagebrush (*Artemisia californica*), and coyote bush (*Baccharis pilularis*).

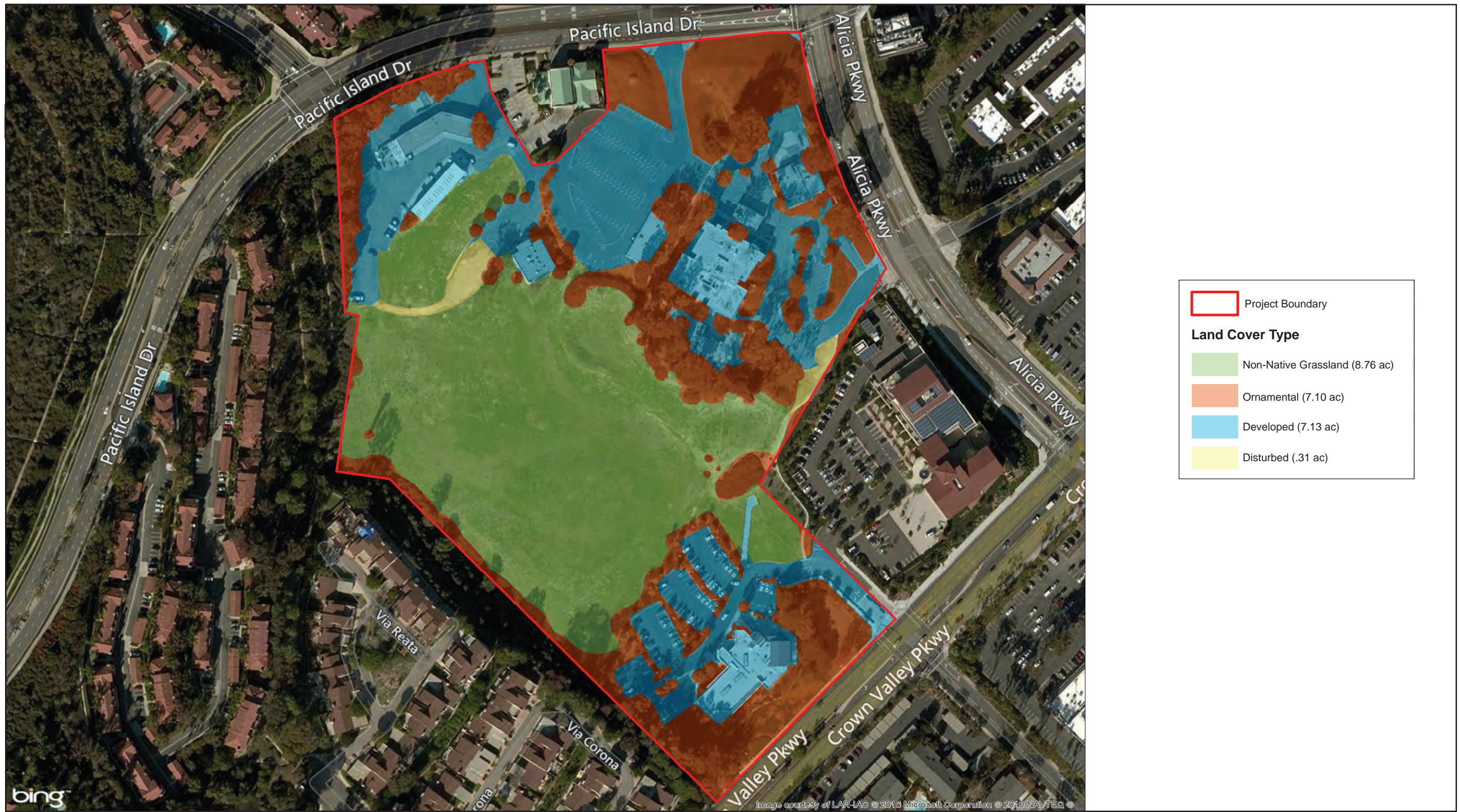
#### *Disturbed (0.31 acre)*

The disturbed portion of the site includes a small dirt road and small adjacent area of bare ground in the northern portion of the site as well as an area of mostly bare ground along the eastern edge of the study area.

#### *Summary*

In summary, 15.86 acres of the site are vegetated with nonnative grassland and landscaped and ornamental vegetation, and 7.44 acres (developed and disturbed) are unvegetated.

Figure 5.3-1 - Land Cover/Vegetation Map  
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#### Plants

Many of the plant species identified on-site are mentioned in the descriptions of land cover types, above. A full list of plant species identified during the habitat assessment is in Table 1 of the biological survey, “Plant Species Observed in the Study Area” (see Appendix D).

#### Sensitive Plants

No sensitive special status plants were observed during the field surveys. Because of the developed and generally disturbed nature of the study area, the site has little to no potential to support sensitive plant species.

As detailed in Table 5.3-1, the CNDDDB identified nine sensitive plant species that are within two miles of the project site. Habitat on-site was evaluated for suitability for each species identified. The potential for each species to occur on-site was identified as very low due to the absence of suitable habitat.

**Table 5.3-1 Special Status Plant Species with Potential to Occur On-Site**

Scientific Name	Common Name	Status	General Habitat Description	Potential to Occur On-Site
<i>Comarostaphylis diversifolia</i> ssp. <i>diversifolia</i>	Summer holly	CNPS 1B.2, BLMS	Chaparral, cismontane woodland. Often in mixed chaparral in California, sometimes post-burn. 30–945 m elev.	Very low; no suitable habitat present.
<i>Dudleya multicaulis</i>	Many-stemmed dudleya	CNPS 1B.2, BLMS	Chaparral, coastal scrub, valley and foothill grassland. In heavy, often clayey soils or grassy slopes. 15–790 m el.	Very low; no suitable habitat present (grassland present is dominated by nonnative species).
<i>Dudleya stolonifera</i>	Laguna Beach dudleya	FT, ST CNPS 1B.1	Chaparral, cismontane woodland, coastal scrub, valley and foothill grassland. In thin soil on north-facing sandstone cliffs. 5–185 m el.	Very low; no suitable habitat present (grassland present is dominated by nonnative species).
<i>Euphorbia misera</i>	Cliff spurge	CNPS 2B.2	Coastal bluff scrub, coastal scrub, Mojavean desert scrub. Rocky sites. 10–430 m el.	Very low; no suitable habitat present.
<i>Pentachaeta aurea</i> ssp. <i>allenii</i>	Allen’s pentachaeta	CNPS 1B.1	Valley and foothill grasslands, coastal scrub. Openings in scrub or grassland. 75–520 m el.	Very low; no suitable habitat present (grassland present is dominated by nonnative species).
<i>Quercus dumosa</i>	Nuttall’s scrub oak	CNPS 1B.1, FSS	Closed-cone coniferous forest, chaparral, coastal scrub. Generally on sandy soils near the coast; sometimes on clay loam. 15–400 m el.	Very low; no suitable habitat present.
<i>Verbesina dissita</i>	Big-leaved crownbeard	FT, ST CNPS 1B.1	Chaparral, coastal scrub. Steep, rocky, primarily N-facing slopes within 1.5 miles of the ocean, in gravelly soils. 45–205 m el.	Very low; no suitable habitat present.
<i>Brodiaea filifolia</i>	Thread-leaved brodiaea	FT, SE CNPS 1B.1	Chaparral (openings), cismontane woodland, coastal scrub, playas, valley and foothill grassland, vernal pools. Usually associated with annual grassland and vernal pools; often surrounded by shrubland habitats. Occurs in openings on clay soils. 15–1020 m el.	Very low; no suitable habitat present (grassland present is dominated by nonnative species).

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### BIOLOGICAL RESOURCES

**Table 5.3-1 Special Status Plant Species with Potential to Occur On-Site**

Scientific Name	Common Name	Status	General Habitat Description	Potential to Occur On-Site
<i>Calochortus weedii</i> <i>var. intermedius</i>	Intermediate mariposa-lily	CNPS 1B.2, FSS	Coastal scrub, chaparral, valley and foothill grassland. Dry, rocky open slopes and rock outcrops. 105–855 m el.	Very low; no suitable habitat present (grassland present is dominated by nonnative species).

Source: VCS Environmental 2016, 2021.

**Legend:**

**Federal Endangered Species Act (ESA) Listing Codes:** Federal listing is pursuant to the Federal Endangered Species Act of 1973, as amended (ESA).

FE = federally listed as endangered: any species, subspecies, or variety of plant or animal that is in danger of extinction throughout all or a significant portion of their range.

FT = federally listed as threatened: any species, subspecies, or variety of plant or animal that is considered likely to become endangered throughout all or a significant portion of its range within the foreseeable future.

**California Endangered Species Act (CESA) Listing Codes:** State listing is pursuant to § 1904 (Native Plant Protection Act of 1977) and §2074.2 and §2075.5

(California Endangered Species Act of 1984) of the Fish and Game Code, relating to listing of Endangered, Threatened and Rare species of plants and animals.

SE = state listed as endangered: any species, subspecies, or variety of plant or animal that are in serious danger of becoming extinct throughout all, or a significant portion, of their range.

ST = state listed as threatened: any species, subspecies, or variety of plant or animal that, although not presently threatened with extinction, is likely to become an endangered species in the foreseeable future.

**United States Forest Service (USFS):**

FSS = Forest Service sensitive: those plant and animal species identified by a Regional Forester that are not listed or proposed for listing under the ESA and for which population viability is a concern, as evidenced by: (a) significant current or predicted downward trends in population numbers or density or (b) significant current or predicted downward trends in habitat capability that would reduce a species' existing distribution."

**United States Bureau of Land Management (BLM):**

BLMS = BLM sensitive: those plant and animal species on BLM administered lands and that are (1) under status review by the USFWS/NMFS; or (2) whose numbers are declining so rapidly that federal listing may become necessary, or (3) with typically small and widely dispersed populations; or (4) those inhabiting ecological refugia or other specialized or unique habitats. BLM policy is to provide the same level of protection as USFWS candidate species.

**California Native Plant Society (CNPS) Threat Ranks:** The CNPS Threat Rank is an extension added onto the California Rare Plant Rank (CRPR) and designates the level of endangerment by a 1 to 3 ranking with 1 being the most endangered and 3 being the least endangered. A Threat Rank is present for all California Rare Plant Rank 1B's, 2's, 4's, and the majority of California Rare Plant Rank 3's. California Rare Plant Rank 4 plants are seldom assigned a Threat Rank of 0.1, as they generally have large enough populations to not have significant threats to their continued existence in California; however, certain conditions exist to make the plant a species of concern and hence be assigned a California Rare Plant Rank. In addition, all California Rare Plant Rank 1A (presumed extinct in California), and some California Rare Plant Rank 3 (need more information) plants, which lack threat information, do not have a Threat Rank extension.

0.1 = seriously endangered in California (over 80% of occurrences threatened / high degree and immediacy of threat)

0.2 = fairly endangered in California (20-80% occurrences threatened / moderate degree and immediacy of threat)

### Sensitive Communities

No sensitive natural communities were identified on-site.

### Wildlife

Wildlife observed on-site consisted of 2 mammal species—California ground squirrel (*Otospermophilus beecheyi*) and pocket gopher (*Thomomys sp.*)—and 13 bird species. A full list of wildlife species observed on-site is included in Table 2 of the biological survey (see Appendix D).

### Sensitive Wildlife

No sensitive animal species were observed during the March 2016 survey. A single sensitive animal species, Cooper's hawk (*Accipiter cooperii*), a CDFW Watch List species when nesting, was observed during the August 2019 survey.



## 5. Environmental Analysis BIOLOGICAL RESOURCES

As detailed in Table 5.3-2, the CNDDDB identified eight sensitive animal species within two miles of the project site. Habitat on-site was evaluated for suitability for each species. One of the species, western mastiff bat, was evaluated as having low potential to occur on-site. Western mastiff bat roosts in crevices in cliff faces, high buildings, trees, and tunnels. Tall trees and buildings are present on-site, but the surrounding area is developed. Additionally, the buildings appear to be maintained and closed off. The remaining seven species were assessed as having very low potential to occur on-site due to the lack of suitable habitat.

**Table 5.3-2 Special Status Wildlife Species with Potential to Occur On-Site**

Scientific Name	Common Name	Status	General Habitat Description	Potential to Occur On-Site
<i>Eucyclogobius newberryi</i>	Tidewater goby	FE, SSC	Brackish water habitats along the California coast from Agua Hedionda Lagoon, San Diego Co. to the mouth of the Smith River. Found in shallow lagoons and lower stream reaches, they need fairly still but not stagnant water and high oxygen levels.	Very low; no suitable habitat.
<i>Aspidoscelis hyperythra</i>	Orangethroat whiptail	SSC, FSS	Inhabits low-elevation coastal scrub, chaparral, and valley-foothill hardwood habitats. Prefers washes and other sandy areas with patches of brush and rocks. Perennial plants necessary for its major food-termites.	Very low; no suitable habitat.
<i>Emys marmorata</i>	Western pond turtle	BLMS, SSC, FSS	A thoroughly aquatic turtle of ponds, marshes, rivers, streams & irrigation ditches, usually with aquatic vegetation, below 6000 feet elevation. Need basking sites and suitable (sandy banks or grassy open fields) upland habitat up to 0.5 km from water for egg-laying.	Very low; no suitable habitat.
<i>Phrynosoma blainvillii</i>	Coast horned lizard	BLMS, SSC	Frequents a wide variety of habitats, most common in lowlands along sandy washes with scattered low bushes. Open areas for sunning, bushes for cover, patches of loose soil for burial & abundant supply of ants and other insects.	Very low; typical suitable habitat not present.
<i>Aimophila ruficeps canescens</i>	Southern California rufous-crowned sparrow	WL	Resident in Southern California coastal sage scrub and sparse mixed chaparral. Frequents relatively steep, often rocky hillsides with grass and forb patches.	Very low; no suitable habitat.
<i>Polioptila californica californica</i>	Coastal California gnatcatcher	FT, SSC	Obligate, permanent resident of coastal sage scrub below 2500 feet in Southern California. Low, coastal sage scrub in arid washes, on mesas and slopes. Not all areas classified as coastal sage scrub are occupied.	Very low; no suitable habitat.

## 5. Environmental Analysis

### BIOLOGICAL RESOURCES

**Table 5.3-2 Special Status Wildlife Species with Potential to Occur On-Site**

Scientific Name	Common Name	Status	General Habitat Description	Potential to Occur On-Site
<i>Vireo bellii pusillus</i>	Least Bell's vireo	FE, SE	Summer resident of Southern California in low riparian in vicinity of water or in dry river bottoms; below 2000 feet. Nests placed along margins of bushes or on twigs projecting into pathways, usually willow, Baccharis, mesquite.	Very low; no suitable habitat.
<i>Eumops perotis californicus</i>	Western mastiff bat	BLMS, SSC	Many open, semi-arid to arid habitats, including conifer and deciduous woodlands, coastal scrub, grasslands, chaparral, etc. Roosts in crevices in cliff faces, high buildings, trees and tunnels.	Low; tall trees and buildings are present on-site but the surrounding area is developed. Also, the buildings appear to be maintained and closed off.

Source: VCS Environmental 2016, 2021.

**Legend:**

**Federal Endangered Species Act (ESA) Listing Codes:** Federal listing is pursuant to the Federal Endangered Species Act of 1973, as amended (ESA).

FE = federally listed as endangered: any species, subspecies, or variety of plant or animal that is in danger of extinction throughout all or a significant portion of their range.

FT = federally listed as threatened: any species, subspecies, or variety of plant or animal that is considered likely to become endangered throughout all or a significant portion of its range within the foreseeable future.

**California Endangered Species Act (CESA) Listing Codes:** State listing is pursuant to § 1904 (Native Plant Protection Act of 1977) and §2074.2 and §2075.5 (California Endangered Species Act of 1984) of the Fish and Game Code, relating to listing of Endangered, Threatened and Rare species of plants and animals.

SE = state listed as endangered: any species, subspecies, or variety of plant or animal that are in serious danger of becoming extinct throughout all, or a significant portion, of their range.

ST = state listed as threatened: any species, subspecies, or variety of plant or animal that, although not presently threatened with extinction, is likely to become an endangered species in the foreseeable future.

**California Department of Fish and Wildlife (CDFW):**

SSC = species of special concern: status applies to animals which 1) are declining at a rate that could result in listing, or 2) historically occurred in low numbers and known threats to their persistence currently exist. The CDFW has designated certain vertebrate species as "species of special concern" because declining population levels, limited ranges, and/or continuing threats have made them vulnerable to extinction.

Fully protected: animal species may not be taken or possessed at any time and no licenses or permits may be issued for their take except for collecting these species for necessary scientific research and relocation of the bird species for the protection of livestock.

WL = watch list: these birds have been designated as "Taxa to Watch" in the California Bird Species of Special Concern report. The report defines "Taxa to Watch" as those that are not on the current special concern list that (1) formerly were on the 1978 (Remsen 1978) or 1992 (CDFG 1992) special concern lists and are not currently listed as state threatened and endangered; (2) have been removed (delisted) from either the state or federal threatened and endangered lists (and remain on neither), or (3) are currently designated as "fully protected" in California.

**United States Forest Service (USFS):**

FSS = Forest Service sensitive: those plant and animal species identified by a Regional Forester that are not listed or proposed for listing under the ESA and for which population viability is a concern, as evidenced by: (a) significant current or predicted downward trends in population numbers or density or (b) significant current or predicted downward trends in habitat capability that would reduce a species' existing distribution."

**United States Bureau of Land Management (BLM):**

BLMS = BLM sensitive: those plant and animal species on BLM administered lands and that are (1) under status review by the USFWS/NMFS; or (2) whose numbers are declining so rapidly that federal listing may become necessary, or (3) with typically small and widely dispersed populations; or (4) those inhabiting ecological refugia or other specialized or unique habitats. BLM policy is to provide the same level of protection as USFWS candidate species.

### Wildlife Movement Corridors

The study area is not within any contiguous native habitat corridors and is unlikely to function as a wildlife corridor or wildlife movement area due to the proximity of major roads and residential development. The site is bordered to the north by Pacific Island Drive, to the east by Alicia Parkway, to the south by Crown Valley Parkway, and to the west by residences.

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### Jurisdictional Waters and Wetlands

The project site is not considered to contain jurisdictional waters of the United States, as defined by the USACE pursuant to Section 404 of the Clean Water Act, or jurisdictional waters of the State as defined by the CDFW pursuant to Sections 1600 to 1603 of the California Fish and Game Code. There are a number of features on-site that appear to be designed for the management of storm flows but are not considered jurisdictional:

- Portions of concrete drainage ditches along the bottom of the manufactured slope along the western and northwestern edge of the project site that drain to the toe of the slope onto the nonnative grassland.
- Concrete drainage ditches and storm drains within the developed portion of the site to transmit runoff to the storm drain system.
- Individual storm-drain openings south of the county maintenance facility in the northern portion of the site.
- A swale at the southern edge of the nonnative grassland with no evidence of defined hydrology (stream bed/banks or ordinary high water mark) that appears to be designed to collect sheet flows from on-site runoff and prevent storm flows from washing into the adjacent parking lot and County Library. The swale slopes to the west. There is corrugated metal standpipe at the west end of the swale, which appears to transmit water directly to the storm drain system.
- A concrete inlet at the southern end of the toe of the manufactured slope on the west side of the project site, which appears to be designed to gather storm flows draining off the manufactured slope and transmit flows directly to the storm drain system.

No water was present during the site visits, and there is no evidence of defined hydrology (stream bed/banks, ordinary high water mark, etc.) in the project site. There were a couple of mulefat (*Baccharis salicifolia*) plants and a small patch of Pennsylvania bittercress (*Oligosperma pennsylvanica*) observed during the March 2016 survey near the standpipe at the west end of the swale; however, due to the very localized occurrence of these plants and lack of any other hydrologic indication, this is not considered jurisdictional waters. No other characteristic wetland or riparian vegetation was found on-site.

### 5.3.2 Thresholds of Significance

According to Appendix G of the CEQA Guidelines, a project would normally have a significant effect on the environment if the project would:

- B-1 Have a substantial 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-2 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.

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- B-3 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.
- B-4 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.
- B-5 Conflict with any local policies or ordinances protecting biological resources, such as a tree preservation policy or ordinance.
- B-6 Conflict with the provisions of an adopted habitat Conservation Plan, Natural Community Conservation Plan, or other approved local, regional, or state habitat conservation plan.

### 5.3.3 Plans, Programs, and Policies

- PPP BIO-1 **Special-Status Species.** The FESA, administered by the USFWS, prohibits unlawful “take” of any listed species (16 U.S. Code Sections 1531–1544). The CESA, administered by CDFW, prohibits “take” of any listed species (California Fish and Game Code, Section 86).
- PPP BIO-2 The proposed project will implement the requirements of Sections 9-1-81, 9-1-92.3, and 9-1-93.3 of the Laguna Niguel Municipal Code.

### 5.3.4 Environmental Impacts

#### 5.3.4.1 METHODOLOGY

VCS Environmental conducted a biological survey and prepared a corresponding report in March 2016. On August 13, 2019, VCS Environmental conducted a subsequent biological survey at the project site to document whether field conditions are consistent or have changed since the March 2016 biological survey. The biological surveys included vegetation/land cover mapping, jurisdictional delineation review, and observations of plants and wildlife species. The project site was surveyed on March 4, 2016, from 8:50 am to 11:30 am and on August 13, 2019, between 8:15 am and 10:15 am.

#### *Habitat and Wildlife Assessment*

Prior to the field survey, available literature and databases were reviewed regarding sensitive habitats and special status plant and wildlife species. Reviewed and consulted literature and databases focused on Orange County, California, and included the CNDDDB, a CDFW species database that inventories status and locations of rare plants and wildlife in California. The CNDDDB was used to identify any sensitive plant communities and special status plants and wildlife that may exist within the project site and surrounding area.

The biological survey was conducted on foot by methodically walking the property in all accessible areas. The existing habitat, land uses, and vegetation on-site were assessed to identify areas exhibiting potentially suitable habitat to support sensitive plants, sensitive wildlife, and breeding birds.

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The habitats within the project site were characterized, and the potential to support sensitive species was evaluated. Plant field guides were used to assist with identification of plant species during the field survey. Plant species encountered during the field survey were identified and recorded in field notes, except for some of the ornamental plant species in the landscaping.

The methods used to detect and identify wildlife included sight and vocalizations. Binoculars and wildlife field guides were used to aid in the identification of observed wildlife. All wildlife species or their sign encountered during the field survey were identified and recorded in field notes.

The site was surveyed again on August 13, 2019, from 8:15 am to 10:15 am to document whether field conditions are consistent with or have changed from the biological assessment in March 2016. This biological survey included vegetation/land cover mapping and observations of plants and wildlife species.

### *Jurisdictional Waters Assessment*

The project site was assessed for jurisdictional wetland waters of the United States on March 4, 2016, and August 13, 2019. To determine the presence of a wetland, three indicators are required: (1) hydrophytic vegetation, (2) hydric soils, and (3) wetland hydrology. The methodology published in the USACE's 1987 Wetland Delineation Manual and the Arid West Supplement sets the standards for meeting each of the three indicators, which normally require that 50 percent or more dominant plant species typical of a wetland, soils exhibiting characteristics of saturation, and hydrological indicators. Projects with impacts to waters of the U.S. are regulated under Sections 401 and 404 of the Clean Water Act.

Additionally, the project site was assessed for jurisdictional nonwetland waters of the U.S., which are typically determined through the observation of an ordinary high water mark and are defined as the

... line on the shore established by the fluctuation of water and indicated by physical characteristics such as a clear, natural line impressed on the bank, shelving, changes in the character of soil, destruction of terrestrial vegetation, the presence of litter and debris, or other appropriate means that consider the characteristics of the surrounding areas. (33 Code of Federal Regs. Section 329.11)

Furthermore, the project site was assessed for jurisdictional waters of the State, which are defined as the

... body of water that flows at least periodically or intermittently through a bed or channel having banks and supports fish or other aquatic life. This includes watercourses having surface or subsurface flow that supports or has supported riparian vegetation. (14 Cal. Code of Regs. Section 1.72)

Waters of the State are regulated by CDFW through Section 1600 et seq. of the California Fish and Game Code.

### **5.3.4.2 IMPACT ANALYSIS**

The following impact analysis addresses thresholds of significance. The applicable thresholds are identified in brackets after the impact statement.

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**Impact 5.3-1: Development of the proposed project could impact the Cooper's hawk, a California Department of Fish and Wildlife Watch List species when nesting, and white-tailed kite, a Sensitive Species. [Threshold B-1]**

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No sensitive plant species or sensitive habitat were documented on site during the 2016 and 2019 field surveys. Additionally, the project site is not within USFWS critical habitat for federally threatened and endangered species.

One sensitive wildlife species was observed during the August 2019 field survey, the Cooper's hawk (*Accipiter cooperii*), a CDFW Watch List species when nesting. Additionally, there is foraging and nesting potential on-site for other avian species, including sensitive species such as the white-tailed kite (*Elanus leucurus*), which is California Fully Protected. The eucalyptus trees and other ornamental trees provide habitat for nesting, and the open space areas provide habitat for foraging. Construction of the project could disturb raptor or songbird nests on the project site, and such an impact would be considered potentially significant. Potential impacts to nesting birds, including sensitive raptor species such as Cooper's hawk and white-tailed kite, would be mitigated to less than significant through the implementation of Mitigation Measure BIO-1.

*Level of Significance Before Mitigation:* Potentially Significant.

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**Impact 5.3-2: The project would not 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. [Threshold B-2]**

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No sensitive natural communities or riparian habitat were identified on-site. Additionally, no jurisdictional waters were present on-site during the site surveys.

*Level of Significance Before Mitigation:* No Impact.

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**Impact 5.3-3: The project would not have a substantial adverse effect on federally protected wetlands as defined by Section 404 of the Clean Water Act (including but not limited to marsh, vernal pool, coastal, etc.) through direct removal, filling, hydrological interruption, or other means. [Threshold B-3]**

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No jurisdictional waters were present on-site during the site surveys. Therefore, regulatory permits—including a Section 1600 Streambed Alteration Agreement from the CDFW, Section 401 Water Quality Certification from the Regional Water Quality Control Board, and Section 404 Nationwide Permit from the USACE—are not considered necessary for any impacts to those resources.

*Level of Significance Before Mitigation:* No Impact.

## 5. Environmental Analysis BIOLOGICAL RESOURCES

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**Impact 5.3-4: The proposed project would not interfere with wildlife movement or a wildlife corridor; however, the proposed project could interfere with a native wildlife nursery site. [Threshold B-4]**

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The site is not in any contiguous native habitat corridors and is unlikely to provide any significant function as a wildlife corridor or wildlife movement area due to the proximity of major roads and residential development. The site is bordered to the north by Pacific Island Drive, to the east by Alicia Parkway, to the south by Crown Valley Parkway, and to the west by residential housing. Therefore, development of the proposed project would not interfere with an established wildlife corridor.

The 2016 field survey determined that the project site contains suitable breeding, nesting, and/or roosting habitat for breeding bird species. The 2019 field survey observed one sensitive animal species, the Cooper's hawk (a CDFW Watch List species when nesting). Therefore, development of the proposed project would result in a potentially significant impact with regard to impeding the use of native wildlife nursery sites. Potential impacts to nesting birds, including sensitive raptor species such as Cooper's hawk and white-tailed kite, would be mitigated to less than significant through the implementation of Mitigation Measure BIO-1.

*Level of Significance Before Mitigation:* Potentially Significant.

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**Impact 5.3-5: The proposed project would not conflict with any policies or ordinance protecting biological resources or conflict with an adopted Habitat Conservation Plan, National Community Conservation Plan, or other approved local, regional, or state habitat conservation plan [Thresholds B-5 and B-6]**

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The project site is within the boundaries of the Orange County Central and Coastal NCCP/HCP. However, the City is not a participant or permittee to this NCCP/HCP, and development within the City is not subject to the requirements of the NCCP/HCP. Thus, the proposed project would not conflict with any provisions related to such plans, and impacts would be less than significant.

Section 9-1-81 (Hillside Protection) of the Laguna Niguel Municipal Code applies to development of existing parcels having an average slope gradient of 10 percent or more, which are parcels in the steep hillside areas of the City. The project site is not subject to the Hillside Protection Ordinance. While the project site does have grade change, the project site is not considered a hillside and does not have an average gradient of 10 percent or more. Therefore, this code section does not apply.

Sections 9-1-92.3(h) and 9-1-93.3(d) provide local regulations for tree preservation, requiring that the construction and design of new projects incorporate preservation measures to protect existing trees in place to the greatest extent possible. According to these sections, if the decision-making authority determines that significant existing trees cannot be saved, it may require their replacement with new specimen-size trees having a cumulative trunk diameter of up to two times the cumulative trunk diameter of the trees to be removed. Based on the existing conditions of the project site, City staff has determined the existing trees on the project site are not considered significant. The trees are common nonnative species and do not create a substantial aesthetic or habitat value for the City. The proposed project includes a detailed landscape plan, including the placement of several specimen trees at highly visible locations within the proposed development area. The

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landscape plan also proposes enhanced landscaping along the project perimeter. For these reasons staff has determined the existing trees are not significant and not subject to the strict replacement requirements. The analysis of these code sections will be presented to the decision-makers for a final decision in accordance with the code section. Since the project would comply with these code sections and no physical impacts to the environment would occur, impacts would be less than significant.

***Level of Significance Before Mitigation:*** With the implementation of PPP BIO-2, Impact 5.3-5 would be Less Than Significant.

#### 5.3.5 Cumulative Impacts

The area considered for cumulative impacts to biological resources is the Orange County Central-Coastal NCCP/ HCP Subregion. The project site has not been identified as an area proposed for inclusion in the NCCP Reserve System and has not been identified as having high, medium, or low conservation value for the NCCP. No sensitive plants, riparian habitat, or other sensitive natural communities occur on-site. No jurisdictional waters of the State or US are found on-site either. Given the built-out nature of the project area and the site's proximity to major roads and residential development, the project site also does not provide any significant function as a wildlife corridor or wildlife movement area. However, development of the proposed project could impact the Cooper's hawk, a CDFW Watch List species when nesting. Similar to the proposed project, each cumulative project would be reviewed on a case-by-case basis for its impact on biological resources and would be expected to comply with existing regulations and local and regional plans, ordinances, and policies protecting biological resources, such as those listed in PPP BIO-1 and PPP BIO-2. Additionally, similar to the proposed project, each related project would be expected to implement mitigation measures, which would reduce each project's impact. Thus, the proposed project would not make a cumulatively considerable contribution to a potentially significant cumulative biological resources impact.

#### 5.3.6 Level of Significance Before Mitigation

Upon implementation of regulatory requirements and standard conditions of approval, some impacts would be less than significant: 5.3-2, 5.3-3, and 5.3-5.

Without mitigation, these impacts would be **potentially significant**:

- **Impact 5.3-1** Development of the proposed project could impact the Cooper's hawk, a California Department of Fish and Wildlife Watch List species when nesting, and white-tailed kite, a Sensitive Species.
- **Impact 5.3-4** Development of the proposed project could disturb breeding grounds for bird species.



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### 5.3.7 Mitigation Measures

#### Impact 5.3-1 and Impact 5.3-4

BIO-1 Prior to removal of potentially suitable nesting habitat for raptors or songbirds, the project applicant shall demonstrate to the satisfaction of the City of Laguna Niguel that the following has been or will be accomplished:

The project applicant and construction contractor shall schedule all vegetation removal activities outside the nesting season to avoid potential impacts to nesting birds, including sensitive raptor species such as Cooper's hawk and white-tailed kite. The nesting season is February 15 to September 15 for songbirds and January 15 to September 15 for raptors.

If vegetation removal cannot be avoided during the nesting season—January 15 through September 15—the project applicant shall have a qualified biologist survey all potential nesting vegetation within the property for nesting birds prior to commencing vegetation removal. If no nesting activities are observed, work activities may begin. If an active bird nest is located, the nest site should be avoided, and a buffer should be marked/flagged at an appropriate distance in all directions. The buffer distance is dependent on the nesting bird species, typically 500 feet for endangered, threatened, and candidate species and all raptors, and 100 to 300 feet for other species, as determined appropriate by the qualified biologist. No work shall occur within the buffer area until after the nest becomes inactive, or unless a qualified biologist monitors the nest during construction activities within the buffer and does not observe any signs of stress or erratic behavior that indicate a negative effect on nesting. The biologist shall inform construction personnel of the location of active nest(s) and required avoidance measures. The survey results shall be submitted to the City of Laguna Niguel Planning Division for review and approval.

### 5.3.8 Level of Significance After Mitigation

Impacts 5.3-2, 5.3-3, and 5.3-5 were less than significant prior to mitigation. With the incorporation of Mitigation Measure BIO-1 and adherence to regulatory compliance measures, Impact 5.3-1 and Impact 5.3-4 would be reduced to a less than significant level.

### 5.3.9 References

VCS Environmental. 2016, March (updated November 30, 2021). Biological Survey and Jurisdictional Delineation at the AGORA Arts District Downtown Project Site.

———. 2019, August (updated November 30, 2021). Town Center Project Site, City of Laguna Niguel, Orange County, California. Biological survey memorandum.

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### BIOLOGICAL RESOURCES

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### 5.4 CULTURAL RESOURCES

Cultural resources comprise archaeological and historical resources. Archaeology studies human artifacts, such as places, objects, and settlements that reflect group or individual religious, cultural, or everyday activities. Historical resources include sites, structures, objects, or places that are at least 50 years old and are significant for their engineering, architecture, cultural use or association, etc. In California, historic resources cover human activities over the past 12,000 years. Cultural resources provide information on scientific progress, environmental adaptations, group ideology, or other human advancements. This section of the Draft Environmental Impact Report (DEIR) evaluates the potential for implementation of the Laguna Niguel City Center Mixed Use Project (proposed project) to impact cultural resources in the City of Laguna Niguel (City). Tribal Cultural Resources are analyzed in Section 5.16. The analysis in this section is based in part on the following information:

- *Cultural Resources Summary for the Agora Downtown Laguna Niguel Project*, Cogstone, March 30, 2016.

A complete copy of this study is in the technical appendices of this DEIR (Appendix E).

#### 5.4.1 Environmental Setting

##### 5.4.1.1 REGULATORY BACKGROUND

###### Federal

###### *Archaeological Resources Protection Act*

The Archaeological Resources Protection Act of 1979 regulates the protection of archaeological resources and sites on federal and Indian lands.

###### *National Historic Preservation Act*

The National Historic Preservation Act of 1966 (NHPA) coordinates public and private efforts to identify, evaluate, and protect the nation's historic and archaeological resources. The act authorized the National Register of Historic Places, which lists districts, sites, buildings, structures, and objects that are significant in American history, architecture, archaeology, engineering, and culture.

Section 106 (Protection of Historic Properties) of the NHPA requires federal agencies to take into account the effects of their undertakings on historic properties. Section 106 Review ensures that historic properties are considered during federal project planning and implementation. The Advisory Council on Historic Preservation, an independent federal agency, administers the review process with assistance from state historic preservation offices.

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#### State

##### *California Public Resources Code and Health and Safety Code*

Archaeological and historical sites are protected under a wide variety of state policies and regulations in the California Public Resources Code (PRC) and California Health and Safety Code (HSC). In addition, cultural resources are recognized as nonrenewable resources and receive protection under the PRC and CEQA.

PRC Sections 5020 to 5029.5 continued the former Historical Landmarks Advisory Committee as the State Historical Resources Commission. The commission oversees the administration of the California Register of Historical Resources and is responsible for designating State Historical Landmarks and Historical Points of Interest.

PRC Sections 5079 to 5079.65 define the functions and duties of the Office of Historic Preservation, which administers federal- and state-mandated historic preservation programs in California as well as the California Heritage Fund.

PRC Sections 5097.9 to 5097.991 provide protection to Native American historical and cultural resources and sacred sites; identify the powers and duties of the Native American Heritage Commission (NAHC); require that descendants be notified when Native American human remains are discovered; and provide for treatment and disposition of human remains and associated grave goods.

HSC Sections 7050.5 to 7055 protects human remains from disturbance and desecration. In particular, HSC Section 7050.5 requires that if human remains are accidentally discovered, the county coroner must be contacted. If the coroner determines the remains are Native American, the coroner must contact that Native American Heritage Commission within 24 hours.

#### Local

##### *Laguna Niguel General Plan*

The Open Space, Parks, and Conservation Element of the Laguna Niguel General Plan discusses the conservation of cultural and historical resources and identifies the following goal and policies relating to cultural resources.

- **Goal 7:** Recognize significant cultural sites or features within the community.
  - **Policy 7.1.** Review the technical data on sensitive cultural resources for all new development proposals.
  - **Policy 7.2.** Require mitigation of impacts to significant areas of archaeological and paleontological resources.
  - **Policy 7.3.** Preserve uncovered resources in their natural state, as much as feasible to assure their preservation and availability for later study. Require that uncovered resources are documented and retained in an appropriate museum or other institution.

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### 5.4.1.2 EXISTING CONDITIONS

#### Natural Setting

The project site is in southern Orange County within the cismontane portion of the Peninsular Ranges geomorphic province of southern California. The Peninsular Ranges are formed by the San Jacinto Mountains, Santa Rosa Mountains, and Laguna Mountains through the San Joaquin Hills.

Aliso Creek flows northeast-southwest north of the project site; Sulphur Creek also flows northeast-southwest northeast of the project site; and Salt Creek flows southerly south of the site.

The site elevation ranges from approximately 305 feet above mean sea level (amsl) in the southeast corner to approximately 370 feet amsl in the western portion of the site, with an average grade of 4.5 percent. An east-west ridgeline runs throughout the northern third of the property at an elevation of 370 feet amsl.

The majority of the site consists of sedimentary deposits of the marine Late Miocene Capistrano Formation. Portions of the lower-lying northeastern project area may have surface deposits of younger terrestrial Quaternary Alluvium (Orange 2008).

#### Cultural Setting

Laguna Niguel, including the project site, is situated in a region that was inhabited by the Luiseño and Gabrieleño Native American groups. The Luiseño occupied approximately 1,500 square miles of the southern California coast—from the Santiago Peak to the north, the Palomar Mountains to the east, and San Luis Rey River to the south.

The Luiseño and the Gabrieleño have a history of interaction and border one another's territories at Aliso Creek, just north of the project site. Gabrieleño territory encompassed over 1,500 square miles and included the San Fernando Valley, San Gabriel Valley, and Los Angeles-Santa Ana River Plain. They also occupied the islands of Santa Catalina, San Clemente, and San Nicholas (Orange 2008).

#### *Cultural Resources*

The project footprint is inclusive of a previously proposed project, the AGORA Arts District Downtown (AGORA) project, which was not implemented. A cultural resources study was completed for the AGORA project that included a records search and literature review for archeological and historical records. The records search of the California Historical Resources Information System (CHRIS) was conducted by Cogstone on January 26, 2016, at the South Central Coast Information Center (SCCIC), California State University at Fullerton. The records search covered a one-mile radius around the project boundaries. The records search results indicate that 25 cultural resources investigations have been completed previously within a one-mile radius of the project area. Of these, four investigations included a portion of the project area.

The records search results indicate that four cultural resources were previously recorded within one mile of the project site, and two are within the project boundaries (see Table 5.4-1). CA-ORA-33 was recorded in 1960 as a prehistoric shell midden site with manos, metate fragments, a stone pendant, scrapers, and choppers present.

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Test excavations in 1960 concluded that the site was a seasonal camp. It is at the southern boundary of the site. Given the grading activities that occurred to build the existing parking lots, it is unlikely that any portion of the site has been preserved.

**Table 5.4-1 Previously Recorded Resources Within a One-Mile Radius of the Project Area**

Trinomial	Description	Year	Distance from Project Site
CA-ORA-33	Prehistoric shell midden site with manos, metate fragments, a stone pendant, scrapers, and choppers present. Test excavations in 1960 concluded that the site was a seasonal camp. Location covered by urban built environment.	1960	Within project site, at southern boundary
CA-ORA-131	Prehistoric site. The site record contains minimal details except to note that surface finds indicate that the site is a good prospect for excavation and that the site was destroyed in 1976. Location covered by urban built environment.	1963	Within project site, at eastern boundary
CA-ORA-505	Prehistoric site consisting of a dark midden with flake waste.	1975	Within 1.0 mile
CA-ORA-539	Prehistoric site consisting of a quartz schist slab metate	1976	Within 0.5 mile

Source: Cogstone 2016.

CA-ORA-131 was recorded in 1963 as a prehistoric site. The site record contains minimal details but states that the resource CA-ORA-131 was destroyed in 1976. The site was at the eastern boundary of the project site. Significant grading and filling have taken place in this area to fill and relocate the creek and to level the land for the library and other development. The grading and filling in the location of CA-ORA-131 makes it improbable that any portion of the site is preserved. The locations of these two known sites are completely developed.

Two additional cultural resources, CA-ORA-505 and CA-ORA-539, are within the one-mile search radius but outside the project area. CA-ORA-505 is a prehistoric site consisting of a dark midden with flake waste. CA-ORA-539 is a prehistoric site consisting of a quartz schist slab metate.

In addition to the records at the SCCIC, a variety of sources were consulted by Cogstone in January 2016 to obtain information regarding the project area. Sources include the National Register of Historic Places, California Register of Historical Resources, California Historical Resources Inventory, California Historical Landmarks, California Points of Historical Interest, and the Bureau of Land Management's General Land Office. The General Land Office's records show that one land patent was granted in 1873 to multiple individuals, including Juan Avilar and the Sanchez family.

#### *Sacred Lands File Search*

The NAHC maintains a confidential Sacred Lands File that with sites of traditional, cultural, or religious value to the Native American community. A Sacred Lands File search request was submitted to the NAHC to inquire about the presence/absence of sacred or religious sites in the vicinity of the project area for the AGORA project. On January 28, 2016, the NAHC responded that there are no sacred lands within the project area or a half-mile radius. The City submitted an updated project description for the proposed project to the NAHC on September 25, 2019. The NAHC responded on October 8, 2019, with an updated consultation list of tribes with traditional lands or cultural places within the boundaries of the project and Orange County. The NAHC

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response also included AB 52 and SB 18 requirements and guidelines. Two tribes sent responses: the Pala Band of Mission Indians and the Agua Caliente Band of Cahuilla Indians.

The Pala Band of Mission Indians stated that a check of their cultural registry revealed that this project is not within the recognized Pala Indian Reservation or the boundaries of the territory that the tribe considers its traditional use area. Therefore, they defer to the other tribes in the area, and the letter concluded their consultation effort.

The Agua Caliente Band of Cahuilla Indians noted that a check of the tribal historic preservation office's cultural registry revealed that this project is not within the tribe's traditional use area. Therefore, they defer to the other tribes in the area, and the letter concluded their consultation effort.

### 5.4.2 Thresholds of Significance

CEQA Guidelines Section 15064.5 provides direction on determining significance of impacts to archaeological and historical resources. Generally, a resource shall be considered a "historical resource" if the resource meets the criteria for listing on the California Register of Historical Resources:

- Is associated with events that have made a significant contribution to the broad patterns of California's history and cultural heritage.
- Is associated with the lives of persons important in our past.
- Embodies the distinctive characteristics of a type, period, region or method of construction, or represents the work of an important creative individual, or possesses high artistic values.
- Has yielded, or may be likely to yield, information important in prehistory or history. (PRC § 5024.1; 14 CCR § 4852)

A "historical resource" also generally includes a resource included in a local register of historical resources, as defined in PRC section 5020.1(k) or identified as significant in a historical resource survey meeting the requirements of PRC section 5024.1(g). In addition, any object, building, structure, site, area, place, record, or manuscript that is historically significant or significant in the architectural, engineering, scientific, economic, agricultural, educational, social, political, military, or cultural annals of California may be considered a historical resource, provided the lead agency's determination is supported by substantial evidence in light of the whole record.

The fact that a resource is not listed in the California Register of Historical Resources, not determined to be eligible for listing, or not included in a local register of historical resources does not preclude a lead agency from determining that it may be a historical resource.

CEQA also protects unique archeological resources. "Unique archaeological resource" means an archaeological artifact, object, or site about which it can be clearly demonstrated that, without merely adding to the current body of knowledge, there is a high probability that it meets any of the following criteria:

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- (1) Contains information needed to answer important scientific research questions and that there is a demonstrable public interest in that information.
- (2) Has a special and particular quality such as being the oldest of its type or the best available example of its type.
- (3) Is directly associated with a scientifically recognized important prehistoric or historic event or person.

According to Appendix G of the CEQA Guidelines and the City's CEQA Manual, a project would normally have a significant effect on the environment if the project would:

- C-1 Cause a substantial adverse change in the significance of a historical resource pursuant to Section 15064.5. Substantial adverse change in the significance of an historical resource means physical demolition, destruction, relocation, or alteration of the resource or its immediate surroundings such that the significance of an historical resource would be materially impaired.
- C-2 Cause a substantial adverse change in the significance of an archaeological resource pursuant to Section 15064.5.
- C-3 Disturb any human remains, including those interred outside of dedicated cemeteries.

### 5.4.3 Plans, Programs, and Policies

- PPP CUL-1 In accordance with California Health and Safety Code, Section 7050.5, if human remains are found, the County Coroner shall be notified within 24 hours of the discovery. No further excavation or disturbance of the site or any nearby area reasonably suspected to overlie adjacent remains shall occur until the County Coroner has determined, within two working days of notification of the discovery, the appropriate treatment and disposition of the human remains. If the County Coroner determines that the remains are or believed to be Native American, s/he shall notify the Native American Heritage Commission (NAHC) in Sacramento within 48 hours. In accordance with California Public Resources Code, Section 5097.98, the NAHC must immediately notify the persons it believes to be the most likely descended from the deceased Native American. The descendants shall complete their inspection within 48 hours of being granted access to the site. The designated Native American representative would then determine, in consultation with the property owner, the disposition of the human remains.

### 5.4.4 Environmental Impacts

#### 5.4.4.1 METHODOLOGY

##### Previous Studies

An EIR was prepared in 2008 for the South Court Facility project within the project site. The 2008 South Court Facility project was not implemented; however, a cultural resources study was completed for the 2008 project.



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The previous cultural resources study included a records search and field reconnaissance of the project site on June 14, 2006. No cultural resources were observed during the pedestrian survey.

As described above in 5.4.1.2, *Existing Conditions*, the project footprint is inclusive of a previously proposed project, the AGORA project, which was not implemented. A cultural resources study was completed on March 30, 2016, for the AGORA project that included a records search and literature review for archeological and historical records.

### Cultural Resources Records Search

A search of the CHRIS at the SCCIC, California State University at Fullerton, was conducted as part of Cogstone's March 2016 Cultural Resources Summary. The record search reviewed the project site and a one-mile radius around the project site.

In addition to the records at the SCCIC, a variety of sources were consulted by Cogstone in January 2016 to obtain information regarding the project area. Sources include the National Register of Historic Places, California Register of Historical Resources, California Historical Resources Inventory, California Historical Landmarks, California Points of Historical Interest, the Bureau of Land Management's General Land Office records.

### Sacred Lands File Search

As described above, a Sacred Land Files request was submitted to the NAHC on January 28, 2016, to inquire about the presence/absence of sacred or religious sites in the vicinity of the project area for the AGORA project. The City submitted an updated project description for the proposed project to the NAHC on September 25, 2019. The NAHC responded on October 8, 2019, with an updated consultation list of tribes with traditional lands or cultural places within the boundaries of the project and Orange County. In accordance with AB 52 and SB 18 requirements, on October 25, 2019, the City sent certified letters to 24 Native American contacts provided by the NAHC notifying them of the proposed project and requesting comments or concerns for the project area.

### 5.4.4.2 IMPACT ANALYSIS

The following impact analysis addresses thresholds of significance. The applicable thresholds are identified in brackets after the impact statement.

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**Impact 5.4-1: Development of the project would not impact an identified historic resource pursuant to Section 15064.5. [Threshold C-1]**

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The CEQA Guidelines Section 15064.5 defines historic resources as resources listed or determined to be eligible for listing by the State Historical Resources Commission, a local register of historical resources, or the lead agency. Generally, a resource is considered "historically significant" if it meets one of the following criteria:

- Is associated with events that have made a significant contribution to the broad patterns of California's history and cultural heritage.

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- Is associated with the lives of persons important in our past.
- Embodies the distinctive characteristics of a type, period, region or method of construction, or represents the work of an important creative individual, or possesses high artistic values.
- Has yielded, or may be likely to yield, information important in prehistory or history.

The records search conducted for the project site identified two previously recorded cultural resources within the project site—CA-ORA-33 and CA-ORA-131. The pedestrian survey and cultural resources study conducted for the project site determined that CA-ORA-33 and CA-ORA-131 are no longer extant and are completely covered by urban built environment. No built historical resources are recorded at the project site.

Although it was determined that the known subsurface resources identified within the project site no longer exist, unknown subsurface resources that qualify as historical resources could still exist within the project site. The presence of previously recorded prehistoric archaeological sites in the vicinity of the project suggests the potential for buried, unknown archaeological resources within the project site. If subsurface archaeological resources are present within the project site, they may qualify as historical resources pursuant to CEQA and could be subject to potential impacts as result of project implementation. Therefore, the project has the potential to cause a substantial change in the significance of a historical resource. Mitigation Measure CUL-1 would require archaeological monitoring during construction in native soils, and appropriate treatment of unearthed historical resources during construction. Potential impacts to unknown historical resources would be mitigated to less than significant through the implementation of Mitigation Measure CUL-1.

***Level of Significance Before Mitigation:*** Potentially Significant.

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#### **Impact 5.4-2: Development of the project could impact archaeological resources. [Threshold C-2]**

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The Cultural Resources Summary identifies four records within one mile of the project site (refer to Table 5.4-1, above). Of the four records, two recorded cultural resources are on the project site—CA-ORA-33 and CA-ORA-131 (Cogstone 2016).

Resource CA-ORA-33 was recorded in 1960 as a prehistoric shell midden site with manos, metate fragments, a stone pendant, scrapers, and choppers, part of a seasonal camp. Site surveys in 2008 yielded no trace of the site and noted that the site is in the terraced parking lots leading upslope to the courthouse facility. Given the grading activities needed to build the existing parking lots, it is unlikely that any portion of the Resource CA-ORA-33 site has been preserved.

Resource CA-ORA-131 was recorded in 1963 as a prehistoric site; however, the site was destroyed in 1976. Site surveys in 2008 found that significant grading and filling took place in this area to fill and relocate the creek and to level the land for the current library and other development, which makes it improbable that any part of the Resource CA-ORA-131 site was preserved. Overall, the two resources previously present in the project site no longer exist, and those sites are completely developed.

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Nevertheless, portions of the project site have not been excavated or graded. Construction of the proposed project would require earthwork activities, such as grading, to ensure the proper base and slope for the proposed buildings. The potential exists that archeological resources may be unearthed. Therefore, development of the proposed project has the potential to result in a significant impact on unique archeological resources. Mitigation Measure CUL-1 would require archaeological monitoring during construction in native soils, and appropriate treatment of unearthed archaeological resources during construction. Potential impacts to unknown unique archaeological resources would be mitigated to less than significant through the implementation of Mitigation Measure CUL-1.

*Level of Significance Before Mitigation:* Potentially Significant.

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**Impact 5.4-3: Grading activities would not disturb human remains. [Threshold C-3]**

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There is no indication from either the archival research results or the archaeological survey that any particular location within the project area has been used for human burial purposes in the recent or distant past. Construction of the proposed project would require earthwork activities, such as grading, to ensure the proper base and slope for the proposed buildings. If human remains are discovered during project construction activities, they could be damaged or disturbed, which would be a significant impact. California Health and Safety Code Section 7050.5, CEQA Section 15064.5, and PRC Section 5097.98 mandate procedures in the event of an accidental discovery of any human remains in a location other than a dedicated cemetery. Specifically, California Health and Safety Code Section 7050.5 requires that if human remains are discovered within the project site, disturbance of the site shall remain halted until the coroner has conducted an investigation into the circumstances, manner, and cause of death, and made recommendations concerning the treatment and disposition of the human remains to the person responsible for the excavation, or to his or her authorized representative, in the manner provided in Section 5097.98 of the PRC. If the coroner determines that the remains are not subject to his or her authority and if the coroner has reason to believe the human remains to be those of a Native American, he or she shall contact, by telephone within 24 hours, the Native American Heritage Commission. Although soil-disturbing activities associated with the proposed project could result in the discovery of human remains, compliance with existing law would ensure no significant impacts to human remains.

*Level of Significance Before Mitigation:* With the implementation of PPP CUL-1, Impact 5.4-3 would be less than significant.

#### 5.4.5 Cumulative Impacts

Development of the proposed project and related projects have the potential to encounter and potentially degrade historic resources, cultural resources, and human remains. However, similar to the proposed project, each related project would be expected to comply with PRC Section 15064.5, perform site-specific cultural analyses, implement mitigation measures if needed, and comply with other applicable regulatory compliance measures. The proposed project site does not contain any known historical and/or archeological resources or human remains. However, because the proposed project would conduct earthwork activities on previously undisturbed portions of the project site, the proposed project would require mitigation measures to minimize

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its impact to potential archeological materials to a less than significant level and reduce the potential for the project to contribute to cumulative impacts to cultural resources. Therefore, the project's contribution to cumulative cultural resource impacts would be considered less than cumulatively considerable, and the project's impacts would be less than significant.

#### 5.4.6 Level of Significance Before Mitigation

Upon implementation of regulatory requirements and standard conditions of approval, impacts to unknown human remains would be less than significant: 5.4-3.

Without mitigation, these impacts would be **potentially significant**:

- **Impact 5.4-1** Development of the proposed project has the potential to unearth unknown historical resources.
- **Impact 5.4-2** Development of the proposed project has the potential to unearth unknown archeological resources.

#### 5.4.7 Mitigation Measures

##### Impacts 5.4-1 and 5.4-2

CUL-1 Prior to the issuance of grading permits, and for any subsequent permit involving excavation to increased depths, the project applicant shall provide a letter to the City of Laguna Niguel from a qualified archaeologist who meets the Secretary of the Interior's Professional Qualifications Standards. The letters shall state that the applicant has retained this individual, and that the consultant will monitor all grading and other significant ground-disturbing activities in native soil. During initial monitoring, if the qualified archaeologist can demonstrate that the level of monitoring should be reduced or discontinued, or if the qualified archaeologist can demonstrate a need for continuing monitoring, the qualified archaeologist, in consultation with the Laguna Niguel Planning Division, may adjust the level of monitoring to circumstances as warranted. In the event archaeological resources are discovered during ground-disturbing activities, the archeological monitor shall have the authority to halt any activities that may adversely impact potentially significant cultural resources until they can be formally evaluated. Suspension of ground disturbances in the vicinity of the discoveries shall not be lifted until the archaeological monitor has evaluated discoveries to assess whether they are classified as significant cultural resources, pursuant to the California Environmental Quality Act (CEQA) and determined construction activities can resume without damaging resources.

If archaeological resources are discovered, the archeologist shall assess the most appropriate treatment for the resources, prioritizing preservation in place. When data recovery through excavation is the only feasible treatment method, the archeologist shall prepare a data recovery plan with provisions for adequately recovering the scientifically consequential information

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from and about the historical resource and shall deposit studies with the California Historical Resources Regional Information Center. Recovered archeological resources shall be offered to a repository with a retrievable collection system and an educational and research interest in the materials, such as the John D. Cooper Center or California State University, Fullerton, or a responsible public or private institution with a suitable repository willing to and capable of accepting and housing the resource. If no museum or repository willing to accept the resource is found, the resource shall be considered the property of the City and may be stored, disposed of, transferred, exchanged, or otherwise handled by the City at its discretion.

If significant Native American cultural resources are discovered for which a treatment plan must be prepared the project applicant or the archaeologist on call shall contact the applicable Native American tribal contact(s). If requested by the Native American tribe(s), the project applicant or archaeologist on call shall, in good faith, consult on the discovery and its disposition (e.g, avoidance, preservation, reburial, return of artifacts to tribe).

#### **5.4.8 Level of Significance After Mitigation**

With incorporation of mitigation measure CUL-1, Impacts 5.4-1 and 5.4-2 would be less than significant.

#### **5.4.9 References**

Cogstone. 2016, March 30. Cultural Resources Summary for the Agora Downtown Laguna Niguel Project. (DEIR Appendix E).

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### 5.5 ENERGY

This section evaluates the potential for energy-related impacts associated with the project and ways in which the project would reduce unnecessary energy consumption, consistent with the suggestions in Appendix F of the CEQA Guidelines. Energy service providers to the site include Southern California Edison (SCE) for electrical service and Southern California Gas Company (SoCalGas) for natural gas. Modeling of electricity and natural gas usage of the project is included in Appendix C of this DEIR. Vehicle and equipment energy calculations are included in Appendix F of this DEIR.

#### 5.5.1 Environmental Setting

Section 21100(b)(3) of CEQA requires that an EIR include a detailed statement setting forth mitigation measures proposed to minimize significant effects on the environment, including but not limited to, measures to reduce the wasteful, inefficient, and unnecessary consumption of energy. Appendix F of the State CEQA Guidelines states that, in order to ensure that energy implications are considered in project decisions, the potential energy implications of a project shall be considered in an EIR, to the extent relevant and applicable to the project. Appendix F further states that a project's energy consumption and proposed conservation measures may be addressed, as relevant and applicable, in the project description, environmental setting, and impact analysis portions of technical sections, as well as through mitigation measures and alternatives. The update of the CEQA Guidelines, effective December 28, 2018, provided specific requirements for the assessment of energy impacts and integrated energy as a topical section in the Appendix G checklist of the CEQA Guidelines.

In accordance with Appendices F and G of the CEQA Guidelines, this EIR includes relevant information and analyses that address the energy implications of the proposed project. This section represents a summary of the Laguna Niguel City Center Mixed Use Project's (proposed project) anticipated energy needs, impacts, and conservation measures. Information found herein, as well as other aspects of the proposed project's energy implications, are discussed in greater detail elsewhere in this EIR, including Chapter 3, *Project Description*, and Sections 5.2, *Air Quality*, 5.7, *Greenhouse Gas Emissions*, and 5.15, *Transportation*.

##### 5.5.1.1 REGULATORY BACKGROUND

###### Federal Regulations

###### *Federal Energy Policy and Conservation Act*

The Energy Policy and Conservation Act of 1975 was established in response to the 1973 oil crisis. The act created the Strategic Petroleum Reserve, established vehicle fuel economy standards, and prohibited the export of US crude oil (with a few limited exceptions). It also created Corporate Average Fuel Economy (CAFE) standards for passenger cars starting in model year 1978. The CAFE standards are updated periodically to account for changes in vehicle technologies, driver behavior, and/or driving conditions.

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The federal government issued new CAFE standards in 2012 for model years 2017 to 2025 that required a fleet average of 54.5 miles per gallon for model year 2025. However, on March 30, 2020, the US Environmental Protection Agency (EPA) finalized an updated CAFE and greenhouse gas emissions standards for passenger cars and light trucks and established new standards covering model years 2021 through 2026, known as the Safer Affordable Fuel Efficient (SAFE) Vehicles Final Rule for Model Years 2021 through 2026 (85 Federal Register 84 (April 30, 2020)). Under SAFE, the fuel economy standards will increase 1.5 percent per year compared to the 5 percent per year under the CAFE standards of 2012. Overall, SAFE requires a fleet average of 40.4 miles per gallon for model year 2026 vehicles. However, per Executive Order 13990 issued by President Biden on January 20, 2021, the EPA is reconsidering SAFE for the purpose of rescinding the rule. The reconsideration process is ongoing. A planned public hearing on June 2, 2021, started the public comment period that ended on July 6, 2021.

#### *Energy Independence and Security Act of 2007*

The Energy Independence and Security Act of 2007 (Public Law 110-140) seeks to provide the nation with greater energy independence and security by increasing the production of clean renewable fuels; improving vehicle fuel economy; and increasing the efficiency of products, buildings, and vehicles. It also seeks to improve the energy performance of the federal government. The act sets increased CAFE standards; the renewable fuel standard; appliance energy-efficiency standards; building energy-efficiency standards; and accelerated research and development tasks on renewable energy sources (e.g., solar energy, geothermal energy, and marine and hydrokinetic renewable energy technologies), carbon capture, and sequestration (US EPA 2019).

### State

#### *Warren-Alquist Act*

Established in 1974, the Warren-Alquist Act created the California Energy Commission (CEC) in response to the energy crisis of the early 1970s and the state's unsustainable growing demand for energy resources. The CEC's core responsibilities include advancing State energy policy, encouraging energy efficiency, certifying thermal power plants, investing in energy innovation, developing renewable energy, transforming transportation, and preparing for energy emergencies. The Warren-Alquist Act is updated annually to address current energy needs and issues, and its latest edition was in January 2021.

#### *Renewables Portfolio Standard*

The California Renewables Portfolio Standard (RPS) was established in 2002 under Senate Bill (SB) 1078 and was amended in 2006, 2011, and 2018. The RPS program requires investor-owned utilities, electric service providers, and community choice aggregators to increase the use of eligible renewable energy resources to 33 percent of total procurement by 2020. The California Public Utilities Commission is required to provide quarterly progress reports on progress toward RPS goals. This has accelerated the development of renewable energy projects throughout the state. According to the 2020 annual report, the three largest retail energy utilities—Pacific Gas and Electric, Southern California Edison, and San Diego Gas & Electric—provided 31, 38, and 39 percent, respectively, of their supplies from renewable energy sources (CPUC 2020). Since 2003,



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these three utilities have contracted over 21,000 megawatts (MW) of renewable capacity (CPUC 2020).<sup>1</sup> SB 350 (de Leon) was signed into law September 2015 and establishes tiered increases to the RPS—40 percent by 2024, 45 percent by 2027, and 50 percent by 2030. SB 350 also set a new goal to double the energy-efficiency savings in electricity and natural gas through energy efficiency and conservation measures. SB 100 (de Leon) passed in 2018 puts California on the path to 100 percent fossil-fuel-free electricity by the year 2045 (CEC 2017a).

#### *Senate Bill 350*

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

#### *Senate Bill 100*

On September 10, 2018, SB 100 was signed, replacing the SB 350 requirements. Under SB 100, the RPS for publicly owned facilities and retail sellers will consist of 44-percent renewable energy by 2024, 52 percent by 2027, and 60 percent by 2030. SB 100 also established a new RPS requirement of 50 percent by 2026. Furthermore, the bill established an overall State policy that eligible renewable energy resources and zero-carbon resources supply 100 percent of all retail sales of electricity to California end-use customers and 100 percent of electricity procured to serve all State agencies by December 31, 2045. Under the bill, the State cannot increase carbon emissions elsewhere in the western grid or allow resource shuffling to achieve the 100 percent carbon-free electricity target.

#### *Appliance Efficiency Regulations*

California's Appliance Efficiency Regulations (California Code of Regulations [CCR] Title 20, Parts 1600 to 1608) contain energy performance, energy design, water performance, and water design standards for appliances (including refrigerators, ice makers, vending machines, freezers, water heaters, fans, boilers, washing machines, dryers, air conditioners, pool equipment, and plumbing fittings) that are sold or offered for sale in California. These standards are updated regularly to allow consideration of new energy-efficiency technologies and methods (CEC 2017b).

#### *Title 24, Part 6, Energy-Efficiency Standards*

Energy conservation standards for new residential and nonresidential buildings were adopted by the California Energy Resources Conservation and Development Commission (now the CEC) in June 1977 and most recently revised in 2019 (24 CCR Part 6). Title 24 requires the design of building shells and building components to conserve energy. The standards are updated every three years to allow for consideration and possible incorporation of new energy-efficiency technologies and methods. The 2019 Building Energy-Efficiency Standards, which were adopted on May 9, 2018, went into effect January 1, 2020. The 2022 Title 24 goes into effect on January 1, 2023.

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<sup>1</sup> Renewable capacity is defined as the maximum power-generating capacity of power plants that use renewable energy sources to produce electricity.

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The 2019 standards move toward cutting energy use in new homes by more than 50 percent and require installation of solar photovoltaic systems for single-family homes and multifamily buildings of three stories and less (CBSC 2019a). The 2019 standards focus on four key areas: (1) smart residential photovoltaic systems; (2) updated thermal envelope standards (preventing heat transfer from the interior to exterior and vice versa); (3) residential and nonresidential ventilation requirements; and (4) nonresidential lighting requirements (CEC 2018). Based on a study of the statewide impacts of the 2019 changes to the California Energy Efficiency Standards, the reductions for newly constructed multifamily residential buildings are estimated to be 2 percent for electricity and 5 percent for natural gas compared to the 2016 standards. Newly constructed nonresidential buildings are estimated to have a 11 percent reduction for electricity and 1 percent for natural gas (NORESO 2018).

#### *Title 24, Part 11, Green Building Standards*

On July 17, 2008, the California Building Standards Commission adopted the nation's first green building standards—CALGreen (24 CCR Part 11)—as part of the California Building Standards Code. It includes mandatory requirements for new residential and nonresidential buildings throughout California. CALGreen is intended to (1) reduce greenhouse gas emissions from buildings; (2) promote environmentally responsible, cost-effective, healthier places to live and work; (3) reduce energy and water consumption; and (4) respond to the directives by the governor. The mandatory provisions of CALGreen became effective January 1, 2011, and were last updated in 2019. The 2019 CALGreen update became effective on January 1, 2020. The 2022 Title 24 goes into effect on January 1, 2023.

Overall, the code is established to reduce construction waste, make buildings more efficient in the use of materials and energy, and reduce environmental impacts during and after construction. CALGreen has requirements for construction site selection, stormwater control during construction, construction waste reduction, indoor water use reduction, material selection, natural resource conservation, site irrigation conservation, and more. The code provides for design options allowing the designer to determine how best to achieve compliance for a given site or building condition. The code also requires building commissioning, which is a process for verifying that all building systems (e.g., heating and cooling equipment and lighting systems) are functioning at their maximum efficiency (CBSC 2019b).

#### **5.5.1.2 EXISTING CONDITIONS**

##### **Electricity**

The project site is in SCE's service area, which spans much of southern California—from Orange and Riverside counties in the south to Santa Barbara County in the west to Mono County in the north (CEC 2022a). Total electricity consumption in SCE's service area) was 103,597 gigawatt-hours in 2020 (CEC 2022c).<sup>2</sup> Sources of electricity sold by SCE in 2020, the latest year for which data are available, were:

- 30.9 percent renewable, consisting mostly of solar and wind
- 3.3 percent large hydroelectric

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<sup>2</sup> One gigawatt-hour is equivalent to one million kilowatt-hours.

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- 15.2 percent natural gas
- 8.4 percent nuclear
- 0.3 percent other
- 42.0 percent unspecified sources—that is, not traceable to specific sources (CEC 2022d)<sup>3</sup>

The project site currently includes the library, former justice center, and country maintenance yard. The former justice center buildings are closed and do not generate a demand for energy. Operation of the existing buildings consumes electricity for various purposes, including but not limited to ventilation of buildings, water heating, operation of electrical systems, lighting, and use of onsite equipment and appliances.

### Gas

SoCalGas provides gas service in Laguna Niguel and has facilities throughout the city, including the project site. SoCalGas's service area spans much of the southern half of California, from Imperial County in the southeast to San Luis Obispo County in the northwest to part of Fresno County in the north to Riverside County and most of San Bernardino County in the east (CEC 2022c). Total natural gas supplies available to SoCalGas for years 2020 through 2022 are 3.175 billion cubic feet per day. Total natural gas consumption in SoCalGas's service area is forecast to be 2.103 billion cubic feet per day in 2035 (CEC 2022e).

The existing buildings currently in operation generate natural gas demand, such as from heating and cooling of the buildings.

### 5.5.2 Thresholds of Significance

Per the City's CEQA Manual, the City relies on the questions in CEQA Guidelines Appendix G as the thresholds of significance for assessing impacts to energy. In addition, Appendix F of the CEQA Guidelines provides guidance on the contents of energy studies.

Per the City's CEQA Manual, in most cases, a project that relies on modern equipment for construction and complies with California Code of Regulations Title 24 Part 6, Energy Efficiency Standards, and the CALGreen Code for building construction would have less than significant impacts. Projects that rely on outdated equipment or are a unique use with high energy demands may cause a significant impact. In such cases, an energy analysis shall be prepared by a qualified engineer, typically the same engineer who prepares the air quality study.

According to Appendix G of the CEQA Guidelines, a project would normally have a significant effect on the environment if the project would:

- E-1 Result in potentially significant environmental impact due to wasteful, inefficient, or unnecessary consumption of energy resources, during project construction or operation.

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<sup>3</sup> The electricity sources listed reflect changes after the 2013 closure of the San Onofre Nuclear Generating Station, which is owned by SCE.

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E-2 Conflict with or obstruct a state or local plan for renewable energy or energy efficiency.

### 5.5.3 Plans, Programs, and Policies

- PPP E-1 New buildings are required to achieve the current California Building Energy Efficiency Standards and California Green Building Standards Code (CALGreen). The 2019 Building Energy Efficiency Standards became effective on January 1, 2020. The Building Energy Efficiency Standards and CALGreen are updated tri-annually. The 2019 standards included energy reduction measures such as solar photovoltaic (PV) system requirements for all new low-rise residential buildings. Title 24 is updated to increase sustainability and energy efficiency every three years and the project would be subject to the version of Title 24 in effect when building permits are submitted.
- PPP E-2 New buildings are required to adhere to the California Green Building Standards Code (CALGreen) requirement to provide bicycle parking for new nonresidential buildings, or meet local bicycle parking ordinances, whichever is stricter (CALGreen Sections 5.106.4.1, 14.106.4.1, and 5.106.4.1.2).
- PPP E-3 California's Green Building Standards Code (CALGreen) requires the recycling and/or salvaging for reuse at minimum of 65 percent of the nonhazardous construction and demolition waste generated during most "new construction" projects (CALGreen Sections 4.408 and 5.408). Construction contractors are required to submit a construction waste management plan that identifies the construction and demolition waste materials to be diverted from disposal by recycling, reused on the project, or salvaged for future use or sale and the amount of construction and demolition waste generated (by weight or volume).
- PPP E-4 Construction activities are required to adhere to California Code of Regulations Title 13 Section 2499, which requires that nonessential idling of construction equipment is restricted to five minutes or less.
- PPP E-5 New buildings are required to adhere to the California Green Building Standards Code and the City's municipal code requirements to increase water efficiency and reduce urban per capita water demand.

### 5.5.4 Environmental Impacts

#### 5.5.4.1 METHODOLOGY

The impact analysis focuses on the following sources of energy that are relevant to the proposed project: electricity and natural gas associated with new development, the short-term fuel consumed during construction, and the long-term fuel use during operation of the project. The analysis of electricity and natural gas usage for the proposed project is based on emissions modeling using California Emissions Estimator Model (CalEEMod) Version 2020.4, which quantifies energy use for occupancy. In addition, calculations for construction fuel use

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are based on vehicle and equipment data from EMFAC2017 Version 1.0.3 and OFFROAD2017 Version 1.0.1. The emissions model and construction fuel use calculations are in Appendix F of this Draft EIR.

#### 5.5.4.2 IMPACT ANALYSIS

The following impact analysis addresses the thresholds of significance. The applicable thresholds are identified in brackets after the impact statement.

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**Impact 5.5-1: The project would not result in potentially significant environmental impact due to wasteful, inefficient, or unnecessary consumption of energy resources during project construction or operation. [Threshold E-1])**

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#### Short-Term Construction Impacts

Construction of the proposed project would create temporary increased demands for electricity and vehicle fuels compared to existing conditions and would result in short-term, transportation-related energy use. The construction of the project is not wasteful or unnecessary because the project responds to existing demand for commercial, residential, and civic uses and therefore these uses would be constructed regardless of the project. Locating these uses together on an urban infill site allows for efficiencies of scale and reduces construction waste.

#### *Electrical Energy*

Construction of the proposed project would not require electricity to power most construction equipment. Electricity use during construction would vary during different phases of construction. The majority of construction equipment during demolition and grading would be gas or diesel powered, and the later construction phases would require electricity-powered equipment for interior construction and architectural coatings. Overall, the use of electricity would be temporary and would fluctuate according to the phase of construction. Also, it is anticipated that the majority of electric-powered construction equipment would be hand tools (e.g., power drills, table saws, compressors) and lighting, which would result in minimal electricity usage during construction activities. Therefore, project-related construction activities would not result in wasteful or unnecessary electricity demands, and impacts would be less than significant.

#### *Natural Gas Energy*

It is not anticipated that construction equipment used for the proposed project would be powered by natural gas, and no other natural gas demand is anticipated during construction. Therefore, impacts would be less than significant with respect to natural gas usage.

#### *Transportation Energy*

Transportation energy use depends on the type and number of trips, vehicle miles traveled (VMT), fuel efficiency of vehicles, and travel mode. Transportation energy use during construction would come from the transport and use of construction equipment, delivery vehicles and haul trucks, and construction employee vehicles that would use diesel fuel and/or gasoline. Energy consumption during construction (2023 through

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2026) was calculated using the CalEEMod (v. 2020.4) computer model and data from the EMFAC2017 (v. 1.0.3) and OFFROAD2017 (v. 1.0.1) databases. The results are shown in Table 5.5-1.

**Table 5.5-1 Construction-Related Fuel Usage**

Project Component	Gas		Diesel		Electricity	
	VMT	Gallons	VMT	Gallons	VMT	kWh
Construction Worker Commute	7,144,702	227,142	57,434	1,168	169,168	54,406
Construction Vendor Trips	102,409	19,614	1,210,510	134,603	0	0
Construction Truck Haul Trips	555	121	556,158	75,781	0	0
Construction Off-Road Equipment	N/A	36,852	N/A	183,760	N/A	0
<b>Total</b>	<b>7,247,666</b>	<b>283,728</b>	<b>1,824,102</b>	<b>395,312</b>	<b>169,168</b>	<b>54,406</b>

Source: CalEEMod v. 2020.4; EMFAC2017 v. 1.0.3; OFFROAD2017 v. 1.0.1.

Notes: Fuel usage based on the preliminary information provided by the Applicant. Because the most current data shows a reduction in building area from the preliminary data, the model outputs are conservative.

VMT=vehicle miles traveled; kWh=kilowatt hour

The vehicle energy consumption would fluctuate by construction phase and would be temporary. It is anticipated that the majority of off-road construction equipment, including demolition and grading equipment, would be gas or diesel powered. In addition, all use of construction equipment would cease upon completion of project construction. Thus, impacts related to transportation energy use during construction would be temporary and would not require expanded energy supplies or the construction of new infrastructure. Furthermore, to limit wasteful and unnecessary energy consumption, the construction contractors are required to minimize nonessential construction equipment idling in accordance with 13 CCR, Article 4.8, Chapter 9, Section 2449, which limits nonessential idling of diesel-powered off-road equipment to five minutes or less.

The proposed project would not result in wasteful, inefficient, or unnecessary use of energy during construction. It is anticipated that the construction equipment would be well maintained and meet the appropriate tier ratings per CALGreen or US EPA emissions standards, so that adequate energy efficiency level is achieved. Construction trips would not result in unnecessary use of energy since the project site is centrally located and is served by numerous regional freeway systems (e.g., I-5 and SR-73) that provide the most direct routes from various areas of the region. Electrical energy would be available for use during construction from existing power lines and connections, precluding the use of less efficient generators. Thus, energy use during construction of the project would not be considered inefficient, wasteful, or unnecessary. Impacts would be less than significant.

### Long-Term Impacts During Operation

Operation of the proposed project would create additional demands for electricity and natural gas compared to existing conditions and would result in increased transportation energy use. Operational energy use would include heating, cooling, and ventilation of buildings; water heating; operation of electrical systems, use of on-site equipment and appliances; and indoor, outdoor, perimeter, and parking lot lighting.

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#### Electrical Energy

Operation of the existing library consumes electricity for various purposes, including but not limited to heating, cooling, and ventilation of buildings; water heating; operation of electrical systems; lighting; and use of on-site equipment and appliances. The project site also includes the former justice center, but it is currently closed and does not generate energy demand. Electrical service to the proposed project would be provided by SCE through connections to existing off-site electrical lines and new on-site infrastructure. As shown in Table 5.5-2, following implementation of the proposed project, the total electricity use at the project site would be 6,253,209 kilowatt hours per year, including 184,315 kWh/year from generated from the photovoltaic system. This is primarily due to electricity use by the proposed residential housing and enclosed parking structures.

**Table 5.5-2 Electricity Consumption – Proposed Project**

Land Use	Electricity (kWh/year) <sup>1,2,3</sup>
<b>Proposed Project Conditions</b>	
Apartments Mid Rise	1,056,040
Residential Photovoltaic System	-184,315
Enclosed Parking with Elevator	2,052,060
Fast Food Restaurant	656,366
General Office Building	784,125
High Turnover (Sit Down Restaurant)	634,052
Library	133,252
Medical Office Building	269,851
Other Non-Asphalt Surfaces	0
Parking Lot	105,000
Quality Restaurant	327,143
Regional Shopping Center	419,635
<b>Total</b>	<b>6,253,209</b>

Source: CalEEMod version 2020.4.

<sup>1</sup> Based on information provided by the Applicant.

<sup>2</sup> Accounts for total electricity use from proposed buildings. See Appendix C.

<sup>3</sup> Model uses the SDGE CalEEMod carbon intensities for energy calculations.

The proposed project would increase energy demand at the site compared to existing conditions, but it would be required to comply with the current Building Energy Efficiency Standards and CALGreen. In addition, the electricity demand generated by the proposed project would be less than 0.03 percent of the SCE's yearly electricity consumption. Therefore, it would not result in wasteful or unnecessary electricity demands. Furthermore, in accordance with Title 24, Part 6, the proposed project would include a residential photovoltaic (PV) system, which would offset some of the electricity use on the project site. In addition, the new proposed buildings would be more energy efficient than the existing buildings on-site. Therefore, the proposed project would not result in a significant impact related to electricity.

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#### *Natural Gas Energy*

The existing library generates demand for natural gas due to the heating and cooling for the building and water. The project site also houses former justice center, but it is currently closed and does not generate natural gas demand. The proposed natural gas consumption for the proposed project is shown in Table 5.5-3. Following implementation of the proposed project, the proposed facilities would generate natural gas demand of 11,339,112 kilo British thermal units per year. Development pursuant to the proposed project would result in a net increase in the natural gas demands. However, because the proposed project would be built to meet the current Building Energy Efficiency Standards, it would not result in wasteful or unnecessary natural gas demands and would be more efficient than the existing on-site buildings. In addition, the natural gas demand generated by the proposed project would be less than 0.001 percent of the SoCalGas' yearly natural gas supplies. Therefore, operation of the proposed project would result in less than significant impacts with respect to natural gas usage.

**Table 5.5-3 Natural Gas Consumption – Proposed Project**

Land Use	Natural Gas (kBTU/year) <sup>1,2</sup>
<b>Proposed Project Conditions</b>	
Apartments Mid Rise	2,000,910
Enclosed Parking with Elevator	0
Fast Food Restaurant	3,020,120
General Office Building	1,213,760
High Turnover (Sit Down Restaurant)	2,917,450
Library	187,661
Medical Office Building	417,706
Other Non-Asphalt Surfaces	0
Parking Lot	0
Quality Restaurant	1,505,270
Regional Shopping Center	76,235
<b>Total</b>	<b>11,339,112</b>

Source: CalEEMod version 2020.4.

Note: kBTU = kilo British thermal units

<sup>1</sup> Based on information provided by the Applicant.

<sup>2</sup> Accounts for total natural gas use from proposed buildings. See Appendix C.

#### *Transportation Energy*

The proposed project would consume long-term transportation-related energy during operations from the use of motor vehicles. The efficiency of these motor vehicles is unknown, such as the average miles per gallon. Estimates of transportation energy use are based on the overall VMT and its associated transportation energy use. Project-related vehicle trips would be generated from visitors to the city center, employees, and residents. Additional vehicle trips to the project site include deliveries, waste pick up, and maintenance trips. As seen in Table 5.5-4, the annual VMT for the proposed project is estimated to be 26,214,739 miles. However, because the proposed project involves development of a mixed-use city center with a blend of residential, office, restaurant, and retail uses, it would provide more employment, shopping, and dining opportunities for residents



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of the City and opportunities to reside in an urbanized and walkable area with nearby amenities. In addition, in compliance with CALGreen, the proposed project would include bicycle racks and storage for employee use. Overall, the fuel demand generated by the proposed project would be less than 0.08 percent of the estimated gasoline fuel sales and 0.15 percent of estimated diesel fuel sales within the county (CEC 2022f).<sup>4</sup> These features of the proposed project would contribute to minimizing VMT and transportation-related fuel usage. Thus, it is expected that operation-related fuel usage associated with the proposed project would be more efficient than typical non-mixed-use development projects. Therefore, impacts would be less than significant with respect to operation-related fuel usage.

**Table 5.5-4 Project Annual Operation-Related Fuel Usage**

	Gasoline		Diesel		CNG		Electricity	
	Annual VMT	Annual Gallons	Annual VMT	Annual Gallons	Annual VMT	Annual Gallons	Annual VMT	Annual kWh
<b>Proposed Project<sup>1</sup></b>								
Passenger Vehicles	24,246,420	803,961	1,204,601	79,184	17,849	5,603	745,866	237,505

Source: EMFAC2017 v. 1.0.3. Annual VMT for existing conditions and project operations are based on CalEEMod default data. Accounts for net number trips based on LLG 2019.

Note: Numbers based on the preliminary information provided by the Applicant. Because the most current data shows a reduction in vehicle trips from the preliminary data, the model outputs are conservative.

**Level of Significance Before Mitigation:** With implementation of PPPs E-1 through E-5, Impact 5.5-1 would be less than significant.

**Impact 5.5-2: The project would not conflict with or obstruct a state or local plan for renewable energy or energy efficiency. [Threshold E-2])**

This part of the analysis discusses consistency of the proposed project with state plans pertaining to renewable energy and energy efficiency.

**California Renewables Portfolio Standard**

The statewide RPS goal is not directly applicable to individual development projects, but to utilities and energy providers, such as SCE, which is the utility that would provide all of the electricity needs for the proposed project. Compliance of SCE in meeting the RPS goals would ensure the State in meeting its objective in transitioning to renewable energy. The proposed project also would be subject to the Building Energy-Efficiency Standards and CALGreen. Because the new buildings associated with the proposed project would comply with the latest energy standards, they would offer an improvement over the existing buildings on-site. Therefore, implementation of the proposed project would not conflict with or obstruct plans for renewable energy and energy efficiency. Impacts would be less than significant.

**Level of Significance before Mitigation:** With implementation of PPP E-1, Impact 5.5-2 would be less than significant.

<sup>4</sup> Fuel sales data are for year 2020 for Orange County, which is the latest year available.

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#### 5.5.5 Cumulative Impacts

The areas considered for cumulative impacts to electricity and natural gas supplies are the service areas of SCE and SoCalGas, respectively, described above in Section 5.5.1.2. Other projects would generate increased electricity and natural gas demands. However, all projects within the SCE and SoCalGas service areas would be required to comply with the Building Energy Efficiency Standards and CALGreen, which would contribute to minimizing wasteful energy consumption and promoting renewable energy sources. Therefore, cumulative impacts of past, present, and foreseeable future development, together with the project, would be less than cumulatively significant, and project impacts would not be cumulatively considerable.

#### 5.5.6 Level of Significance Before Mitigation

Upon implementation of regulatory requirements and standard conditions of approval, some impacts would be less than significant: 5.5-1 and 5.5-2.

#### 5.5.7 Mitigation Measures

No mitigation measures are necessary because there were no significant impacts identified under the applicable thresholds.

#### 5.5.8 Level of Significance After Mitigation

All impacts are less than significant.

#### 5.5.9 References

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### 5.6 GEOLOGY AND SOILS

This section of the Draft Environmental Impact Report (DEIR) evaluates the potential for implementation of the Laguna Niguel New City Center Mixed Use Project to impact geological and soil resources, paleontological resources, or unique geologic features in the City of Laguna Niguel (City). The analysis in this section is based in part on the following technical report(s):

- *Updated Geotechnical Evaluation Report for CEQA, Proposed Laguna Niguel Town Center, 30102 Pacific Island Drive, Laguna Niguel, California*, Geotechnical Professionals Inc., October 2019 (updated August 13, 2021)
- *Geotechnical Review Sheet*, GMU Geotechnical, Inc. October 8, 2021.
- *Paleontological Resources Summary*, Cogstone, March, 2016

Complete copies of these studies are in DEIR Appendices G1 and G2, respectively.

#### 5.6.1 Environmental Setting

##### 5.6.1.1 REGULATORY BACKGROUND

###### Federal

###### *Earthquake Hazards Reduction Act*

The Earthquake Hazards Reduction Act was enacted in 1997 to “reduce the risks to life and property from future earthquakes in the United States through the establishment and maintenance of an effective earthquake hazards and reduction program.” To accomplish this, the act established the National Earthquake Hazard Reduction Program (NEHRP), which refined the description of agency responsibilities, program goals, and objectives. NEHRP’s mission includes improved understanding, characterization, and prediction of hazards and vulnerabilities; improvement of building codes and land use practices; risk reduction through post-earthquake investigations and education; development and improvement of design and construction techniques; improvement of mitigation capacity; and accelerated application of research results. NEHRP designates the Federal Emergency Management Agency as the lead agency of the program and assigns it several planning, coordinating, and reporting responsibilities. Programs under NEHRP help inform and guide planning and building code requirements such as emergency evacuation responsibilities and seismic code standards.

###### *Paleontological Resources*

A variety of federal statutes specifically address paleontological resources. They are generally applicable to a project if that project includes federally owned or federally managed lands or involves a federal agency license, permit, approval, or funding. The first of these is the Antiquities Act of 1906 (54 U.S.C. 320301-320303 and 18 U.S.C. 1866(b)), which calls for protection of historic landmarks, historic and prehistoric structures, as well as other objects of historic or scientific interest on federally administered lands, the latter of which would include fossils. The Antiquities Act both establishes a permit system for the disturbance of any object of antiquity on federal land and also sets criminal sanctions for violation of these requirements. The Antiquities Act was extended

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to specifically apply to paleontological resources by the Federal-Aid Highways Act of 1958. More recent federal statutes that address the preservation of paleontological resources include the National Environmental Policy Act, which requires the consideration of important natural aspects of national heritage when assessing the environmental impacts of a project (P.L. 91-190, 31 Stat. 852, 42 U.S.C. 4321–4327). The Federal Land Policy Management Act of 1976 (P.L. 94-579; 90 Stat. 2743, U.S.C. 1701–1782) requires that public lands be managed in a manner that will protect the quality of their scientific values, while Title 40 Code of Federal Regulations Section 1508.2 identifies paleontological resources as a subset of scientific resources. The Paleontological Resources Preservation Act (Title VI, Subtitle D, of the Omnibus Land Management Act of 2009) is the primary piece of federal legislation.

#### *Paleontological Resources Preservation Act*

The Paleontological Resources Preservation Act offers provisions of paleontological resources identified on federal, Native American, or state lands and guidance for their management and protection, and promotes public awareness and scientific education regarding vertebrate fossils. The law also requires federal agencies to develop plans for inventory, collection, and monitoring of paleontological resources and establishes stronger criminal and civil penalties for the removal of scientifically significant fossils on federal lands.

#### **State**

#### *California Alquist-Priolo Earthquake Fault Zoning Act*

The California Alquist-Priolo Earthquake Fault Zoning Act was signed into state law in 1972, and its primary purpose is to mitigate the hazard of fault rupture by prohibiting structures for human occupancy across the trace of an active fault. The act was a direct result of the 1971 San Fernando Earthquake, which caused extensive surface ruptures that damaged homes, commercial buildings, and other structures. The act requires the State Geologist (chief administrator of the California Geologic Survey [CGS]) to delineate regulatory zones known as “earthquake fault zones” along faults that are “sufficiently active” and “well defined” and to issue and distribute appropriate maps to all affected cities, counties, and state agencies for their use in planning and controlling new or renewed construction. Pursuant to this act, the California Code of Regulations (CCR) Section 3603(a) stipulated that structures for human occupancy are not permitted to be placed across the trace of an active fault. The act also prohibits structures for human occupancy within 50 feet of the trace of an active fault, unless proven by an appropriate geotechnical investigation and report that the development site is not underlain by active branches of the active fault (CCR Section 3603(a)). It further requires that cities and counties withhold development permits for sites within an earthquake fault zone until geologic investigations demonstrate that the sites are not threatened by surface displacement from future faulting (CCR Section 3603(d)).

#### *Seismic Hazard Mapping Act*

The Seismic Hazard Mapping Act was adopted by the state in 1990 to protect the public from the effects of earthquake hazards other than surface fault rupture, such as strong ground shaking, liquefaction, seismically induced landslides, or other ground failure. The goal of the act is to minimize loss of life and property by identifying and mitigating seismic hazards. The CGS prepares seismic hazard zones maps and provides them

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to local governments. The maps identify areas susceptible to amplified shaking, liquefaction, earthquake-induced landslides, and other ground failures.

### *California Building Code*

Current law states that every local agency enforcing building regulations, such as cities and counties, must adopt the provisions of the California Building Code (CBC) within 180 days of its publication. The publication date of the CBC is established by the California Building Standards Commission, and the code is under 24 CCR Part 2. The CBC provides minimum standards to protect property and public safety by regulating the design and construction of excavations, foundations, building frames, retaining walls, and other building elements to mitigate the effects of seismic shaking and adverse soil conditions. The CBC contains provisions for earthquake safety based on factors including occupancy type, the types of soil and rock on-site, and the strength of ground shaking with a specified probability at a site. The 2019 CBC took effect on January 1, 2020.

### *Requirements for Geotechnical Investigations*

Requirements for geotechnical investigations are in the CBC's Appendix J, Section J104. Additional requirements for subdivisions requiring tentative and final maps and for other specified types of structures are in California Health and Safety Code Sections 17953 to 17955 and in CBC Section 1802. Testing of samples from subsurface investigations is required, such as from borings or test pits. Studies must be done as needed to evaluate slope stability, soil strength, position and adequacy of load-bearing soils, the effect of moisture variation on load-bearing capacity, compressibility, liquefaction, differential settlement, and expansiveness. CBC Section J106 sets forth requirements for inspection and observation during and after grading.

### *State Water Resources Control Board General Construction Permit*

The SWRCB has adopted a statewide Construction General Permit (Order No. 2012-0006-DWQ) for stormwater discharges associated with construction activity. These regulations prohibit the discharge of stormwater from construction projects that include one acre or more of soil disturbance. Construction activities subject to this permit include clearing, grading, and other disturbance to the ground, such as stockpiling or excavation, that result in soil disturbance of at least one acre. Individual developers are required to submit permit registration documents to the SWRCB for coverage under permit prior to the start of construction. The documents include a notice of intent, risk assessment, site map, Stormwater Pollution Prevention Plan (SWPPP), annual fee, and a signed certification statement. They are submitted electronically to the SWRCB via the Stormwater Multiple Application and Report Tracking System's website.

The Construction General Permit requires all dischargers to (1) develop and implement a SWPPP, which specifies best management practices (BMP) to be used during construction of the project; (2) eliminate or reduce non-storm water discharge to stormwater conveyance systems; and (3) develop and implement a monitoring program of all specified BMPs. The two major objectives of the SWPPP are to (1) help identify the sources of sediment and other pollutants that affect the water quality of stormwater discharges and (2) to describe and ensure the implementation of BMPs to reduce or eliminate sediment and other pollutants in stormwater and other water discharges.

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#### Local

##### *Laguna Niguel General Plan*

The Seismic/Public Safety Element of the Laguna Niguel General Plan includes the following policies, and actions that relate to geology and soils:

**Policy 1.1.** Mitigate potential adverse impacts of geologic and seismic hazards. Actions

**Action 1.1.1:** Require site specific geologic and soils studies as part of the approval process for new development. This analysis must identify on-site geologic hazards, determine risk potential and provide mitigation measures for all pertinent geologic hazards.

**Action 1.1.3:** Maintain existing standards and requirements for grading and construction to eliminate the potential for erosion, slope failure, landslides, and other geologic hazards.

**Action 1.1.4:** Maintain existing building safety and design standards for protection from geologic and seismic related events.

##### *Laguna Niguel Municipal Code*

Article 8, Grading and Excavation Code, regulates grading, drainage, and hillside construction. Section 8-1-805 requires grading permits for all project sites requiring excavation, fills, and paving. Each application for a grading permit requires plans and specifications and applicable soils engineering and engineering geology reports. Section 8-1-836 requires that erosion control plans be prepared in accordance with the City's Grading Manual and submitted to the Building Official for approval for projects under grading permits.

Article 2 (2019 Edition of the California Building Code) adopts the 2019 CBC by reference.

#### 5.6.1.2 EXISTING CONDITIONS

##### **Geologic Setting**

The project site is in the Los Angeles Basin, which is part of the Peninsular Ranges Geomorphic Province of California. The Peninsular Ranges are characterized by a series of northwest-trending mountain ranges separated by valleys.

More locally, the site is within the San Joaquin Hills, which consist of moderate to steep hillside terrain underlain by sedimentary bedrock. The San Joaquin Hills are traversed by streams and drainage divides that slope south and southwest toward the coastline. Typically, the drainages are partially filled by poorly consolidated colluvial and alluvial deposits overlying the deeper formational bedrock materials.



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### Faulting and Seismic Hazards

Laguna Niguel is exposed to risk from multiple earthquake fault zones. Faults near the project site include the Newport-Inglewood and Palos Verdes faults (see Figure 5.6-1). At its closest approach, the Newport-Inglewood fault is about four miles east of the project site. The Palos Verdes fault is about five miles south of the site at its closest approach.

The 1933 Long Beach earthquake was on the Newport-Inglewood Fault immediately offshore of the Balboa Peninsula in Newport Beach (SCEDC 2020). Other notable earthquakes affecting the greater Los Angeles region within the last 50 years are:

- The 1971 San Fernando Earthquake, magnitude 6.6, caused 65 deaths and over \$500 million in property damage.
- The 1992 Landers Earthquake, magnitude 7.3, caused three fatalities.
- The 1992 Big Bear Earthquake, magnitude 6.4.
- The 1994 Northridge Earthquake, magnitude 6.7, caused at least 57 fatalities and property damage estimated between \$13 billion and \$40 billion.

### *Fault Rupture*

The project is not in an Alquist-Priolo Earthquake Fault Zone, so the potential for surface fault rupture is very low (CGS 2010).

### *Ground Shaking*

Laguna Niguel is in a highly active seismic region. Although there are no active or potentially active faults in the City, there are two active faults in the vicinity of the City. The Newport-Inglewood fault angles from offshore near Dana Point and passes through the northwestern portion of Orange County. In 1933 the destructive Long Beach Earthquake was on the fault just offshore of Newport Beach. The event caused considerable damage and a high loss of life. Since then the various strands of the fault have produced many minor earthquakes at a magnitude of 4.5 or less. The Palos Verdes fault is usually described as three individual segments, namely the San Pedro Bay, the onshore, and the Santa Monica Bay segments. Seismicity associated with the fault is relatively low, and most events recorded are microearthquakes.

### *Liquefaction and Related Ground Failure*

Strong ground shaking in sediment layers that are saturated with groundwater may cause them to lose strength and behave as a fluid. Liquefaction near or at the ground surface can result in property damage and structural failure. Surface ground failure usually takes the form of lateral spreading, flow failures, ground oscillation, and/or general loss of bearing strength. Sand boils (injections of fluidized sediment) commonly accompany these types of failure.

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Three major factors determine a region's susceptibility to liquefaction:

- Intensity and duration of ground shaking.
- Age and texture of the alluvial sediments. Generally, the younger, less compacted sediments are more susceptible to liquefaction. The texture of sediment also plays a role. Sand and silty sands deposited in river channels and floodplains tend to be more susceptible to liquefaction than coarser or finer grained alluvial materials.
- Depth to groundwater. Earthquake-induced liquefaction requires that sediments be saturated. In general, groundwater depths shallower than 10 feet to the surface cause the highest liquefaction susceptibility.

The California Division of Conservation (CDC) does not identify the project site as a liquefaction hazard zone (CDC 2015). In addition, the soils underlying the proposed site are primarily high plasticity, cohesive fills and bedrock materials.

#### *Earthquake-Induced Landslides*

Slope failures in the form of landslides are common during strong seismic shaking in areas of steep hills. The ground surface elevation across the site varies from an elevation of about 305 to 370 feet. A 40- to 50-foot-high ascending slope extends along the western and southwestern property lines and is a landslide hazard identified by the CDC, and the project site is in a landslide hazard zone (CDC 2015).

#### **Geologic Hazards**

##### *Expansive Soils*

Expansive soils generally consist of clays that can shrink and swell with changes in moisture content. Movement of soils in response to shrinkage and swelling has the potential to impact near-surface improvements such as lightly loaded foundations and floor slabs. Based on a data review of the project site, near-surface soils are anticipated to have high to very high expansion potential.

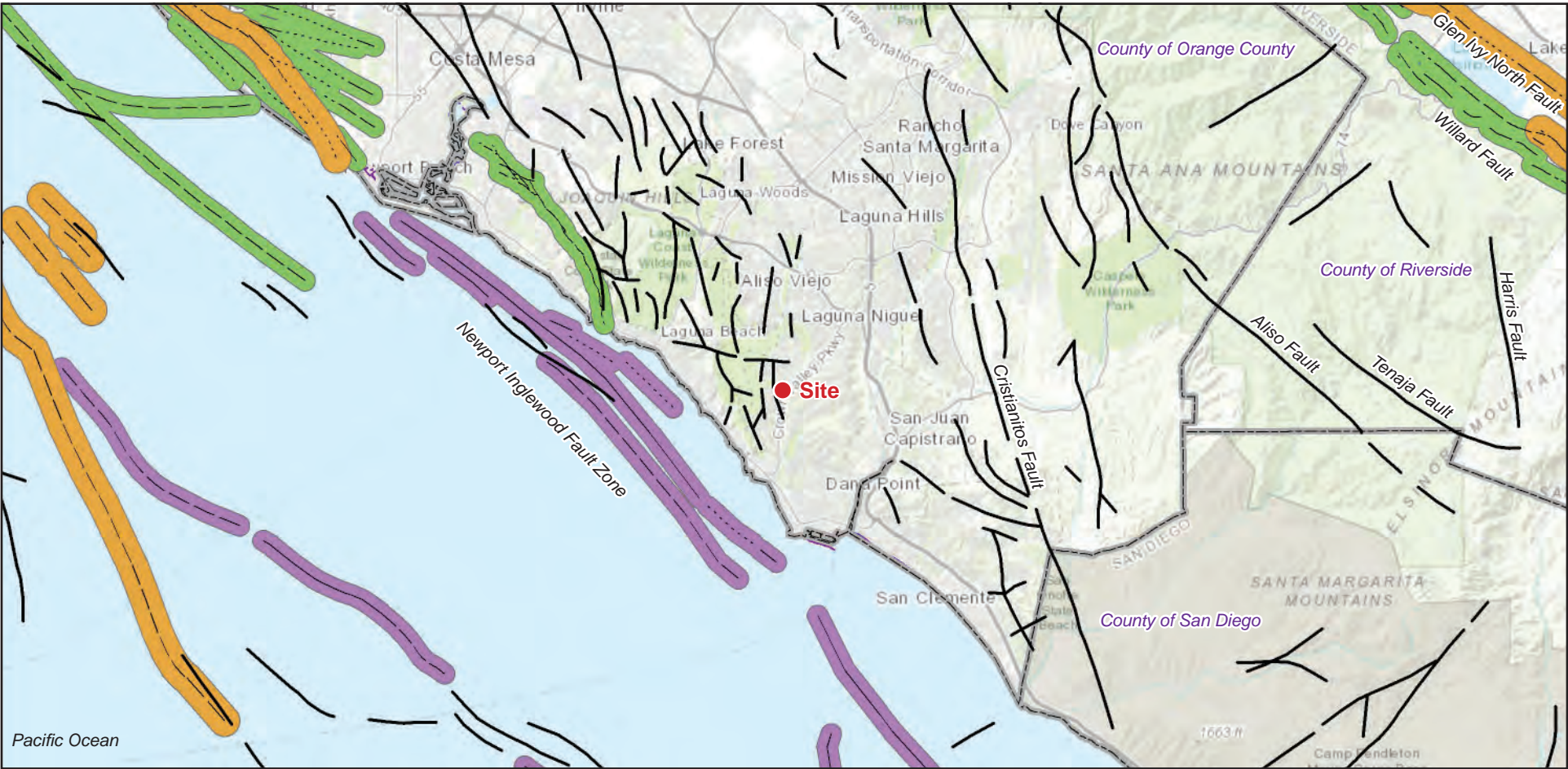
##### *Collapsible Soils*

Collapsible soils generally consist of relatively dry, low-density materials that become weaker and more compressible with the addition of water or excessive loading. Due to the cohesive and very stiff to hard nature of the on-site soils, the potential for collapse of soils at the project site is considered very low.

##### *Subsidence*

Subsidence occurs when a large portion of land sinks, usually due to the withdrawal of groundwater, oil, or natural gas. Soils that are particularly subject to subsidence include those with high silt or clay content. The site is not in an area of known ground subsidence (USGS 2019). No large-scale extraction of groundwater, gas, oil, or geothermal energy has occurred, is occurring now, or is planned to occur in the future at or near the site. There appears to be little or no potential for ground subsidence due to withdrawal of fluids or gases at the site.

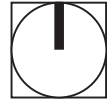
Figure 5.6-1 - Fault Map  
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-  Holocene fault displacement (during past 11,700 years) without historic record
-  Late Quaternary fault displacement (during past 700,000 years)
-  Quaternary fault (age undifferentiated; Quaternary Period extends from the present to 1.6 million years before present)
-  Pre-Quaternary fault (older than 1.6 million years) or fault without recognized Quaternary displacement

NOTE: Fault traces on land are indicated by solid lines where well located, by dashed lines where approximately located or inferred, and by dotted lines where concealed by younger rocks or by lakes or bays.

Source: ESRI, 2019



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### **GEOLOGY AND SOILS**

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## 5. Environmental Analysis

### GEOLOGY AND SOILS

#### Paleontological Resources

No paleontological resources are known to exist within the project area. The closest vertebrate fossil locality identified by the Natural History Museum of Los Angeles County (NHMLA) is LACM 4166, found nearby in the Capistrano Formation, south of the project area along Crown Valley Parkway and north of the intersection with Paseo del Niguel. LACM 4166 included fossil specimens of bonito shark (*Isurus*), bull shark (*Carcharhinus*), undetermined bony fish (*Osteichthyes*), sea lion (*Otariidae*), and porpoise (*Phocoenidae*). The NHMLA also noted several fossil localities within the Capistrano Formation (LACM 4337, 4950, and 5468) north of the project site along Alicia Parkway. These fossil localities included undetermined specimens of sea lions, whales (*Cetacea*), and sea cow (*Hydrodamalis cuestas*).

Paleontological monitoring was conducted for the construction of the Crestavilla Retirement and Assisted Living Community project located at the intersection of Crown Valley Parkway and Niguel Road about 0.30-mile northeast of the project site. Several fossils were discovered within the Capistrano Formation during construction and removed from the construction site in accordance with the fossil treatment plan (PCR 2016).

#### 5.6.2 Thresholds of Significance

According to Appendix G of the CEQA Guidelines and the City's CEQA Manual, a project would normally have a significant effect on the environment if the project would:

- G-1 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.
- G-2 Result in substantial soil erosion or the loss of topsoil.
- G-3 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.
- G-4 Be located on expansive soil, as defined in Table 18-1B of the Uniform building Code (1994), creating substantial direct or indirect risks to life or property.
- G-5 Have soils incapable of adequately supporting the use of septic tanks or alternative wastewater disposal systems where sewers are not available for the disposal of waste water.

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G-6 Directly or indirectly destroy a unique paleontological resource or site or unique geologic feature?

### 5.6.3 Plans, Programs, and Policies

- PPP GEO-1 The proposed project will be designed and constructed in accordance with the Laguna Niguel Building Code, which adopts the California Building Code (CBC), which is based on the International Building Code. New construction, alteration, or rehabilitation shall comply with applicable ordinances of the City and/or the most recent City building and seismic codes in effect at the time of project design. In accordance with Section 1803.2 of the 2019 CBC, a final geotechnical investigation is required based on the final grading plans and must evaluate soil classification, slope stability, soil strength, position and adequacy of load-bearing soils, the effect of moisture variation on soil-bearing capacity, compressibility, liquefaction, and expansiveness, as determined by the City building official. The final geotechnical investigation must be prepared by registered professionals (i.e., California Registered Civil Engineer or Certified Engineering Geologist). Recommendations from the preliminary geotechnical investigation and the final geotechnical investigation shall be incorporated into the final Geotechnical Design Report to provide design details on structural design and construction for earthwork, grading, slopes, foundations, pavements, and other necessary geologic and seismic considerations that must be incorporated into the design and construction of the proposed project.
- PPP GEO-2 The proposed project shall apply for a grading permit, which requires the preparation of an erosion control plan prepared in accordance with the City's Grading Manual.
- PPP HYD-1 The proposed project shall be constructed in accordance with the General Permit for Storm Water Discharges Associated with the Construction and Land Disturbance Activities, NPDES No. CAS000002. Compliance requires filing a notice of intent, a risk assessment, a site map, a Storm Water Pollution Prevention Plan and associated best management practices, an annual fee, and a signed certification statement. Also, the County requires preparation of an erosion and sediment control plan for projects that disturb more than one acre of land and implementation of best management practices to control erosion, debris, and construction-related pollutants.
- PPP HYD-2 The MS4 permit requires new development and redevelopment projects to:
- Control contaminants into storm drain systems.
  - Educate the public about stormwater impacts.
  - Detect and eliminate illicit discharges.
  - Control runoff from construction sites.
  - Implement best management practices and site-specific runoff controls and treatments for new development and redevelopment.

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PPP HYD-3 As required by the City of Laguna Niguel's municipal ordinances on stormwater quality management, the proposed project must submit a priority-project-specific water quality management plan to the City for approval before the City issues any building or grading permits.

## 5.6.4 Environmental Impacts

### 5.6.4.1 IMPACT ANALYSIS

The following impact analysis addresses thresholds of significance. The applicable thresholds are identified in brackets after the impact statement.

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**Impact 5.6-1: Project occupants would be subject to strong ground shaking; however, project development would not subject people or structures to seismic-related ground failure, including liquefaction and landslides. [Threshold G-1 (i), (ii), (iii), (iv)]**

---

Laguna Niguel is exposed to risk from multiple earthquake fault zones. Active faults near the project site include the Newport-Inglewood and the Palos Verdes fault. The Newport-Inglewood Fault is four miles from the project site. Based on the distance, this fault would not cause adverse impacts from potential rupture, and impacts would be less than significant

As is the case with most locations in Southern California, the subject site is in a seismically active area. The type and magnitude of seismic hazards that may affect the site are dependent on both the distance to causative faults and the intensity and duration of the seismic event. The subject site will likely experience strong ground shaking caused by earthquakes on active, regional faults in the future. A geotechnical investigation of the site conditions and an assessment of potential development was performed and documented in a preliminary geotechnical investigation report titled "*Geotechnical Evaluation Report for CEQA Purposes*" by Paul R. Schade, G.E. 2371, Principal, Geotechnical Professionals Inc. The report was peer reviewed by the City's geotechnical consultant, GMU Geotechnical, Inc., and conditionally approved (report and conditional approval included in Appendix G). Prior to issuance of any future grading permit for project development, a final Geotechnical Design Report in accordance with the Laguna Niguel Building Code (i.e., proper earthquake design and engineering) would be required as a standard condition of approval for the proposed project, and included as PPP GEO-1. The final Geotechnical Design Report would supplement the preliminary *Geotechnical Evaluation Report for CEQA Purposes* and would incorporate recommendations from the preliminary report and provide more detailed analyses and geotechnical recommendations for design and construction. The report would include requirements pertaining to structural design and construction recommendations for earthwork, grading, slopes, foundations, pavements, and other necessary geologic and seismic considerations. The Geotechnical Design Report would reduce potential ground-shaking hazard impacts to less than significant.

The CDC does not identify the project site as a liquefaction hazard zone. In addition, the subsurface soils consist primarily of high plasticity, cohesive fills and bedrock materials. Therefore, liquefaction is considered unlikely at this site and impacts are less than significant.

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The slopes ascending from the western and southwestern property boundaries are mapped in an area designated by the State Geologist as a "zone of required investigation" due to the potential for earthquake-induced landslides. While the majority of the western and southwestern slopes are off-site, the proposed project would include the construction of retaining structures on the project site to support the slopes where they extend onto the site and establish adequate offsets between the base of the slopes and the proposed site structures. Retaining structures along the property line within the slope would consist of a soldier pile or equivalent retaining wall designed to resist static and seismic earth pressures imposed by the adjacent slope. The final Geotechnical Design Report would evaluate the suitability of a soldier pile retaining wall, providing geotechnical design parameters or recommendations for an equally or more effective design solution. In addition, the 2019 CBC requires a minimum lateral offset between the toe of a descending slope and the face of buildings at the base of the slope to be the smaller of 15 feet or one-half the height of the slope. The final Geotechnical Design Report would evaluate the stability of the on-site and adjacent slopes, confirm the suitability of the offset, or provide an equally or more effective design solution.

***Level of Significance Before Mitigation:*** With the implementation of PPPs GEO-1 and GEO-2, Impact 5.6-1 would be less than significant.

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**Impact 5.6-2: The proposed project would not result in substantial soil erosion or loss of topsoil [Thresholds G-2]**

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See the analysis of Impact 5.9-1.

***Level of Significance Before Mitigation:*** With the implementation of PPPs HYD-1 through 3, Impact 5.6-2 would be less than significant.

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**Impact 5.6-3: The proposed project would not result in on- or off-site landslide, lateral spreading, subsidence, liquefaction, or collapse and is located on expansive soils that would not create a direct or indirect risk to life and property. [Thresholds G-3 and G-4]**

---

As discussed in Impact 5.6-1, impacts from liquefaction and landslides are less than significant. Furthermore, because the potential for seismic-related liquefaction is considered unlikely at the site, the corresponding potential for lateral spreading to occur during liquefaction is also considered unlikely.

As mentioned under section 5.6.1.2, the potential for collapse of soils at the project site is considered very low, and there appears to be little or no potential for ground subsidence due to withdrawal of fluids or gases at the site.

Highly expansive soils were encountered up to depths of 30 feet in recent and previous explorations at the site. The project design would implement appropriate controls to minimize the impact of expansive soils on the proposed project, which would be provided in the design-level geotechnical report. Measures to reduce the adverse impact of expansive soils would include:

- In-place chemical treatment of the expansive soils (cement or lime treatment, or equivalent).



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- Removal and replacement of the expansive soils with non-expansive import soils where the potential for shrink/swell is not tolerable.
- Design of foundations, floor slabs, and hardscape to resist the potential swell pressures of the expansive soils by increasing concrete reinforcing or using post-tension methods as outlined in the California Building Code.

These measures would decrease the impact from expansive soils to less than significant.

**Level of Significance Before Mitigation:** Less than significant.

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### **Impact 5.6-4: The proposed project would not include the installation of septic tanks. [Threshold G-5]**

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The project site has sewer connections maintained by the Moulton Niguel Water District. The project would connect to the existing sewer lines in Alicia Parkway, Pacific Island Drive, and Crown Valley Parkway to accommodate additional flows generated by the proposed development. The project would not use alternative wastewater disposal systems such as septic tanks, and no impact would occur.

**Level of Significance Before Mitigation:** No impact.

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### **Impact 5.6-5: The project could directly or indirectly destroy a unique paleontological resource or site or unique geologic feature. [Threshold G-6]**

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No paleontological resources are known to exist within the project area. The Capistrano Formation underlies the project area. The closest vertebrate fossil locality identified by the NHMLA is LACM 4166 in the Capistrano Formation, found approximately 0.4-mile south of the project site along Crown Valley Parkway and north of the intersection with Paseo del Niguel. LACM 4166 included fossil specimens of bonito shark (*Isurus*), bull shark (*Carcharhinus*), undetermined bony fish (*Osteichthyes*), sea lion (*Otariidae*), and porpoise (*Phocoenidae*).

Farther from the project site, several fossil localities have been found in the Capistrano Formation north of the project area along Alicia Parkway. These included specimens of sea lions, whales (*Cetacea*), and sea cow (*Hydrodamalis cuestas*). Paleontological monitoring was conducted for the Crestavilla Retirement and Assisted Living Community construction project located at the intersection of Crown Valley Parkway and Niguel Road. Several fossils were discovered during construction and removed from the construction site in accordance with the fossil treatment plan (PCR 2016).

Although no resources were found on-site, the majority of the site has not been excavated or graded and could have undiscovered paleontological resources. Construction of the proposed project would require earthwork activities, such as grading, to ensure the proper base and slope for the proposed buildings. The potential exists that unique paleontological resources may be unearthed. Therefore, development of the proposed project has the potential to result in a significant impact. Mitigation measures GEO-1 would include monitoring in areas identified as likely to contain paleontological resources during project construction and would require appropriate treatment of unearthed paleontological resources during construction. Potential impacts to

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unknown paleontological resources would be mitigated to less than significant through the implementation of Mitigation Measures GEO-1.

*Level of Significance Before Mitigation:* Potentially significant.

#### 5.6.5 Cumulative Impacts

Geology and soils impacts related to the proposed project would be specific to the project site and its users and would not be common or contribute to the impacts (or shared with, in an additive sense) on other sites. Compliance with applicable state and local building regulations would be required of all development in the city. Individual projects would be designed and built in accordance with applicable standards in the CBC and the individual building regulations of local jurisdictions, including pertinent seismic design criteria. Site-specific geologic hazards would be addressed by the final Geotechnical Design Report required for each building. These geologic investigations would identify the specific geologic and seismic characteristics on a site and provide guidelines for engineering design and construction to maintain the structural integrity of proposed structures and infrastructure. Therefore, compliance with applicable state and local building regulations and standard engineering practices related to seismic and geologic hazard reduction would prevent significant cumulative adverse impacts associated with geologic and seismic hazards.

Implementation of the proposed project in conjunction with other planned projects in the city could result in cumulative impacts to paleontological resources. However, other development projects would be required to undergo discretionary review and would be subject to the same resource protection requirements and CEQA review as the proposed project. For example, other development projects may require some degree of ground disturbance but would be required to comply with applicable regulations, which would minimize the potential to disturb significant paleontological resources. If paleontological resources were found, they would be addressed through the necessary testing, archiving, and recovery prior to development of the site. Additionally, the proposed project has incorporated mitigation that would reduce the potential for the project to contribute to cumulative impacts to paleontological resources. In consideration of the preceding factors, the project's contribution to cumulative paleontological resource impacts would be less than cumulatively considerable; therefore, project impacts would not be significant.

#### 5.6.6 Level of Significance Before Mitigation

Impact 5.6-4 would have no impact.

Upon implementation of regulatory requirements, Impacts 5.6-1, 5.6-2, and 5.6-3 would be less than significant.

Without mitigation, one impact would be **potentially significant**:

- **Impact 5.6-5** Excavation or grading could uncover paleontological resources.

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### 5.6.7 Mitigation Measures

#### Impact 5.6-5

GEO-1 Prior to the issuance of grading permits, and for any subsequent permit involving excavation to increased depths, the project applicant shall provide a letter to the City of Laguna Niguel from a qualified paleontologist and paleontological monitor who meet the Secretary of the Interior's Professional Qualifications Standards. The letters shall state that the applicant has retained these individuals, and that the consultant(s) will monitor all grading and significant ground-disturbing activities in areas identified as likely to contain paleontological resources during project construction. These areas are defined as all excavations of previously undisturbed sediments in areas mapped as the Capistrano Formation and in areas of Quaternary alluvium where excavations would exceed depths of five feet.

The qualified paleontologist and/or paleontological monitor shall attend all pre-grade meetings to ensure all construction personnel that would conduct grading and significant ground-disturbing activities receive training to recognize fossil materials in the event any are uncovered during earthwork.

The qualified paleontological monitor shall be equipped to salvage fossils and samples of sediments as they are unearthed to avoid construction delays and shall be empowered to temporarily halt or divert grading activities in order to recover the fossil specimens. The paleontological monitor may establish a protected buffer around a discovery for the duration of recovery of the discovery.

If previously undiscovered paleontological resources are discovered on-site, suspension of ground disturbances in the vicinity of the discoveries shall not be lifted until the paleontological monitor has evaluated discoveries to assess whether they are classified as unique paleontological resources pursuant to the California Environmental Quality Act (CEQA) and authorized the resumption of construction activities. Recovered specimens shall be prepared to a point of identification and permanent preservation, including washing of sediments to recover small invertebrates and vertebrates. Found specimens shall then be curated into the John D. Cooper Center in Santa Ana or a responsible public or private institution with a suitable repository willing to and capable of accepting and housing the resource. If no museum or repository is willing to accept the resource, it shall be considered the property of the City and may be stored, disposed of, transferred, exchanged, or otherwise handled by the City at its discretion to avoid a significant impact.

Upon completion of construction activities, the qualified paleontological monitor shall prepare a report of paleontological resource findings within 30 days of construction completion. The report shall append itemized inventory of recovered resources, documentation of each locality, and interpretation of recovered fossils. The report and

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inventory, when submitted and approved by the City, will signify completion of the program to mitigate impacts to paleontological resources.

#### 5.6.8 Level of Significance After Mitigation

Implementation of mitigation measure GEO-1 would reduce potential impacts to paleontological resources to a level that is less than significant. Therefore, no significant unavoidable adverse impacts relating to geology and soils have been identified.

#### 5.6.9 References

California Department of Conservation (CDC). 2015. CGS information Warehouse: Regulatory Maps. <https://maps.conservation.ca.gov/cgs/informationwarehouse/>.

California Geological Survey (CGS). 2010. Fault Activity Map of California. <http://maps.conservation.ca.gov/cgs/fam/>.

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United States Geological Survey (USGS). 2019, September 3 (accessed). Areas of Land Subsidence in California. [https://ca.water.usgs.gov/land\\_subsidence/california-subsidence-areas.html](https://ca.water.usgs.gov/land_subsidence/california-subsidence-areas.html).

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### 5.7 GREENHOUSE GAS EMISSIONS

This section of the Draft Environmental Impact Report (DEIR) evaluates the potential for implementation of the Laguna Niguel City Center Mixed Use Project (proposed project) to cumulatively contribute to greenhouse gas (GHG) emissions impacts. Because no single project is large enough to result in a measurable increase in global concentrations of GHG, climate change impacts of a project are considered on a cumulative basis.

This evaluation is based on the methodology recommended by the South Coast Air Quality Management District (South Coast AQMD). GHG emissions modeling was conducted using the California Emissions Estimator Model (CalEEMod), Version 2020.4, and model outputs are in Appendix C of this DEIR.

#### Terminology

The following are definitions for terms used throughout this section.

- **Greenhouse gases (GHG).** Gases in the atmosphere that absorb infrared light, thereby retaining heat in the atmosphere and contributing to a greenhouse effect.
- **Global warming potential (GWP).** Metric used to describe how much heat a molecule of a greenhouse gas absorbs relative to a molecule of carbon dioxide (CO<sub>2</sub>) over a given period of time (20, 100, and 500 years). CO<sub>2</sub> has a GWP of 1.
- **Carbon dioxide-equivalent (CO<sub>2</sub>e).** The standard unit to measure the amount of greenhouse gases in terms of the amount of CO<sub>2</sub> that would cause the same amount of warming. CO<sub>2</sub>e is based on the GWP ratios between the various GHGs relative to CO<sub>2</sub>.
- **MTCO<sub>2</sub>e.** Metric ton of CO<sub>2</sub>e.
- **MMTCO<sub>2</sub>e.** Million metric tons of CO<sub>2</sub>e.

#### 5.7.1 Environmental Setting

##### 5.7.1.1 GREENHOUSE GASES AND CLIMATE CHANGE

Scientists have concluded that human activities are contributing to global climate change by adding large amounts of heat-trapping gases, known as GHGs, to the atmosphere. The primary source of these GHGs is fossil fuel use. The Intergovernmental Panel on Climate Change (IPCC) has identified four major GHGs—water vapor, carbon dioxide (CO<sub>2</sub>), methane (CH<sub>4</sub>), and ozone (O<sub>3</sub>)—that are the likely cause of an increase in global average temperatures observed in the 20th and 21st centuries. Other GHGs identified by the IPCC that contribute to global warming to a lesser extent are nitrous oxide (N<sub>2</sub>O), sulfur hexafluoride (SF<sub>6</sub>),

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hydrofluorocarbons, perfluorocarbons, and chlorofluorocarbons (IPCC 2001).<sup>1,2</sup> The major GHGs applicable to the proposed project are briefly described.

- **Carbon dioxide (CO<sub>2</sub>)** enters the atmosphere through the burning of fossil fuels (oil, natural gas, and coal), solid waste, trees and wood products, and respiration, and also as a result of other chemical reactions (e.g., manufacture of cement). Carbon dioxide is removed from the atmosphere (sequestered) when it is absorbed by plants as part of the biological carbon cycle.
- **Methane (CH<sub>4</sub>)** is emitted during the production and transport of coal, natural gas, and oil. Methane emissions also result from livestock and other agricultural practices and from the decay of organic waste in landfills and water treatment facilities.
- **Nitrous oxide (N<sub>2</sub>O)** is emitted during agricultural and industrial activities as well as during the combustion of fossil fuels and solid waste.

GHGs are dependent on the lifetime, or persistence, of the gas molecule in the atmosphere. Some GHGs have a stronger greenhouse effect than others. These are referred to as high GWP gases. The GWP of GHG emissions are shown in Table 5.7-1, *GHG Emissions and Their Relative Global Warming Potential Compared to CO<sub>2</sub>*. The GWP is used to convert GHGs to CO<sub>2</sub>-equivalence (CO<sub>2</sub>e) to show the relative potential that different GHGs have to retain infrared radiation in the atmosphere and contribute to the greenhouse effect. For example, under IPCC's Fourth Assessment Report (AR4) GWP values for CH<sub>4</sub>, 10 MT of CH<sub>4</sub> would be equivalent to 250 MT of CO<sub>2</sub>.

**Table 5.7-1 GHG Emissions and Their Relative Global Warming Potential Compared to CO<sub>2</sub>**

GHGs	Second Assessment Report Global Warming Potential Relative to CO <sub>2</sub> <sup>1</sup>	Fourth Assessment Report Global Warming Potential Relative to CO <sub>2</sub> <sup>1</sup>	Fifth Assessment Report Global Warming Potential Relative to CO <sub>2</sub> <sup>1</sup>
Carbon Dioxide (CO <sub>2</sub> )	1	1	1
Methane <sup>2</sup> (CH <sub>4</sub> )	21	25	28
Nitrous Oxide (N <sub>2</sub> O)	310	298	265

Source: IPCC 1995, 2007, 2013.

Notes: The IPCC published updated GWP values in its Fifth Assessment Report (AR5) that reflect new information on atmospheric lifetimes of GHGs and an improved calculation of the radiative forcing of CO<sub>2</sub>. However, GWP values identified in AR4 are used by South Coast AQMD to maintain consistency in statewide GHG emissions modeling. In addition, the 2017 Scoping Plan Update was based on the GWP values in AR4.

<sup>1</sup> Based on 100-year time horizon of the GWP of the air pollutant compared to CO<sub>2</sub>.

<sup>2</sup> The methane GWP includes direct effects and indirect effects due to the production of tropospheric ozone and stratospheric water vapor. The indirect effect due to the production of CO<sub>2</sub> is not included.

<sup>1</sup> Water vapor (H<sub>2</sub>O) is the strongest GHG and the most variable in its phases (vapor, cloud droplets, ice crystals). However, water vapor is not considered a pollutant because it is considered part of the feedback loop rather than a primary cause of change.

<sup>2</sup> Black carbon contributes to climate change both directly, by absorbing sunlight, and indirectly, by depositing on snow (making it melt faster) and by interacting with clouds and affecting cloud formation. Black carbon is the most strongly light-absorbing component of particulate matter (PM) emitted from burning fuels such as coal, diesel, and biomass. Reducing black carbon emissions globally can have immediate economic, climate, and public health benefits. California has been an international leader in reducing emissions of black carbon, with close to 95 percent control expected by 2020 due to existing programs that target reducing PM from diesel engines and burning activities (CARB 2017a). However, state and national GHG inventories do not include black carbon due to ongoing work resolving the precise global warming potential of black carbon. Guidance for CEQA documents does not yet include black carbon.

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### Human Influence on Climate Change

For approximately 1,000 years before the Industrial Revolution, the amount of GHGs in the atmosphere remained relatively constant. During the 20th century, however, scientists observed a rapid change in the climate and the quantity of climate change pollutants in the Earth's atmosphere that is attributable to human activities. The amount of CO<sub>2</sub> in the atmosphere has increased by more than 35 percent since preindustrial times and has increased at an average rate of 1.4 parts per million per year since 1960, mainly due to combustion of fossil fuels and deforestation (IPCC 2007). These recent changes in the quantity and concentration of climate change pollutants far exceed the extremes of the ice ages, and the global mean temperature is warming at a rate that cannot be explained by natural causes alone. Human activities are directly altering the chemical composition of the atmosphere through the buildup of climate change pollutants (CAT 2006). In the past, gradual changes in the earth's temperature changed the distribution of species, availability of water, etc. However, human activities are accelerating this process so that environmental impacts associated with climate change no longer occur in a geologic time frame but within a human lifetime (IPCC 2007).

Like the variability in the projections of the expected increase in global surface temperatures, the environmental consequences of gradual changes in the Earth's temperature are hard to predict. Projections of climate change depend heavily upon future human activity. Therefore, climate models are based on different emission scenarios that account for historical trends in emissions and on observations of the climate record that assess the human influence of the trend and projections for extreme weather events. Climate-change scenarios are affected by varying degrees of uncertainty. For example, there are varying degrees of certainty on the magnitude of the trends for:

- Warmer and fewer cold days and nights over most land areas.
- Warmer and more frequent hot days and nights over most land areas.
- An increase in frequency of warm spells/heat waves over most land areas.
- An increase in frequency of heavy precipitation events (or proportion of total rainfall from heavy falls) over most areas.
- Larger areas affected by drought.
- Intense tropical cyclone activity increases.
- Increased incidence of extreme high sea level (excluding tsunamis).

### Potential Climate Change Impacts for California

Observed changes over the last several decades across the western United States reveal clear signs of climate change. Statewide, average temperatures increased by about 1.7°F from 1895 to 2011, and warming has been greatest in the Sierra Nevada (CCCC 2012). The years from 2014 through 2016 have shown unprecedented temperatures with 2014 being the warmest (OEHHA 2018). By 2050, California is projected to warm by approximately 2.7°F above 2000

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### GREENHOUSE GAS EMISSIONS

averages, a threefold increase in the rate of warming over the last century. By 2100, average temperatures could increase by 4.1 to 8.6°F, depending on emissions levels (CCCC 2012).

In California and western North America, observations of the climate have shown: 1) a trend toward warmer winter and spring temperatures; 2) a smaller fraction of precipitation falling as snow; 3) a decrease in the amount of spring snow accumulation in the lower and middle elevation mountain zones; 4) advanced shift in the timing of snowmelt of 5 to 30 days earlier in the spring; and 5) a similar shift (5 to 30 days earlier) in the timing of spring flower blooms (CAT 2006). Overall, California has become drier over time, with five of the eight years of severe to extreme drought occurring between 2007 and 2016, with unprecedented dry years occurring in 2014 and 2015 (OEHHA 2018). Statewide precipitation has become increasingly variable from year to year, with the driest consecutive four years occurring from 2012 to 2015 (OEHHA 2018). According to the California Climate Action Team—a committee of state agency secretaries and the heads of agencies, boards, and departments, led by the Secretary of the California Environmental Protection Agency—even if actions could be taken to immediately curtail climate change emissions, the potency of emissions that have already built up, their long atmospheric lifetimes (see Table 5.7-1), and the inertia of the Earth’s climate system could produce as much as 0.6°C (1.1°F) of additional warming. Consequently, some impacts from climate change are now considered unavoidable. Global climate change risks to California are shown in Table 5.7-2, *Summary of GHG Emissions Risks to California*, and include impacts to public health, water resources, agriculture, coastal sea level, forest and biological resources, and energy.

**Table 5.7-2 Summary of GHG Emissions Risks to California**

Impact Category	Potential Risk
Public Health Impacts	Heat waves will be more frequent, hotter, and longer Fewer extremely cold nights Poor air quality made worse Higher temperatures increase ground-level ozone levels
Water Resources Impacts	Decreasing Sierra Nevada snow pack Challenges in securing adequate water supply Potential reduction in hydropower Loss of winter recreation
Agricultural Impacts	Increasing temperature Increasing threats from pests and pathogens Expanded ranges of agricultural weeds Declining productivity Irregular blooms and harvests
Coastal Sea Level Impacts	Accelerated sea level rise Increasing coastal floods Shrinking beaches Worsened impacts on infrastructure
Forest and Biological Resource Impacts	Increased risk and severity of wildfires Lengthening of the wildfire season Movement of forest areas Conversion of forest to grassland Declining forest productivity Increasing threats from pest and pathogens Shifting vegetation and species distribution



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**Table 5.7-2 Summary of GHG Emissions Risks to California**

Impact Category	Potential Risk
	Altered timing of migration and mating habits Loss of sensitive or slow-moving species
Energy Demand Impacts	Potential reduction in hydropower Increased energy demand

Sources: CEC 2006; CEC 2009; CCCC 2012; CNRA 2014.

#### 5.7.1.2 REGULATORY BACKGROUND

This section describes the federal, state, and local regulations applicable to GHG emissions.

##### Federal

##### *United State Environmental Protection Agency*

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

To regulate GHGs from passenger vehicles, the EPA was required to issue an endangerment finding. The finding identified emissions of six key GHGs—carbon dioxide (CO<sub>2</sub>), methane (CH<sub>4</sub>), nitrous oxide (N<sub>2</sub>O), hydrofluorocarbons, perfluorocarbons, and sulfur hexafluoride (SF<sub>6</sub>)—that have been the subject of scrutiny and intense analysis for decades by scientists in the United States and around the world. The first three are applicable to the project's GHG emissions inventory because they constitute the majority of GHG emissions and, per South Coast AQMD guidance, are the GHG emissions that should be evaluated as part of a project's GHG emissions inventory.

##### *US Mandatory Reporting Rule for GHGs (2009)*

In response to the endangerment finding, the EPA issued the Mandatory Reporting of GHG Rule that requires substantial emitters of GHG emissions (large stationary sources, etc.) to report GHG emissions data. Facilities that emit 25,000 MTCO<sub>2</sub>e or more per year are required to submit an annual report.

##### *Update to Corporate Average Fuel Economy Standards (CAFE)(2021 to 2026)*

The federal government issued new corporate average fuel economy standards in 2012 for model years 2017 to 2025 that required a fleet average of 54.5 miles per gallon in 2025. However, on March 30, 2020, the EPA finalized updated corporate average fuel economy and GHG emissions standards for passenger cars and light trucks and established new standards covering model years 2021 through 2026, known as the Safer Affordable

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Fuel Efficient Vehicles Final Rule for Model Years 2021 to 2026. However, a consortium of automakers and California have agreed on a voluntary framework to reduce emissions that can serve as an alternate path forward for clean vehicle standards nationwide. Automakers who agreed to the framework are Ford, Honda, BMW of North America, and Volkswagen Group of America. The framework supports continued annual reductions of vehicle GHG emissions through the 2026 model year, encourages innovation to accelerate the transition to electric vehicles, and gives industry the certainty needed to make investments and create jobs. The auto companies that are parties to the voluntary agreement will only sell cars in the United States that meet these standards (CARB 2019). In addition, per Executive Order 13990 issued by President Biden on January 20, 2021, the EPA reconsidered the Safer Affordable Fuel Efficient Vehicles rule. On August 5, 2021, the Biden Administration proposed new standards that would replace the SAFE Rule, effectively reversing the previous Trump Administration's roll-back of the CAFE standards. On March 9, 2022, EPA reinstated California's authority under the Clean Air Act to implement its own GHG emission standards and zero emission vehicle (ZEV) sales mandate. This action concludes the agency's reconsideration of 2019's SAFE Rule Part One by finding that the actions taken under the previous administration as a part of SAFE-1 were decided in error and are now entirely rescinded.

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

Pursuant to its authority under the Clean Air Act, the EPA has been developing regulations for new, large, stationary sources of emissions such as power plants and refineries. Under former President Obama's 2013 Climate Action Plan, the EPA was directed to develop regulations for existing stationary sources as well. On June 19, 2019, the EPA issued the final Affordable Clean Energy rule, which became effective on August 19, 2019. This rule was crafted under the direction of President Trump's Energy Independence Executive Order. It officially rescinds the Clean Power Plan rule issued during the Obama Administration and sets emissions guidelines for states in developing plans to limit CO<sub>2</sub> emissions from coal-fired power plants.

#### **State**

Current State of California guidance and goals for reductions in GHG emissions are generally embodied in Executive Order S-03-05, Executive Order B-30-15, Executive Order B-55-18, Assembly Bill (AB) 32, Senate Bill (SB) 32, and SB 375.

#### *Executive Order S-03-05*

Executive Order S-03-05, signed June 1, 2005, set the following GHG reduction targets for the state:

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

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

AB 32 was passed by the California state legislature on August 31, 2006, to place the state on a course toward reducing its contribution of GHG emissions. AB 32 follows the 2020 tier of emissions reduction goals

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established in Executive Order S-03-05. CARB prepared the 2008 Scoping Plan to outline a plan to achieve the GHG emissions reduction targets of AB 32.

### *Executive Order B-30-15*

Executive Order B-30-15, signed April 29, 2015, sets a goal of reducing GHG emissions in the state to 40 percent below 1990 levels by year 2030. Executive Order B-30-15 also directs CARB to update the Scoping Plan to quantify the 2030 GHG reduction goal for the state and requires state agencies to implement measures to meet the interim 2030 goal as well as the long-term goal for 2050 in Executive Order S-03-05. It also requires the Natural Resources Agency to conduct triennial updates of the California adaptation strategy, “Safeguarding California,” in order to ensure climate change is accounted for in state planning and investment decisions.

### *Senate Bill 32 and Assembly Bill 197*

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

### *2017 Climate Change Scoping Plan*

Executive Order B-30-15 and SB 32 required CARB to prepare another update to the Scoping Plan to address the 2030 target for the state. On December 24, 2017, CARB approved the 2017 Climate Change Scoping Plan Update, which outlines potential regulations and programs, including strategies consistent with AB 197 requirements, to achieve the 2030 target. The 2017 Scoping Plan establishes a new emissions limit of 260 MMTCO<sub>2e</sub> for the year 2030, which corresponds to a 40 percent decrease in 1990 levels by 2030 (CARB 2017b).

California’s climate strategy will require contributions from all sectors of the economy, including enhanced focus on zero- and near-zero-emission (ZE/NZE) vehicle technologies; continued investment in renewables such as solar roofs, wind, and other types of distributed generation; greater use of low carbon fuels; integrated land conservation and development strategies; coordinated efforts to reduce emissions of short-lived climate pollutants (methane, black carbon, and fluorinated gases); and an increased focus on integrated land use planning to support livable, transit-connected communities and conserve agricultural and other lands. Requirements for GHG reductions at stationary sources complement local air pollution control efforts by the local air districts to tighten emissions limits on criteria air pollutants and toxic air contaminants from a broad spectrum of industrial sources. Major elements of the 2017 Scoping Plan framework include:

- Implementing and/or increasing the standards of the Mobile Source Strategy, which include increasing ZE buses and trucks.
- Low Carbon Fuel Standard (LCFS) with an increased stringency (18 percent by 2030).
- Implementation of SB 350, which expands the Renewables Portfolio Standard (RPS) to 50 percent RPS and doubles energy efficiency savings by 2030.

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- California Sustainable Freight Action Plan, which improves freight system efficiency and utilizes near-zero emissions technology and deployment of ZE trucks.
- Implementing the proposed Short-Lived Climate Pollutant Strategy, which focuses on reducing methane and hydrofluorocarbon emissions by 40 percent and anthropogenic black carbon emissions by 50 percent by year 2030.
- Post-2020 Cap-and-Trade Program that includes declining caps.
- Continued implementation of SB 375.
- Development of a Natural and Working Lands Action Plan to secure California’s land base as a net carbon sink.

In addition to these statewide strategies, the 2017 Climate Change Scoping Plan identified local governments as essential partners in achieving the state’s long-term GHG reduction goals and recommended local actions to reduce GHG emissions—for example, statewide targets of no more than 6 MTCO<sub>2e</sub> or less per capita by 2030 and 2 MTCO<sub>2e</sub> or less per capita by 2050. CARB recommends that local governments evaluate and adopt locally appropriate, robust, and quantitative goals that align with the statewide per capita targets and sustainable development objectives and develop plans to achieve the local goals. The statewide per capita goals were developed by applying the percentage reductions necessary to reach the 2030 and 2050 climate goals (40 percent and 80 percent, respectively) to the state’s 1990 emissions limit established under AB 32. For CEQA projects, CARB states that lead agencies have discretion to develop evidenced-based numeric thresholds (mass emissions, per capita, or per service population) consistent with the Scoping Plan and the state’s long-term GHG goals. To the degree a project relies on GHG mitigation measures, CARB recommends that lead agencies prioritize on-site design features that reduce emissions—especially from vehicle miles traveled (VMT)—and direct investments in GHG reductions in the project’s region that contribute potential air quality, health, and economic co-benefits. Where further project design or regional investments are infeasible or not proven to be effective, CARB recommends mitigating potential GHG impacts through purchasing and retiring carbon credits.

The Scoping Plan scenario is set against what is called the “business-as-usual” yardstick—that is, what would the GHG emissions look like if the State did nothing at all beyond the existing policies that are required and already in place to achieve the 2020 limit, as shown in Table 5.7-3, *2017 Climate Change Scoping Plan Emissions Reductions Gap*. It includes the existing renewables requirements, advanced clean cars, the “10 percent” LCFS, and the SB 375 program for more vibrant communities, among others. However, it does not include a range of new policies or measures that have been developed or put into statute over the past two years. Also shown in the table, the known commitments are expected to result in emissions that are 60 MMTCO<sub>2e</sub> above the target in 2030. If the estimated GHG reductions from the known commitments are not realized due to delays in implementation or technology, the post-2020 Cap-and-Trade Program would deliver the additional GHG reductions in the sectors it covers to ensure the 2030 target is achieved.

CARB is currently working on the 2022 Scoping Plan, which it plans to adopt this year. The 2022 Scoping Plan Update will assess progress towards achieving the Senate Bill 32 2030 target and lay out a path to achieve carbon

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neutrality no later than 2045. CARB will initiate development of modeled scenarios to illustrate outcomes that lead to carbon neutrality. This workshop provides an opportunity for stakeholders to provide input on key questions related to future energy and technology options to help define paths to achieve carbon neutrality.

**Table 5.7-3 2017 Climate Change Scoping Plan Emissions Reductions Gap**

Modeling Scenario	2030 GHG Emissions MMTCO <sub>2e</sub>
Reference Scenario (Business-as-Usual)	389
With Known Commitments	320
2030 GHG Target	<b>260</b>
Gap to 2030 Target	<b>60</b>

Source: CARB 2017b.

Table 5.7-4, *2017 Climate Change Scoping Plan Emissions Change by Sector*, provides estimated GHG emissions compared to 1990 levels and the range of GHG emissions for each sector estimated for 2030.

**Table 5.7-4 2017 Climate Change Scoping Plan Emissions Change by Sector**

Scoping Plan Sector	1990 MMTCO <sub>2e</sub>	2030 Proposed Plan Ranges MMTCO <sub>2e</sub>	% Change from 1990
Agricultural	26	24-25	-8% to -4%
Residential and Commercial	44	38-40	-14% to -9%
Electric Power	108	30-53	-72% to -51%
High GWP	3	8-11	267% to 367%
Industrial	98	83-90	-15% to -8%
Recycling and Waste	7	8-9	14% to 29%
Transportation (including TCU)	152	103-111	-32% to -27%
Net Sink <sup>1</sup>	-7	TBD	TBD
Sub Total	431	294-339	-32% to -21%
Cap-and-Trade Program	NA	24-79	NA
<b>Total</b>	<b>431</b>	<b>260</b>	<b>-40%</b>

Source: CARB 2017b.

Notes: TCU = Transportation, Communications, and Utilities; TBD = to be determined.

<sup>1</sup> Work was underway through 2017 to estimate the range of potential sequestration benefits from the natural and working lands sector.

### Executive Order B-55-18

Executive Order B-55-18, signed September 10, 2018, sets a goal “to achieve carbon neutrality as soon as possible, and no later than 2045, and achieve and maintain net negative emissions thereafter.” Executive Order B-55-18 directs CARB to work with relevant state agencies to ensure future Scoping Plans identify and recommend measures to achieve the carbon neutrality goal. The goal of carbon neutrality by 2045 is in addition to other statewide goals, meaning that not only should emissions be reduced to 80 percent below 1990 levels by 2050, but that, by no later than 2045, the remaining emissions should be offset by equivalent net removals of CO<sub>2e</sub> from the atmosphere, including through sequestration in forests, soils, and other natural landscapes. As noted above, the Scoping Plan is

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currently being updated by CARB to address the GHG reduction goals of Executive Order B-55-18 (i.e., 2022 Scoping Plan Update).

#### *Senate Bill 375*

In 2008, the Sustainable Communities and Climate Protection Act, SB 375, was adopted to connect the GHG emissions reductions targets established in the 2008 Scoping Plan for the transportation sector to local land use decisions that affect travel behavior. Its intent is to reduce GHG emissions from light-duty trucks and automobiles (excludes emissions associated with goods movement) by aligning regional long-range transportation plans, investments, and housing allocations to local land use planning to reduce VMT and vehicle trips. Specifically, SB 375 required CARB to establish GHG emissions reduction targets for each of the 18 metropolitan planning organizations (MPO). The Southern California Association of Governments (SCAG) is the MPO for the Southern California region, which includes the counties of Los Angeles, Orange, San Bernardino, Riverside, Ventura, and Imperial.

Pursuant to the recommendations of the Regional Transportation Advisory Committee, CARB adopted per capita reduction targets for each of the MPOs rather than a total magnitude reduction target. SCAG's targets are an 8 percent per capita reduction from 2005 GHG emission levels by 2020 and a 13 percent per capita reduction from 2005 GHG emission levels by 2035 (CARB 2010). The 2020 targets are smaller than the 2035 targets because a significant portion of the built environment in 2020 has been defined by decisions that have already been made. In general, the 2020 scenarios reflect that more time is needed for large land use and transportation infrastructure changes. Most of the reductions in the interim are anticipated to come from improving the efficiency of the region's transportation network. The targets would result in 3 MMTCO<sub>2e</sub> of reductions by 2020 and 15 MMTCO<sub>2e</sub> of reductions by 2035. Based on these reductions, the passenger vehicle target in CARB's Scoping Plan (for AB 32) would be met (CARB 2010).

#### *2017 Update to the SB 375 Targets*

CARB is required to update the targets for the MPOs every eight years. In June 2017, CARB released updated targets and technical methodology and released another update in February 2018. The updated targets consider the need to further reduce VMT, as identified in the 2017 Scoping Plan Update, while balancing the need for additional and more flexible revenue sources to incentivize positive planning and action toward sustainable communities. Like the 2010 targets, the updated SB 375 targets are in units of percent per capita reduction in GHG emissions from automobiles and light trucks compared to 2005. This excludes reductions anticipated from implementation of state technology and fuels strategies and any potential future state strategies such as statewide road user pricing. The proposed targets call for greater per capita GHG emission reductions from SB 375 than are currently in place, which for 2035, translates into proposed targets that either match or exceed the emission reduction levels in the MPOs' currently adopted sustainable communities strategies (SCS). As proposed, CARB staff's proposed targets would result in an additional reduction of over 8 MMTCO<sub>2e</sub> in 2035 compared to the current targets. For the next round of SCS updates, CARB's updated targets for the SCAG region are an 8 percent per capita GHG reduction in 2020 from 2005 levels (unchanged from the 2010 target) and a 19 percent per capita GHG reduction in 2035 from 2005 levels (compared to the 2010 target of 13 percent) (CARB 2018). CARB adopted the updated targets and methodology on March 22, 2018. All SCSs adopted after October 1, 2018, are subject to these new targets.

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### Regional

#### *SCAG's Regional Transportation Plan / Sustainable Communities Strategy*

SB 375 requires each MPO to prepare a sustainable communities strategy in its regional transportation plan. For the SCAG region, the draft 2020-2045 RTP/SCS (Connect SoCal) was adopted on May 7, 2020 for the limited purpose of transportation conformity (SCAG 2020). The Connect SoCal Plan was fully adopted in September 2020. In general, the SCS outlines a development pattern for the region that, when integrated with the transportation network and other transportation measures and policies, would reduce vehicle miles traveled from automobiles and light duty trucks and thereby reduce GHG emissions from these sources.

Connect SoCal focuses on the continued efforts of the previous RTP/SCSs to integrate transportation and land use strategies in development of the SCAG region through horizon year 2045 (SCAG 2020). Connect SoCal forecasts that the SCAG region will meet its GHG per capita reduction targets of 8 percent by 2020 and 19 percent by 2035. Additionally, Connect SoCal also forecasts that implementation of the plan will reduce VMT per capita in year 2045 by 4.1 percent compared to baseline conditions for that year. Connect SoCal includes a “core vision” that centers on maintaining and better managing the transportation network for moving people and goods while expanding mobility choices by locating housing, jobs, and transit closer together and increasing investments in transit and complete streets.

#### *Specific Regulations for the Transportation Sector*

##### *Assembly Bill 1493*

California vehicle GHG emission standards were enacted under AB 1493 (Pavley I). Pavley I is a clean-car standard that reduced GHG emissions from new passenger vehicles (light-duty auto to medium-duty vehicles) from 2009 through 2016 and was anticipated to reduce GHG emissions from new passenger vehicles by 30 percent in 2016. California implemented the Pavley I standards through a waiver granted to California by the EPA. In 2012, the EPA issued a Final Rulemaking that set even more stringent fuel economy and GHG emissions standards for model years 2017 through 2025 light-duty vehicles (see also the discussion on the update to the corporate average fuel economy standards under “Federal,” above). In January 2012, CARB approved the Advanced Clean Cars program (formerly known as Pavley II) for model years 2017 through 2025. The program combines the control of smog, soot, and GHGs with requirements for greater numbers of ZE vehicles into a single package of standards. Under California’s Advanced Clean Car program, by 2025 new automobiles will emit 34 percent less GHG and 75 percent less smog-forming emissions.

##### *Executive Order S-01-07*

On January 18, 2007, the state set a new LCFS for transportation fuels sold in the state. Executive Order S-01-07 set a declining standard for GHG emissions measured in CO<sub>2</sub>e gram per unit of fuel energy sold in California. The LCFS required a reduction of 2.5 percent in the carbon intensity of California’s transportation fuels by 2015 and a reduction of at least 10 percent by 2020. The standard applied to refiners, blenders, producers, and importers of transportation fuels, and would use market-based mechanisms to allow these providers to choose how they reduce emissions during the “fuel cycle” using the most economically feasible methods.

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#### *Executive Order B-16-2012*

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

#### *Executive Order N-79-20*

On September 23, 2020, Governor Newsom signed Executive Order N-79-20 with the goal that 100 percent of in-state sales of new passenger cars and trucks will be ZE by 2035. Additionally, this Executive Order identified fleet goals of 100 percent ZE drayage trucks by 2035 and 100 percent ZE medium- and heavy-duty vehicles in the state by 2045, for all operations where feasible. Additionally, the Executive Order identifies a goal for the state to transition to 100 percent ZE off-road vehicles and equipment by 2035, where feasible.

#### *Renewables Portfolio: Carbon Neutrality Regulations*

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

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

##### *Senate Bill 350*

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

##### *Senate Bill 100*

On September 10, 2018, Governor Brown signed SB 100, which replaced the SB 350 requirement of 45 percent renewable energy by 2027 with the requirement of 50 percent by 2026 and raised California's RPS requirements for 2050 from 50 percent to 60 percent. SB 100 established RPS requirements for publicly owned utilities that consist of 44 percent renewable energy by 2024, 52 percent by 2027, and 60 percent by 2030. The bill also established an overall state policy that eligible renewable energy resources and zero-carbon resources supply 100 percent of all retail sales of electricity to California end-use customers and 100 percent of electricity



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procured to serve all state agencies by December 31, 2045. Under the bill, the state cannot increase carbon emissions elsewhere in the western grid or allow resource shuffling to achieve the 100 percent carbon-free electricity target.

### ***Executive Order N-79-20***

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

### ***Energy Efficiency Regulations***

#### ***California Building Code: Building Energy Efficiency Standards***

Energy conservation standards for new residential and nonresidential buildings were adopted by the California Energy Resources Conservation and Development Commission (now the CEC) in June 1977 (Title 24, Part 6, of the California Code of Regulations [CCR]). Title 24 requires the design of building shells and building components to conserve energy. The standards are updated periodically to allow for consideration and possible incorporation of new energy efficiency technologies and methods. The 2019 Building Energy Efficiency Standards were adopted on May 9, 2018 and went into effect on January 1, 2020.

The 2019 standards move toward cutting energy use in new homes by more than 50 percent and require installation of solar photovoltaic systems for single-family homes and multifamily buildings of three stories and less. The 2019 standards focus on four key areas: 1) smart residential photovoltaic systems; 2) updated thermal envelope standards (preventing heat transfer from the interior to exterior and vice versa); 3) residential and nonresidential ventilation requirements; 4) and nonresidential lighting requirements (CEC 2018a). Under the 2019 standards, nonresidential buildings are 30 percent more energy efficient than under the 2016 standards, and single-family homes are 7 percent more energy efficient (CEC 2018b). When accounting for the electricity generated by the solar photovoltaic system, single-family homes would use 53 percent less energy compared to homes built to the 2016 standards (CEC 2018b).

The CEC is currently amending the Building and Energy Efficiency Standards. The 2022 Building and Energy Efficiency Standards are anticipated to be adopted in December 2021 and will go into effect on January 1, 2023.

#### ***California Building Code: CALGreen***

On July 17, 2008, the California Building Standards Commission adopted the nation's first green building standards. The California Green Building Standards Code (24 CCR, Part 11, known as "CALGreen") was adopted as part of the California Building Standards Code. CALGreen established planning and design standards for sustainable site development, energy efficiency (in excess of the California Energy Code requirements), water conservation, material conservation, and internal air contaminants.<sup>3</sup> The mandatory

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<sup>3</sup> The green building standards became mandatory in the 2010 edition of the code.

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provisions of the California Green Building Code Standards became effective January 1, 2011, and were last updated in 2019. The 2019 CALGreen standards became effective January 1, 2020.

Section 5.408 of CALGreen also requires that at least 65 percent of the nonhazardous construction and demolition waste from nonresidential construction operations be recycled and/or salvaged for reuse.

#### *2006 Appliance Efficiency Regulations*

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

#### *Solid Waste Diversion Regulations*

##### *AB 939: Integrated Waste Management Act of 1989*

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

##### *Assembly Bill 341*

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

##### *Assembly Bill 1327*

The California Solid Waste Reuse and Recycling Access Act (AB 1327) requires areas to be set aside for collecting and loading recyclable materials in development projects (Public Resources Code Sections 42900 et seq.). The act required the California Integrated Waste Management Board to develop a model ordinance for adoption by any local agency requiring adequate areas for collection and loading of recyclable materials as part of development projects. Local agencies are required to adopt the model or an ordinance of their own.

##### *Assembly Bill 1826*

In October 2014, Governor Brown signed AB 1826, requiring businesses to recycle their organic waste on and after April 1, 2016, depending on the amount of waste they generate per week. This law also requires that on and after January 1, 2016, local jurisdictions across the state implement an organic waste recycling program to divert organic waste generated by businesses and multifamily residential dwellings that consist of five or more

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units. Organic waste means food waste, green waste, landscape and pruning waste, nonhazardous wood waste, and food-soiled paper waste that is mixed in with food waste.

### *Water Efficiency Regulations*

#### ***SBX7-7***

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

#### ***Assembly Bill 1881: Water Conservation in Landscaping Act***

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

### *Short-Lived Climate Pollutant Reduction Strategy*

#### ***Senate Bill 1383***

On September 19, 2016, the governor signed SB 1383 to supplement the GHG reduction strategies in the Scoping Plan to consider short-lived climate pollutants, including black carbon and methane. Black carbon is the light-absorbing component of fine particulate matter produced during incomplete combustion of fuels. SB 1383 required the state board, no later than January 1, 2018, to approve and begin implementing that comprehensive strategy to reduce emissions of short-lived climate pollutants—to reduce methane by 40 percent, hydrofluorocarbon gases by 40 percent, and anthropogenic black carbon by 50 percent below 2013 levels by 2030. The bill also established targets for reducing organic waste in landfill. On March 14, 2017, CARB adopted the “Final Proposed Short-Lived Climate Pollutant Reduction Strategy,” which identifies the state’s approach to reducing anthropogenic and biogenic sources of short-lived climate pollutants. Anthropogenic sources of black carbon include on- and off-road transportation, residential wood burning, fuel combustion (charbroiling), and industrial processes. According to CARB, ambient levels of black carbon in California are 90 percent lower than in the early 1960s despite the tripling of diesel fuel use (CARB 2017b). In-use on-road rules were expected to reduce black carbon emissions from on-road sources by 80 percent between 2000 and 2020. South Coast AQMD is one of the air districts that requires air pollution control technologies for chain-driven broilers, which reduces particulate emissions from these char broilers by over 80 percent (CARB 2017b). Additionally, South Coast AQMD Rule 445 limits installation of new fireplaces in the SoCAB.

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#### Local

##### *Laguna Niguel Municipal Code*

The Laguna Niguel Municipal Code identifies land use categories, development standards, and other general provisions that ensure consistency between the Laguna Niguel General Plan and proposed development projects. The following provisions focus on reduction of trips and Transportation Demand Management strategies:

- **Section 9-1-101 (Transportation Demand Management Policy).** New commercial, industrial, mixed-use development must promote use of alternate transportation modes, provide facilities necessary to encourage alternate methods of transportation, utilize existing local mechanisms and procedures for project review and permit processing to achieve reductions in vehicle trips, and promote coordinated implementation of strategies on a countywide basis to reduce transportation demand.

#### 5.7.1.3 EXISTING CONDITIONS

##### **California's GHG Sources and Relative Contribution**

In 2021, the statewide GHG emissions inventory was updated for 2000 to 2019 emissions using the GWPs in IPCC's AR4 (IPCC 2013). Based on these GWPs, California produced 418.2 MMTCO<sub>2e</sub> GHG emissions in 2019. California's transportation sector was the single largest generator of GHG emissions, producing 39.7 percent of the state's total emissions. Industrial sector emissions made up 21.1 percent, and electric power generation made up 14.1 percent of the state's emissions inventory. Other major sectors of GHG emissions include commercial and residential (10.5 percent), agriculture and forestry (7.6 percent), high GWP (4.9 percent), and recycling and waste (2.1 percent) (CARB 2021).

Since the peak level in 2004, California's GHG emissions have generally followed a decreasing trend. In 2016, California statewide GHG emissions dropped below the AB 32 target for year 2020 of 431 MMTCO<sub>2e</sub> and have remained below this target since then. In 2019, emissions from routine GHG-emitting activities statewide were almost 13 MMTCO<sub>2e</sub> lower than the AB 32 target for year 2020. Per capita GHG emissions in California have dropped from a 2001 peak of 14.0 MTCO<sub>2e</sub> per person to 10.5 MTCO<sub>2e</sub> per person in 2019, a 25 percent decrease.

Transportation emissions continued to decline in 2019 statewide as they had done in 2018, with even more substantial reductions due to a significant increase in renewable diesel. Since 2008, California's electricity sector has followed an overall downward trend in emissions. In 2019, solar power generation continued its rapid growth since 2013. Emissions from high-GWP gases comprised 4.9 percent of California's emissions in 2019. This continues the increasing trend as the gases replace ozone-depleting substances being phased out under the 1987 Montreal Protocol. Overall trends in the inventory also demonstrate that the carbon intensity of California's economy (the amount of carbon pollution per million dollars of gross domestic product) has declined 45 percent since the 2001 peak, though the state's gross domestic product grew 63 percent during this period (CARB 2021).

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### Project Site

The project site includes the former South County Justice Center (closed in 2008), the Orange County Library (Laguna Niguel Branch), and a county maintenance yard. These existing land uses generate GHG emissions from building transportation, area sources, energy use, water use/wastewater generation, and solid waste disposal. As the emissions from the existing library would be cancelled out by new library and the justice center is not currently in operation, existing emissions at the project site were not modelled.

### 5.7.2 Thresholds of Significance

The City's CEQA Manual provides local guidelines, procedures, requirements, and thresholds of significance for the environmental review process within the City consistent with the CEQA Statutes (Public Resources Code Section 21000 et seq.) and State CEQA Guidelines (14 CCR, Division 6, Chapter 3, Section 15000 et seq.) (Laguna Niguel 2021).

The City relies on the parameters specified in the CEQA Guidelines Appendix G Checklist for assessing impacts to GHG emissions. The State CEQA Guidelines do not provide numeric or qualitative thresholds of significance for evaluating GHG emissions. The South Coast AQMD has been evaluating GHG significance thresholds since April 2008. In December 2008, the South Coast AQMD adopted an interim 10,000 metric tons CO<sub>2</sub>e (MTCO<sub>2</sub>e) per year screening level threshold for stationary source/industrial projects for which the South Coast AQMD is the lead agency and 3,000 MTCO<sub>2</sub>e per year for smaller and simpler non-industrial projects. For larger and/or more complicated projects, the five-tier outline specified below shall be used to evaluate level of significance for State CEQA Guidelines Appendix G, GHG question (a). Furthermore, in absence of a local Climate Action Plan, evaluating level of significance for State CEQA Guidelines Appendix G, GHG question (b), should rely on an analysis of consistency with the RTP/SCS and whether the project meets the numeric thresholds specified in GHG question (a). The Manual relies on the goals in the 2016 RTP/SCS, which identifies transportation strategies to address mobility needs for the future and ensures the SCAG region can meet its regional GHG reduction targets set by CARB, to provide guidance for considering projects within the context of regional goals and policies. A project is generally less than significant if it does not conflict with any policies from the current RTP/SCS, as applicable, and the project's GHG emissions are less than the thresholds established in the five-tier outline.

According to Appendix G of the CEQA Guidelines and the City's CEQA Manual, a project would normally have a significant effect on the environment if the project would:

- GHG-1 Generate greenhouse gas emissions, either directly or indirectly, that may have a significant impact on the environment.
- GHG-2 Conflict with an applicable plan, policy or regulation adopted for the purpose of reducing the emissions of greenhouse gases.

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#### South Coast Air Quality Management District

South Coast AQMD has adopted a significance threshold of 10,000 MTCO<sub>2e</sub> per year for permitted (stationary) sources of GHG emissions for which South Coast AQMD is the designated lead agency. To provide guidance to local lead agencies on determining significance for GHG emissions in their CEQA documents, South Coast AQMD convened a GHG CEQA Significance Threshold Working Group (Working Group). Based on the last Working Group meeting (Meeting No. 15) in September 2010, South Coast AQMD identified a tiered approach for evaluating GHG emissions for development projects where South Coast AQMD is not the lead agency (South Coast AQMD 2010a). This following tiered approach has not been formally adopted by South Coast AQMD but has been adopted as part of the Laguna Niguel CEQA Manual.

- **Tier 1.** If a project is exempt from CEQA, project-level and contribution to significant cumulative GHG emissions are less than significant.
- **Tier 2.** If the project complies with a GHG emissions reduction plan or mitigation program that avoids or substantially reduces GHG emissions in the project's geographic area (e.g., city or county), project-level and contribution to significant cumulative GHG emissions are less than significant.
- **Tier 3.** If GHG emissions are less than the screening-level criterion, project-level and contribution to significant cumulative GHG emissions are less than significant.

For projects that are not exempt or where no qualifying GHG reduction plans are directly applicable, South Coast AQMD requires an assessment of GHG emissions. Project-related GHG emissions include on-road transportation, energy use, water use, wastewater generation, solid waste disposal, area sources, off-road emissions, and construction activities. The South Coast AQMD Working Group identified that because construction activities would result in a “one-time” net increase in GHG emissions, construction activities should be amortized into the operational phase GHG emissions inventory based on the service life of a building. For buildings in general, it is reasonable to look at a 30-year time frame, since this is a typical interval before a new building requires the first major renovation. South Coast AQMD identified a screening-level threshold of 3,000 MTCO<sub>2e</sub> annually for all land use types. The bright-line screening-level criteria are based on a review of the Governor's Office of Planning and Research database of CEQA projects. Based on their review of 711 CEQA projects, 90 percent of CEQA projects would exceed the bright-line thresholds. Therefore, projects that do not exceed the bright-line threshold would have a nominal, and therefore, less than cumulatively considerable impact on GHG emissions. South Coast AQMD recommends use of the 3,000 MTCO<sub>2e</sub> interim bright-line screening-level criterion for all project types (South Coast AQMD 2010b).

- **Tier 4.** If emissions exceed the screening threshold, a more detailed review of the project's GHG emissions is warranted.<sup>4</sup>

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<sup>4</sup> South Coast AQMD had identified an efficiency target for projects that exceed the bright-line threshold: a 2020 efficiency target of 4.8 MTCO<sub>2e</sub> per year per service population (MTCO<sub>2e</sub>/year/SP) for project-level analyses and 6.6 MTCO<sub>2e</sub>/year/SP for plan-level projects (e.g., general plans). Service population is generally defined as the sum of residential and employment population of a

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The South Coast AQMD Working Group has identified an efficiency target for projects that exceed the screening threshold of 4.8 MTCO<sub>2e</sub> per year per service population (MTCO<sub>2e</sub>/year/SP) for project-level analyses and 6.6 MTCO<sub>2e</sub>/year/SP for plan level projects (e.g., program-level projects such as general plans) for the year 2020.<sup>5</sup> The per capita efficiency targets are based on the AB 32 GHG reduction target and 2020 GHG emissions inventory prepared for CARB's 2008 Scoping Plan.<sup>6</sup>

Both the City and the South Coast AQMD use the bright-line screening-level criterion of 3,000 MTCO<sub>2e</sub> per year as the significance threshold for this project. If the project operation-phase emissions exceed this criterion, GHG emissions would be considered potentially significant in the absence of mitigation measures.

### 5.7.3 Plans, Programs, and Policies

Plans, programs, and policies (PPP) include applicable regulatory requirements and conditions of approval for impacts of GHG emissions.

- PPP GHG-1 New buildings are required to achieve the current California Building Energy and Efficiency Standards (California Code of Regulations Title 24, Part 6) and California Green Building Standards Code (CALGreen) (Title 24, Part 11). The 2019 Building and Energy Efficiency Standards became effective on January 1, 2020. The Building Energy and Efficiency Standards and CALGreen are updated tri-annually with a goal to achieve zero net energy for residential buildings by 2020 and non-residential buildings by 2030.
- PPP GHG-2 New buildings are required to adhere to the California Green Building Standards Code (CALGreen) requirement to provide bicycle parking for new non-residential buildings, or meet local bicycle parking ordinances, whichever is stricter (CALGreen Sections 5.106.4.1, 14.106.4.1, and 5.106.4.1.2). The proposed project would be required to provide anchored bicycle racks and long-term secured bicycle parking.
- PPP GHG-3 California's Green Building Standards Code (CALGreen) requires the recycling and/or salvaging for reuse at minimum of 65 percent of the nonhazardous construction and demolition waste generated during most "new construction" projects (CALGreen Sections 4.408 and 5.408). Construction contractors are required to submit a construction waste management plan that identifies the construction and demolition waste materials to be diverted from disposal by recycling, reuse on the project, or salvaged for future use or sale and the amount (by weight or volume).

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project. The per capita efficiency targets are based on the AB 32 GHG reduction target and 2020 GHG emissions inventory prepared for CARB's 2008 Scoping Plan.<sup>4</sup>

<sup>5</sup> It should be noted that the Working Group also considered efficiency targets for 2035 for the first time in this Working Group meeting.

<sup>6</sup> South Coast AQMD took the 2020 statewide GHG reduction target for land use only GHG emissions sectors and divided it by the 2020 statewide employment for the land use sectors to derive a per capita GHG efficiency metric that coincides with the GHG reduction targets of AB 32 for year 2020.

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- PPP GHG-4 Construction activities are required to adhere to Title 13 California Code of Regulations Section 2499, which requires that nonessential idling of construction equipment is restricted to five minutes or less.
- PPP GHG-5 New buildings are required to adhere to the California Green Building Standards Code and Water Efficient Landscape Ordinance requirements to increase water efficiency and reduce urban per capita water demand.
- PPP GHG-6 CARB's Renewable Portfolio Standard (RPS) is a foundational element of the State's emissions reduction plan. These mandates apply directly to investor-owned utilities, which in the case of the proposed project is Southern California Edison. On September 10, 2018, Senate Bill 100 was signed into law and established the following RPS targets: 50 percent renewable resources target by December 31, 2026, and 60 percent target by December 31, 2030. SB 100 also requires that retail sellers and local publicly owned electric utilities procure a minimum quantity of electricity products from eligible renewable energy resources so that the total kilowatt hours of those products sold to their retail end-use customers achieve 44 percent of retail sales by December 31, 2024; 52 percent by December 31, 2027; and 60 percent by December 31, 2030.
- PPP GHG-7 On January 18, 2007, Governor Arnold Schwarzenegger issued Executive Order S-1-07 requiring the establishment of a Low Carbon Fuel Standard (LCFS) for transportation fuels. The LCFS was amended in 2011 and readopted in 2015. This statewide goal requires that California's transportation fuels reduce their carbon intensity by at least 10 percent by 2020.
- PPP GHG-8 The 2007 Energy Bill creates new federal requirements for increases in fleetwide fuel economy for passenger vehicles and light trucks under the Federal Corporate Average Fuel Economy Standards. The federal legislation requires a fleetwide average of 35 miles per gallon (mpg) to be achieved by 2020. The National Highway Traffic Safety Administration is directed to phase in requirements to achieve this goal. Analysis by CARB suggests that this will require an annual improvement of approximately 3.4 percent between 2008 and 2020.
- PPP GHG-9 On July 22, 2002, Governor Gray Davis signed Assembly Bill 1493 (Pavley) requiring CARB to develop and adopt regulations designed to reduce greenhouse gases emitted by passenger vehicles and light-duty trucks beginning with the 2009 model year. The standards set within the Pavley regulations are expected to reduce GHG emissions from California passenger vehicles by about 22 percent in 2012 and about 30 percent in 2016. California had petitioned the EPA in December 2005 to allow these more stringent standards and California executive agencies have repeated their commitment to higher mileage standards. On July 1, 2009, the EPA granted California a waiver that will enable the state to enforce stricter tailpipe emissions on new motor vehicles.
- PPP GHG-10 SB 375 requires the reduction of GHG emissions from light trucks and automobiles through land use and transportation efforts that will reduce vehicle miles traveled. SB 375's goal is to prioritize transportation funding in a manner that reduces GHG emissions, accounting for local jurisdiction's general plans. SB 375 is one of the vehicle emission reduction measures of



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the GHG reduction requirements of AB 32, California's global warming bill enacted in 2006, and SB 32.

#### 5.7.4 Environmental Impacts

##### 5.7.4.1 METHODOLOGY

This GHG emissions evaluation was prepared in accordance with the requirements of CEQA to determine if significant GHG emissions impacts are likely in conjunction with the type and scale of development associated with the proposed project. Air pollutant emissions are calculated using the California Emissions Estimator Model (CalEEMod), Version 2020.4. CalEEMod compiles an emissions inventory of construction (fugitive dust, off-gas emissions, on-road emissions, and off-road emissions), area sources, indirect emissions from energy use, mobile sources, indirect emissions from waste disposal (annual only), and indirect emissions from water/wastewater (annual only) use. The following provides a summary of the assumptions utilized for the proposed project analysis. GHG emissions modeling datasheets are in Appendix C.

##### Construction Phase

Construction would entail demolition of existing asphalt, site preparation, grading, off-site hauling of demolition debris and earthwork material, construction of the proposed structures and buildings, architectural coating, and asphalt paving on 23.26 acres of the approximately 25-acre project site. The proposed project is anticipated to be constructed over a period of up to 36-months, from September 2023 to September 2026. Construction air pollutant emissions are based on the preliminary information provided by the developer identified in Table 3-2, *Construction Equipment*.

##### Operational Phase

- **Transportation.** The primary source of mobile greenhouse gas emissions is tailpipe exhaust emissions from the combustion of fuel (i.e., gasoline and diesel). Additionally, for criteria air pollutants, brake and tire wear along with fugitive dust created from vehicles traveling roadways also generate particulate matter. The average daily trip (ADT) generation of 9,461 weekday trips and 8,817 Saturday trips was provided by LLG (see Appendix L). Saturday trip generation was used as a proxy for Sunday trips in order to provide a conservative estimate of project emissions. Employee commute VMT was provided by LLG and, where information was not provided, CalEEMod default trip lengths were used. Project-related on-road greenhouse gas emissions are based on year 2026 emission rates for the project buildout year.
- **Area Sources.** GHG emissions generated from use of consumer products and cleaning supplies are based on CalEEMod default emission rates and on the assume building square footages.
- **Energy.** GHG emissions from energy use (natural gas used for cooking, heating, etc.) consider the energy demand caused by the proposed project (CNRA 2018) and are based on CalEEMod defaults for natural gas usage for nonresidential and residential land uses. GHG emissions from energy use are associated with natural gas used for heating. New buildings are modeled to comply with the 2019 Building Energy Efficiency Standards.

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- **Solid Waste Disposal.** Indirect emissions from waste generation are based on CalRecycle solid waste generation rates (see Section 5.17, *Utilities and Service Systems*).
- **Water/Wastewater.** GHG emissions are associated with the embodied energy used to supply, treat, and distribute water. Indoor and outdoor water use is based on data provided by Dudek (see Appendix N).

Life cycle emissions are not included in the GHG analysis consistent with California Resources Agency directives.<sup>7</sup> Black carbon emissions are not included in the GHG analysis because CARB does not include this short-lived climate pollutant in the state's AB 32/SB 32 inventory; CARB treats it separately.<sup>8</sup>

#### 5.7.4.2 IMPACT ANALYSIS

The following impact analysis addresses thresholds of significance. The applicable thresholds are identified in brackets after the impact statement.

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**Impact 5.7-1: Implementation of the proposed project would generate a net increase in GHG emissions, either directly or indirectly, that would have a significant impact on the environment. [Threshold GHG-1]**

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Global climate change is not confined to a particular project area and is generally accepted as the consequence of global industrialization over the last 200 years. A typical project, even a very large one, does not generate enough greenhouse gas emissions on its own to influence global climate change significantly; hence, the issue of global climate change is by definition a cumulative environmental impact.

Implementation of the proposed project would result in additional office buildings, shops, restaurants, and residential housing. From these additional land uses, the proposed project would generate a net increase of 9,461 weekday vehicle trips and 8,817 Saturday vehicle trips.<sup>9</sup> Furthermore, operation of the proposed project would result in an increase in water demand, wastewater and solid waste generation, area sources (e.g., consumer cleaning products), and energy usage (i.e., natural gas and electricity). As described in Chapter 3, *Project Description*, the proposed project would include integration of a 1.5 kW/unit residential photovoltaic (PV) system on carports in the surface parking lot (as shown on Figure 5.1-7), which would reduce energy requirements of the project by 45 MTCO<sub>2</sub>e/year as shown in Table 5.7-5, *Project GHG Emissions Inventory*. The project emissions and construction-related emissions are quantified and shown in Table 5.7-5, *Project GHG*

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<sup>7</sup> Life cycle emissions include indirect emissions associated with materials manufacture. However, these indirect emissions involve numerous parties, each of which is responsible for GHG emissions of their particular activity. The California Resources Agency, in adopting the CEQA Guidelines Amendments on GHG emissions found that lifecycle analysis was not warranted for project-specific CEQA analysis in most situations, for a variety of reasons, including lack of control over some sources, and the possibility of double-counting emissions (see Final Statement of Reasons for Regulatory Action, December 2009). Because the amount of materials consumed during the operation or construction of the proposed project is not known, the origin of the raw materials purchased is not known, and manufacturing information for those raw materials is also not known, calculation of life cycle emissions would be speculative. A life-cycle analysis is not warranted (OPR 2008).

<sup>8</sup> Particulate matter emissions, which include black carbon, are analyzed under *Air Quality*. Black carbon emissions have sharply declined due to efforts to reduce on-road and off-road vehicle emissions, especially diesel particulate matter. The State's existing air quality policies will virtually eliminate black carbon emissions from on-road diesel engines within 10 years (CARB 2017a).

<sup>9</sup> The project involves reconstruction of the Orange County Library (Laguna Niguel Branch) on the project site. As such, trips generated from the existing library are excluded from the project trip generation as they are part of the baseline conditions onsite (see Appendix K).

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*Emissions Inventory.* As shown in the table, GHG emissions from the proposed project would exceed South Coast AQMD Working Group’s bright-line significance threshold as well as the City’s 3,000 MTCO<sub>2e</sub> significance threshold. As a result, GHG emissions associated with the project are considered potentially significant.

**Table 5.7-5 Project GHG Emissions Inventory**

Source	GHG Emissions <sup>1</sup>	
	MTCO <sub>2e</sub> Per Year	Percent Proportion
Area	5	<1%
Energy <sup>2</sup>	2,191	19%
Residential Photovoltaic System <sup>3</sup>	-45	<1%
Mobile <sup>4</sup>	8,013	69%
Solid Waste	1,036	9%
Water	261	2%
Amortized Construction Emissions <sup>5</sup>	191	2%
<b>Total All Sectors</b>	<b>11,651</b>	<b>100%</b>
South Coast AQMD Working Group Bright-Line Threshold	3,000 MTCO <sub>2e</sub>	NA
<b>Exceeds Threshold?</b>	<b>Yes</b>	<b>NA</b>

Source: CalEEMod, Version 2020.4.

Notes: Totals may not equal 100 percent due to rounding.

<sup>1</sup> Based on the preliminary information provided by the Applicant.

<sup>2</sup> Model accounts for total energy use associated with implementation of the proposed project.

<sup>3</sup> Based on PV system generating 184,315 kWh per year as provided by the Applicant.

<sup>4</sup> Construction emissions are amortized over a 30-year project lifetime per recommended South Coast AQMD methodology.

<sup>5</sup> Construction emissions are amortized over a 30-year project lifetime per recommended South Coast AQMD methodology.

**Level of Significance Before Mitigation:** Potentially significant.

**Impact 5.7-2: Implementation of the proposed project could potentially conflict with an applicable plan, policy, or regulation adopted for the purpose of reducing the emissions of GHGs. [Threshold GHG-2]**

Applicable plans adopted for the purpose of reducing GHG emissions include CARB’s Scoping Plan and SCAG’s RTP/SCS. A consistency analysis with these plans is presented below.

**CARB Scoping Plan**

CARB’s Scoping Plan is California’s GHG reduction strategy to achieve the state’s GHG emissions reduction target established by AB 32. The CARB Scoping Plan is applicable to state agencies and is not directly applicable to cities/counties and individual projects. Nonetheless, the Scoping Plan has been the primary tool that is used to develop performance-based and efficiency-based CEQA criteria and GHG reduction targets for climate action planning efforts.

Since adoption of the 2008 Scoping Plan, state agencies have adopted programs identified in the plan, and the legislature has passed additional legislation to achieve the GHG reduction targets. Statewide strategies to reduce GHG emissions include the Low Carbon Fuel Standard, California Appliance Energy Efficiency regulations, California Renewable Energy Portfolio standard, changes in the Corporate Average Fuel Economy standards,

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and other early action measures as necessary to ensure the state is on target to achieve the GHG emissions reduction goals of AB 32. New buildings are required to comply with the latest applicable Building Energy Efficiency Standards and CALGreen. On December 24, 2017, CARB adopted the Final 2017 Climate Change Scoping Plan Update to address the new 2030 interim target established by SB 32 to achieve a 40 percent reduction below 1990 levels by 2030 (CARB 2017b). While measures in the Scoping Plan apply to state agencies and not the proposed project, the proposed project's GHG emissions would be reduced by statewide compliance with measures that have been adopted since AB 32 and SB 32 were adopted.

However, as described in Impact 5.7-1, the proposed project would result in a significant increase in GHG emissions. Because GHG emissions are considered to be substantial; and therefore, significant under Impact 5.7-1, it is conservatively considered to result in a significant impact with respect to consistency with the Scoping Plan. Therefore, the proposed project could obstruct implementation of the CARB Scoping Plan, and impacts would be potentially significant.

#### **SCAG's Regional Transportation Plan/Sustainable Communities Strategy**

SCAG adopted the 2020-2045 RTP/SCS (Connect SoCal) in September 2020 for the purpose of transportation conformity. Connect SoCal finds that land use strategies that focus on new housing and job growth in areas rich with destinations and mobility options would be consistent with a land use development pattern that supports and complements the proposed transportation network. The overarching strategy in Connect SoCal is to plan for the southern California region to grow in more compact communities in transit priority areas and priority growth areas; provide neighborhoods with efficient and plentiful public transit; establish abundant and safe opportunities to walk, bike, and pursue other forms of active transportation; and preserve more of the region's remaining natural lands and farmlands (SCAG 2020). Connect SoCal's transportation projects help more efficiently distribute population, housing, and employment growth, and forecast development is generally consistent with regional-level general plan data to promote active transportation and reduce GHG emissions. The projected regional development, when integrated with the proposed regional transportation network in Connect SoCal, would reduce per-capita GHG emissions related to vehicular travel and achieve the GHG reduction per capita targets for the SCAG region.

The Connect SoCal Plan does not require that local general plans, specific plans, or zoning be consistent with the SCS, but provides incentives for consistency for governments and developers. The proposed project is a mixed-use project that would result in multi-family (medium - high-density) residential development on the project site proximate to commercial uses, which would contribute to reducing the vehicle miles traveled between residential and service needs. Furthermore, as seen in Section 5.15, *Transportation*, the proposed project is expected to generate lower VMT than the established VMT significance thresholds under Baseline Year 2016 conditions and Cumulative Year 2045 conditions for both the residential and nonresidential components. The proposed project is also locally serving in that it provides more options for residents to live and work locally and encourages diverse housing and transportation options that reduce VMT. Additionally, the proposed project has multimodal amenities that enhance mobility and regional connectivity with multimodal connections that extend local access to regional networks for alternative modes of travel. Consequently, the project is consistent with the overall objectives of the Connect SoCal Plan and would not interfere with SCAG's ability to implement the regional strategies outlined in the Connect SoCal. Impacts would be less than significant.

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*Level of Significance Before Mitigation:* Potentially significant.

### 5.7.5 Cumulative Impacts

Project-related GHG emissions are not confined to a particular air basin but are dispersed worldwide. Therefore, impacts under Impact 5.7-1 are not project-specific impacts to global warming, but the proposed project's contribution to this cumulative impact. As discussed under Impact 5.7-1 and Section 5.7.8, implementation of the proposed project would result in annual emissions that would exceed South Coast AQMD Working Group's bright-line threshold. Therefore, project related GHG emissions and their contribution to global climate change would be cumulatively considerable, and GHG emissions impacts would be significant.

### 5.7.6 Level of Significance Before Mitigation

Without mitigation, these impacts would be **potentially significant**:

- **Impact 5.7-1** Operation of the proposed project would generate a cumulatively considerable net increase in GHG emissions that would exceed the South Coast AQMD Working Group bright-line threshold.
- **Impact 5.7-2** Operation of the proposed project could potentially conflict with the Scoping Plan.

### 5.7.7 Mitigation Measures

#### Impact 5.7-1

GHG-1 All installed/provided major appliances shall be "Energy Star" appliances. Prior to issuance of building permits for residential and nonresidential buildings, the property owner/applicant shall identify on the building plans that all major appliances (dishwashers, refrigerators, clothes washers, and dryers) to be provided/installed are "Energy Star" appliances. Proper installation of these features shall be verified by the City of Laguna Niguel prior to issuance of a Certificate of Occupancy.

GHG-2 Prior to issuance of building permits for residential and nonresidential development buildings, the project applicant shall indicate on the building plans that the following features shall be incorporated into the design of the building(s). Proper installation of these features shall be verified by the City prior to issuance of a Certificate of Occupancy.

- For residential and nonresidential buildings, electric vehicle charging shall be provided as specified in Section A4.106.8.2 (Residential Voluntary Measures) and A5.106.5.3 (Nonresidential Voluntary Measures) of the 2019 CALGreen Code as applicable.
- Bicycle parking shall be provided as specified in Section A4.106.9 (Residential Voluntary Measures) and A5.106.5.4 (Nonresidential Voluntary Measures) of the 2019 CALGreen Code and reproduced below.

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- *Short-term bicycle parking.* Permanently anchored bicycle racks shall be provided within 100 feet of the visitor's entrance to the residential building, readily visible to passers-by, for 5 percent of visitor motorized vehicle parking capacity for the multifamily units, with a minimum of one 2-bike capacity rack.
- *Long-term bicycle parking for multifamily buildings.* Provide on-site bicycle parking for at least one bicycle for every two dwelling units. Acceptable bike parking facilities shall be conveniently reached from the street.

GHG-3 Prior to issuance of building permits for nonresidential development buildings, the project applicant shall indicate on the building plans that the following features have been incorporated into the design of the building(s). Proper installation of these features shall be verified by the City prior to issuance of a Certificate of Occupancy.

- Preferential parking for low-emitting, fuel-efficient, and carpool/van vehicles shall be provided as specified in Section A5.106.5.1 (Nonresidential Voluntary Measures) of the 2019 CALGreen Code. Facilities shall be installed to support future electric vehicle charging at each nonresidential building with 30 or more parking spaces. Installation shall be consistent with Section A5.106.5.3 (Nonresidential Voluntary Measures) of the 2019 CALGreen Code.

### 5.7.8 Level of Significance After Mitigation

#### Impact 5.7-1

Implementation of Mitigation Measure GHG-1 through GHG-3 would reduce GHG emissions to the extent feasible. However, mobile emissions are the primary contributor to GHG emissions. The proposed project incorporates the design features to facilitate multi-modal transportation such as improvements to internal circulation by creating pedestrian and multiuse walkways as well as alternative transportation features to encourage public transit and bicycling. In addition, the project will comply with Municipal Code section 9-1-102 et seq., which is designed to reduce vehicle travel and associated GHG emissions. However, the project has no control over state and regional solutions to reduce mobile emissions and the use of mass transit, alternative modes of transportation, and electric vehicles cannot be estimated with certainty. The project would result in a substantial increase in GHG emissions, and Impact 5.7-1 would remain significant and unavoidable.

#### Impact 5.7-2

The proposed project would potentially conflict with the Scoping Plan. Implementation of Mitigation Measure GHG-1 through GHG-3 would reduce GHG emissions to the extent feasible. However, the project would result in a significant increase in GHG emissions; and therefore, it is conservatively considered to potentially conflict with the Scoping Plan. Impact 5.7-2 would remain significant and unavoidable.

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### 5.8 HAZARDS AND HAZARDOUS MATERIALS

This section of the Draft Environmental Impact Report (DEIR) evaluates the potential impacts of the Laguna Niguel City Center Mixed Use Project (proposed project) on human health and the environment due to exposure to hazardous materials or conditions associated with the project site, project construction, and project operations. Potential project impacts and appropriate mitigation measures or standard conditions are included as necessary. The analysis in this section is based, in part, upon the following source(s):

- *Environmental Site Assessment: Phase I Environmental Site Assessment Update*, California Environmental, October 2021
- *Screening Subsurface Investigation: Phase II*, California Environmental, November 2019

Complete copies of these studies are included in the technical appendices to this Draft EIR (Appendices H1 and H2).

#### 5.8.1 Environmental Setting

##### 5.8.1.1 REGULATORY BACKGROUND

###### Federal

###### *Emergency Planning and Community Right-To-Know Act*

In 1986, Congress passed the Superfund Amendments and Reauthorization Act. Title III of this regulation is called the “Emergency Planning and Community Right-to-Know Act of 1986” (EPCRA). The act required the establishment of state commissions, planning districts, and local committees to facilitate the preparation and implementation of emergency plan. Under its requirements, local emergency planning committees (LEPC) are responsible for developing a plan for preparing for and responding to a chemical emergency, including:

- An identification of local facilities and transportation routes where hazardous materials are present.
- The procedures for immediate response in case of an accident (this must include a community-wide evacuation plan).
- A plan for notifying the community that an incident has occurred.
- The names of response coordinators at local facilities.
- A plan for conducting drills to test the plan.

The emergency plan is reviewed by the State Emergency Response Commission and publicized throughout the community. The LEPC is required to review, test, and update the plan each year. The Orange County Environmental Health Department (OC EHD) is responsible for coordinating hazardous material and disaster preparedness planning and appropriate response efforts with city departments and local and state agencies. The

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goal is to improve public and private sector readiness and to mitigate local impacts resulting from natural or manmade emergencies.

Another purpose of the EPCRA is to inform communities and citizens of chemical hazards in their areas. Sections 311 and 312 of EPCRA require businesses to report to state and local agencies the location and quantities of chemicals stored onsite. Under section 313 of EPCRA, manufacturers are required to report chemical releases for more than 600 designated chemicals. In addition to chemical releases, regulated facilities are also required to report offsite transfers of waste for treatment or disposal at separate facilities, pollution prevention measures, and chemical recycling activities. The US Environmental Protection Agency (EPA) maintains the Toxic Release Inventory database that documents the information that regulated facilities are required to report annually.

#### *Resource Conservation and Recovery Act*

The Resource Conservation and Recovery Act (RCRA) of 1976 (42 US Code Section 6901 et seq.) is the principal federal law that regulates the generation, management, and transportation of waste. Hazardous waste management includes the treatment, storage, or disposal of hazardous waste. The RCRA gave the EPA the authority to control hazardous waste from “cradle to grave,” that is, from generation to transportation, treatment, storage, and disposal, at active and future facilities. It does not address abandoned or historical sites. The RCRA also set forth a framework for managing nonhazardous wastes. Later amendments required phasing out land disposal of hazardous waste and added underground tanks storing petroleum and other hazardous substances

#### *Toxic Substances Control Act*

The Toxic Substances Control Act of 1976 provides the EPA with authority to require reporting, record-keeping and testing requirements, and restrictions relating to chemical substances and/or mixtures. The act addresses the production, importation, use, and disposal of specific chemicals, including polychlorinated biphenyls, asbestos, radon and lead-based paint.

#### *Comprehensive Environmental Response, Compensation, and Liability Act*

The Comprehensive Environmental Response, Compensation and Liability Act of 1980 (US Code Title 42, Chapter 103) protects the water, air, and soil resources from the risks created by past chemical disposal practices. It is also referred to as the Superfund Act and regulates sites on the National Priority List, which are called Superfund sites. This law provides broad federal authority to respond directly to releases or threatened releases of hazardous substances that may endanger public health or the environment. It establishes requirements concerning closed and abandoned hazardous waste sites; provides for liability of persons responsible for releases of hazardous waste at these sites; and establishes a trust fund to provide for cleanup when no responsible party can be identified.

#### *Clean Water Act*

The Clean Water Act (CWA) is a 1977 amendment to the Federal Water Pollution Control Act of 1972. The CWA is the principal statute governing water quality. It establishes the basic structure for regulating discharges

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of pollutants into the waters of the United States<sup>1</sup> and gives the EPA the authority to implement pollution-control programs, such as setting wastewater standards for industry. The statute's goal is to end all discharges entirely and to restore, maintain, and preserve the integrity of the nation's waters. The CWA regulates both the direct and indirect discharge of pollutants into the nation's waters. The CWA sets water quality standards for all contaminants in surface waters and makes it unlawful for any person to discharge any pollutant from a point source into navigable waters, unless a permit is obtained under its provisions. The CWA mandates permits for wastewater and stormwater discharges, requires states to establish site-specific water quality standards for navigable bodies of water, and regulates other activities that affect water quality, such as dredging and the filling of wetlands. The CWA also funded the construction of sewage treatment plants and recognized the need for planning to address nonpoint sources of pollution.

Several sections of the Clean Water Act are discussed in Section 5.8, *Hydrology and Water Quality*, of this DEIR.

### *Hazardous Waste Operations and Emergency Response Standards*

The Occupational Safety and Health Administration issued the Hazardous Waste Operations and Emergency Response (HAZWOPER) standards, Code of Federal Regulations (CFR) Title 29, Sections 1910.120 and 1926.65, to protect workers and enable them to handle hazardous substances safely and effectively. The latter standard is for the construction industry and is identical to 29 CFR 1910.120.

The HAZWOPER standard covers employers performing the following general categories of work operations:

- Hazardous waste site cleanup operations.
- Operations involving hazardous waste that are conducted at treatment, storage, and disposal facilities.
- Emergency response operations involving hazardous substance releases.

The HAZWOPER standards provide information and training criteria to employers, emergency response workers, and other workers potentially exposed to hazardous substances to improve workplace safety and health and reduce workplace injuries and illnesses from exposures to hazardous substances. It is critical that employers and their workers understand the scope and application of HAZWOPER and can determine which sections apply to their specific work operations.

### *Hazardous Materials Transportation*

Section 31303 of the California Vehicle Code and the US Department of Transportation regulate hazardous materials transport. The California Highway Patrol and California Department of Transportation are the enforcement agencies. California Office of Emergency Services provides emergency response services involving hazardous materials incidents.

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<sup>1</sup> Waters of the United States generally include surface waters—lakes, rivers streams, bays, the ocean, dry streambeds, wetlands, and storm sewers that are tributary to any surface water body.

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#### *Hazardous Materials Incident Response*

Under Title III of the Superfund Amendments and Reauthorization Act, the LEPC is responsible for developing an emergency plan to prepare for and respond to chemical emergencies in that community. This emergency plan must include:

- An identification of local facilities and transportation routes where hazardous materials are present.
- The procedures for immediate response in case of an accident (this must include a community-wide evacuation plan).
- A plan for notifying the community that an incident has occurred.
- The names of response coordinators at local facilities.
- A plan for conducting exercises to test the plan.

The plan is reviewed by the State Emergency Response Commission and publicized throughout the community. The LEPC is required to review, test, and update the plan each year. The OC EHD is responsible for coordinating hazardous material coordination and inspection in the City.

#### *Title 40 CFR Section 61 Subpart M*

National Emissions Standards for Asbestos (40 CFR Section 61, Subpart M) sets emissions standards for asbestos from demolition and renovation activities, and for waste disposal from such activities.

### **State**

#### *Hazardous Materials Release Notification*

Many state statutes require emergency notification of a hazardous chemical release:

- California Health and Safety Code Sections 25270.8 and 25507
- Vehicle Code Section 23112.5
- Public Utilities Code Section 7673 (PUC General Orders #22-B, 161)
- Government Code Sections 51018, 8670.25.5(a)
- Water Code Sections 13271, 13272,
- California Labor Code Section 6409.1 (b)10

Requirements for immediate notification of all significant spills or threatened releases cover owners, operators, persons in charge, and employers. Notification is required regarding significant releases from facilities, vehicles, vessels, pipelines, and railroads. In addition, all releases that result in injuries or harmful exposure to workers must be immediately reported to the California Occupational Safety and Health Administration (Cal/OSHA) pursuant to the California Labor Code Section 6409.1(b).

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### *Uniform Hazardous Waste and Hazardous Materials Management Regulatory Program*

The Unified Program administered by the State of California consolidates, coordinates, and makes consistent the administrative requirements, permits, inspections, and enforcement activities for environmental and emergency management programs, which include: Hazardous Materials Release Response Plans and Inventories (business plans), the California Accidental Release Prevention (CalARP) Program, and the Underground Storage Tank (UST) Program. The Unified Program is implemented at the local government level by Certified Unified Program Agencies (CUPA).

The CUPA for Laguna Niguel is the OC EHD; it is responsible for regulating hazardous materials business plans and chemical inventory, hazardous waste and tiered permitting, USTs, aboveground storage tanks, and risk management plans.

### *Hazardous Materials Business Plans*

Both the federal government (in the CFR) and the State of California (in the California Health and Safety Code) require all businesses that handle more than a specified amount—or “reporting quantity”—of hazardous or extremely hazardous materials to submit a hazardous materials business plan to its CUPA. According to the OC EHD guidelines, the preparation, submittal, and implementation of a business plan is required by any business that handles a hazardous material or a mixture containing a hazardous material in specified quantities.

Business plans must include an inventory of the hazardous materials at the facility. Businesses must update the whole plan at least every three years and the chemical portion every year. Also, business plans must include emergency response plans and procedures to be used in the event of a significant or threatened significant release of a hazardous material. These plans need to identify the procedures for immediate notification of all appropriate agencies and personnel, identification of local emergency medical assistance appropriate for potential accident scenarios, contact information for all company emergency coordinators, a listing and location of emergency equipment at the business, an evacuation plan, and a training program for business personnel.

The OC EHD currently reviews submitted business plans and updates. Businesses that handle hazardous materials are required by law to provide an immediate verbal report of any release or threatened release of hazardous materials if there is a reasonable belief that the release or threatened release poses a significant present or potential hazard to human health and safety, property, or the environment. The OC EHD is also charged with the responsibility of conducting compliance inspections of regulated facilities in Orange County.

### *California Accidental Release Prevention Program*

CalARP became effective on January 1, 1997, in response to Senate Bill 1889 (Chapter 715, Statutes of 1996). CalARP aims to be proactive and therefore requires businesses to prepare risk management plans, which are detailed engineering analyses of the potential accident factors present at a business and the mitigation measures that can be implemented to reduce this accident potential. This requirement is coupled with the requirements for preparation of hazardous materials business plans under the Unified Program, implemented by the CUPA.

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#### *Leaking Underground Storage Tanks*

Leaking USTs have been recognized since the early 1980s as the primary cause of groundwater contamination from gasoline compounds and solvents. In California, regulations aimed at protecting against UST leaks have been in place since 1983 (Health and Safety Code). This was a year before RCRA was amended to add Subtitle I, which required UST systems to be installed in accordance with standards that address the prevention of future leaks. The State Water Resources Control Board has been designated the lead California regulatory agency in the development of UST regulations and policy.

Older tanks are typically single-walled steel tanks. Many of these have leaked as a result of corrosion, punctures, and detached fittings. As a result, the State of California required the replacement of older tanks with new double-walled fiberglass tanks with flexible connections and monitoring systems. UST owners were given 10 years to comply with the new requirements—the deadline was December 22, 1998. However, many UST owners did not act by the deadline, so the state granted an extension for their replacement ending January 1, 2002. The California Regional Water Quality Control Boards, in cooperation with the Office of Emergency Services, maintain an inventory of leaking USTs in a statewide database.

#### *California Code of Regulations, Title 22, Division 4.5*

Title 22, Division 4.5, of the California Code of Regulations (CCR) sets the requirements for hazardous-waste generators; transporters; and owners or operators of treatment, storage, or disposal facilities. These regulations include the requirements for packaging, storage, labeling, reporting, and general management of hazardous waste prior to shipment. In addition, the regulations identify standards applicable to transporters of hazardous waste. These regulations specify the requirements for transporting shipments of hazardous waste, including manifesting, vehicle registration, and emergency accidental discharges during transportation.

#### *California Fire Code*

The 2016 California Fire Code (24 CCR Part 9) sets requirements pertaining to fire safety and life safety, including for building materials and methods, fire protection systems in buildings, emergency access to buildings, and handling and storage of hazardous materials.

#### *California Building Code*

The California Building Code has requirements for smoke alarms in 24 CCR Part 2, Section 907.2.11.2.

Smoke alarms shall be installed and maintained on the ceiling or wall outside of each separate sleeping area in the immediate vicinity of bedrooms, in each room used for sleeping purposes, and in each story within a dwelling unit. The smoke alarms shall be interconnected in such a manner that the activation of one alarm will activate all of the alarms in the individual unit. Smoke alarms shall receive their primary power from the building wiring and shall be equipped with a battery backup.

#### *8 CCR Sections 1532.1: Worker Safety Standards: Asbestos*

Worker safety standards for asbestos exposure are in 8 CCR Section 1532.1 and apply to employees conducting demolition, construction, and renovation work, including painting and decorating.



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### Regional

#### *South Coast Air Quality Management District*

SCAQMD Rule 1403 governs the demolition of buildings containing asbestos materials. Rule 1403 specifies work practices with the goal of minimizing asbestos emissions during building demolition and renovation activities, including the removal and associated disturbance of asbestos-containing material (ACM). The requirements for demolition and renovation activities include asbestos surveying, notification, ACM removal procedures and time schedules, ACM handling and cleanup procedures, and storage and disposal requirements for asbestos-containing waste materials.

#### *County of Orange and Orange County Fire Authority Hazards Mitigation Plan*

The mission of the County of Orange and Orange County Fire Authority (OCFA) Hazard Mitigation Plan is to promote sound public policy designed to protect residents, critical facilities, infrastructure, key resources, private property, and the environment from natural hazards in County unincorporated area, fire hazards in OCFA's service area, and County- and OCFA-owned facilities.

#### *Orange County Fire Authority Fire Prevention Guidelines*

The OCFA's guideline for "Fire Master Plan for Commercial and Residential Development" (Guideline B-09) is a general guideline pertaining to the creation and maintenance of fire department access roadways, access walkways to and around buildings, and hydrant quantity and placement as required by the 2016 California Fire and Building Codes (CFC and CBC) and as amended by local ordinance.

The OCFA's guideline for "Vegetation Management Guideline Technical Design for New Construction Fuel Modification Plans and Maintenance Program" (Guideline C-05) pertains to fuel modification plans. Fuel modification plans require that landscaped areas adjacent to new buildings be dedicated for permanent vegetation management activities. This guideline covers the timing of plans for construction, plan criteria needed for approval, the resource agency plant list for the zones, new construction inspection requirements, and introductory maintenance information

### Local

#### *Laguna Niguel Municipal Code*

**Article 4, Hazardous Material Disclosure**, implements the community's right and need for basic information on the use and disposal of hazardous materials in the City and provides for an orderly system for the provision of such information.

**Division 3, Fire Protection and Explosives**, has environmental performance standards for the use, handling, storage, and transportation of combustibles and explosives that require compliance with applicable provisions of the current California Fire Code.

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#### 5.8.1.2 EXISTING CONDITIONS

##### Current Uses on the Project Site

The project site consists of the Orange County Fire Station No. 5, South County Justice Center (closed in 2008), the Orange County Library, a county maintenance yard, a former fire station, and undeveloped land. Site improvements include asphalt-paved parking areas and landscaping. The project site is immediately adjacent to the Laguna Niguel City Hall and is generally bounded by Pacific Island Drive to the north, Alicia Parkway to the east, Crown Valley Parkway to the south, and multifamily residential communities to the west (i.e., Niguel Summit Apartments, El Niguel Terrace townhomes, and Charter Terrace single-family homes). Access to the project site is via Crown Valley Parkway to the south, Alicia Parkway to the east, and Pacific Island Drive to the north (see Figures 3-2, *Local Vicinity*, and 3-3, *Aerial Photograph*). The public library and vehicle maintenance facility are still in operation.

##### Historical Uses on the Project Site

The project site was undeveloped until at least 1967. Historical aerial photographs show that the former courthouse and associated structures were developed by 1972. The existing structures and current building configuration on the project site are shown in the 1989 aerial photograph (see Figure 3-3, *Aerial Photograph*).

##### Phase I Environmental Site Assessment and Addendum

The Phase I Environmental Site Assessment (ESA) for the project site was completed in August 2019 and updated in October 2021. The Phase I ESA report provides information regarding the potential for hazardous material impacts to the soil and groundwater beneath the project site. Such threats or material threats are identified as recognized environmental conditions (REC). The presence of historical RECs and controlled RECs was also evaluated. The Phase I ESA included a site reconnaissance and research of land use records and other sources for preliminary indications of hazardous material use, storage, or disposal at the property and/or on contiguous parcels.

Orange County Health Care Agency (OCHCA) files indicate that one 5,000-gallon diesel UST was removed from the former fire station on September 30, 1993. Analytical results of samples collected beneath the removed tank showed an elevated concentration of diesel in one soil sample. Following the removal of the 5,000-gallon UST, a 50-gallon diesel tank was removed from the property on February 3, 1994. Soil samples collected beneath the 50-gallon diesel UST were “nondetect” for diesel. OCHCA issued case closure for the removed tanks on February 2, 1995.

A tank removal report, a site assessment workplan, and a site assessment report for the vehicle maintenance facility (VMF) portion of the property in 1999 (see Figure 3-3, *Aerial Photograph*) found that four 10,000-gallon, single-walled, fiberglass USTs; one 550-gallon new oil UST; and one 550-gallon waste oil UST were removed from this part of the subject property on January 27, 1999. In addition, four fuel dispensers and approximately 75 feet of piping were removed during field operations. Eight soil samples were collected from beneath the removed fuel storage tanks, and four samples were collected from beneath the fuel dispensers. The removed USTs were replaced by one 10,000-gallon diesel UST and one 20,000-gallon gasoline UST following sampling.

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An additional 15 soil samples were collected in the vicinity of the removed USTs and dispensers. No further assessment of remedial action was warranted or recommended for the VMF based on the sampling results. OCHCA issued a case closure for the removed USTs on December 12, 2001.

A Phase I ESA report for the project site dated January 14, 2014, identified RECs on the project site, including a clarifier at the old fire station; operations of the VMF for at least 30 years; and use of two USTs, two clarifiers, and six in-ground hydraulic hoists at the VMF. The Phase I ESA identified historical RECs on the project site, including the removal of two USTs and associated agency closure for the old fire station and the removal of four USTs and agency closure for the VMF. Pre-demolition asbestos sampling and hazardous materials surveys were conducted. All buildings on the Project Site were investigated except for the Orange County Fire Station No. 5 (because it is not planned for demolition) and the library structure. Asbestos was identified in the existing buildings due to the date of original construction. Asbestos containing material identified on the property included acoustic ceiling, roofing cement, floor tiles, and mastic. Subsurface sampling was recommended at the old fire station and VMF based on the findings of the Phase I ESA.

A tank removal report for the VMF portion of the property, dated February 23, 2015, documents the removal of one 10,000-gallon diesel UST, one 20,000-gallon gasoline UST, and associated piping and dispensers. The tanks were removed from the project site on February 4, 2015. OCHCA issued a completion of tank removal letter on March 10, 2015.

The nearest property to the project site listed in State regulatory agency databases is a Mobil Service Station approximately 450 feet to the north. The Regional Water Quality Control Board's (RWQCB) GeoTracker database indicates a leaking UST of gasoline that affected the soil was discovered at the Mobil Service Station in 1998. The OCHCA issued case-closed status for the release on July 7, 2000. Because of the distance from the project site and because the regulatory agency closed its case, the Mobil Service Station is not considered an environmental concern.

### Phase II Screening Subsurface Investigation

A Phase II Screening Subsurface Investigation (Phase II Investigation) was implemented following recommendations in the Phase I ESA. The purpose of the Phase II Investigation was to determine if the soil and/or groundwater beneath the project site was impacted by the extended use of the VMF and the use of clarifiers and UST releases at the VMF and the former fire station. The subsurface investigation included soil and soil gas sampling.

Soil gas sampling beneath the project site was performed on October 16 and 17, 2019. Soil gas concentrations detected on-site were evaluated for future vapor intrusion into indoor air at the proposed buildings. The predicted future air concentration for tetrachloroethylene (PCE)<sup>2</sup> and trimethylbenzene<sup>3</sup> at the VMF exceed the Department of Toxic Substances Control (DTSC) residential screening level.

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<sup>2</sup> PCE is used in metal-cleaning operations and does not degrade quickly in the environment. PCE may remain in subsurface soils for decades following a spill and may cause migration of toxic vapors from contaminated soils into overlying buildings.

<sup>3</sup> Trimethylbenzene is used as a solvent and paint thinner. It is released directly to the environment as a component of gasoline.

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Soil sampling was conducted on October 16, 2019. Laboratory analysis of the samples found all metal concentrations were typical of background concentrations for the region. Concentrations of total petroleum hydrocarbons showed low volatile organic compound impacts associated with the former refueling system at the VMF.

#### Emergency Preparedness

The City's police and fire departments, the Orange County Sheriff's Department (OCSD), and the OCFA are responsible for coordinating all emergency management activity in the City and implementing the County's Emergency Operations Plan (EOP). The County's EOP addresses how the County should respond to extraordinary events or disasters (aviation accidents, civil unrest and disobedience/riot, dam and reservoir failure, disease, earthquake, flood, etc.) from preparedness phase through recovery.

In the event of a wildfire or other emergency, law enforcement and fire agencies issue evacuation warnings or evacuation orders for affected areas. These notices may be issued in conjunction with a particular zone. Authorities may use zone designations or specify another area in emergency alerts, media releases, and on social media to notify residents which areas are under an evacuation warning or order. The City has an evacuation zone map that includes nine all-hazard evacuation zones throughout the entire City that are broken down by neighborhood location. The project site is in zone 08. Major evacuation routes for the project site and surrounding areas include Pacific Island Drive, Crown Valley Parkway, and Alicia Parkway.

#### Airport-Related Hazards

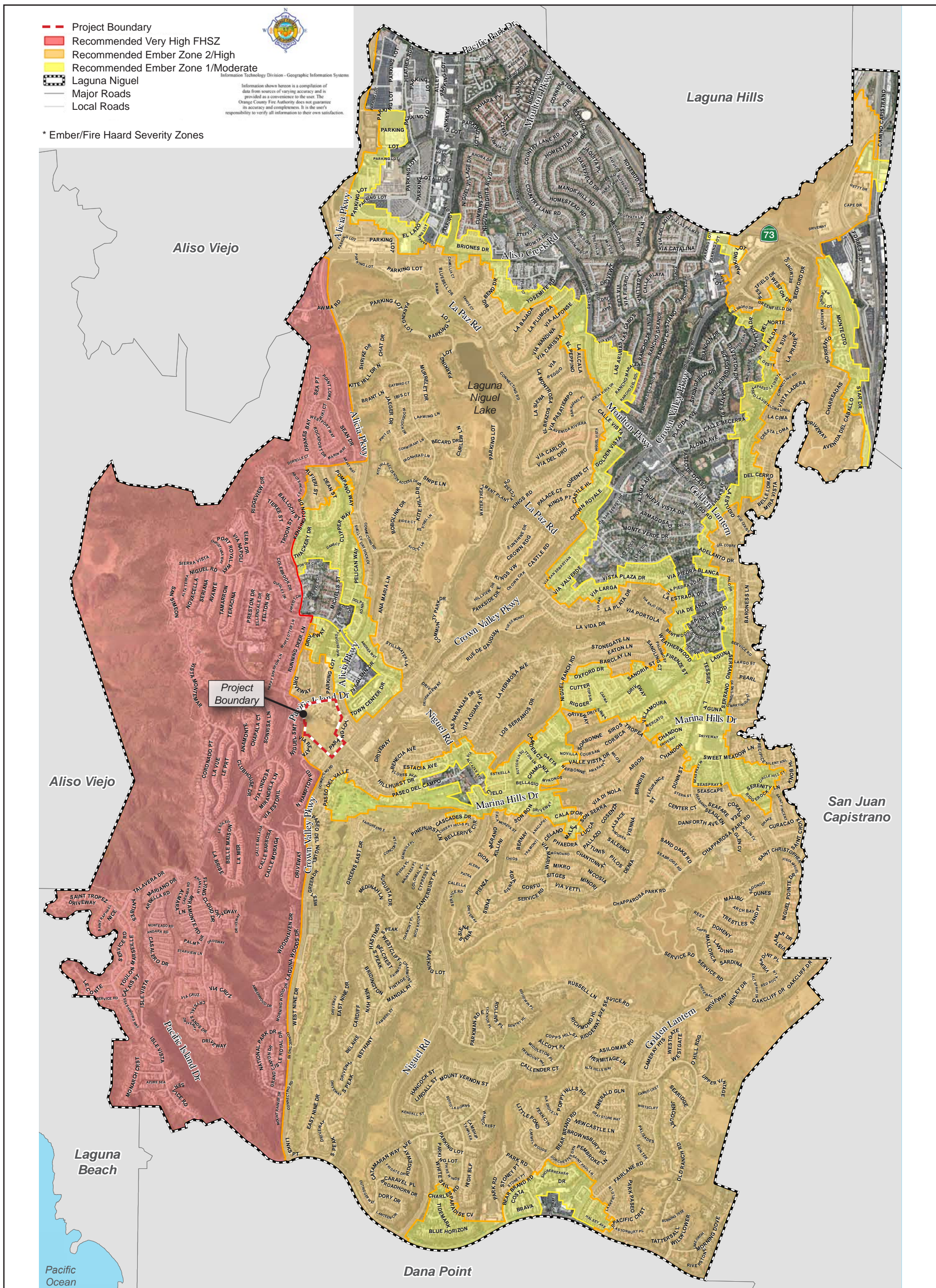
There are no airports in the vicinity of the project site, and the site is not within an airport land use plan. The closest airport is the French Valley airport, six miles to the northeast.

#### Wildfire Hazards

The topography, vegetation, and development patterns in Laguna Niguel make the City susceptible to fire hazards. The City is marked by rolling hills and valleys, and development is on/within the many ridgelines and valleys. Vegetation in the City, including native plant communities (chaparral and ruderal vegetation), is highly combustible. The fire hazard is at its peak during the summer months when plant material that has built up during the spring dies and becomes fuel (Laguna Niguel 1992).

Pursuant to Public Resources Code Sections 4201 to 4204 and Government Code Sections 51175 to 51189, the California Department of Forestry and Fire Prevention (CAL FIRE) is mandated to identify fire hazard severity zones for all communities in California based on fuels, terrain, weather, and other relevant factors. CAL FIRE has mapped fire hazard severity zones (FHSZ) moderate, high, and very high for most regions of California. Local governments must consider CAL FIRE's determination in adopting their own determinations and planning for fire services. A Very High FHSZ encompasses parts of the western side of the City and covers residential and open space areas. The project site borders, but is located outside, the Very High FHSZ in a local responsibility area to the east (see Figure 5.8-1, *Very High Fire Hazard Severity Zone in Laguna Niguel*). Local responsibility areas are areas where local governments have the primary responsibility for preventing and suppressing fires.

Figure 5.8-1 - Very High Fire Hazard Severity Zone  
5. Environmental Analysis



\* Ember/Fire Haard Severity Zones



Information Technology Division - Geographic Information Systems  
Information shown hereon is a compilation of data from sources of varying accuracy and is provided as a convenience to the user. The Orange County Fire Authority does not guarantee its accuracy and completeness. It is the user's responsibility to verify all information to their own satisfaction.



## 5. Environmental Analysis

### HAZARDS AND HAZARDOUS MATERIALS

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## 5. Environmental Analysis HAZARDS AND HAZARDOUS MATERIALS

### 5.8.2 Thresholds of Significance

According to Appendix G of the CEQA Guidelines and the City's CEQA Manual, a project would normally have a significant effect on the environment if the project would:

- H-1 Create a significant hazard to the public or the environment through the routine transport, use, or disposal of hazardous materials.
- H-2 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.
- H-3 Emit hazardous emissions or handle hazardous or acutely hazardous materials, substance, or waste within one-quarter mile of an existing or proposed school.
- H-4 Be located on a site which is included on a list of hazardous materials compiled pursuant to Government Code Section 65962.5 and, as a result, would create a significant hazard to the public or the environment.
- H-5 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 result in a safety hazard or excessive noise for people residing or working in the project area.
- H-6 Impair implementation of or physically interfere with an adopted emergency response plan or emergency evacuation plan.
- H-7 Expose people or structures, either directly or indirectly, to a significant risk of loss, injury, or death involving wildland fires.

### 5.8.3 Plans, Programs, and Policies

- PPP HAZ-1 Any project-related hazardous materials and hazardous wastes will be transported to and/or from the project site in compliance with any applicable state and federal requirements, including the US Department of Transportation regulations listed in the Code of Federal Regulations (Title 49, Hazardous Materials Transportation Act); California Department of Transportation standards; and the California Occupational Safety and Health Administration standards.
- PPP HAZ-2 Any project-related hazardous waste generation, transportation, treatment, storage, and disposal will be conducted in compliance with Subtitle C of the Resource Conservation and Recovery Act (Code of Federal Regulations, Title 40, Part 263), including the management of nonhazardous solid wastes and underground tanks storing petroleum and other hazardous substances. The proposed project will be designed and constructed in accordance with the regulations of the Orange County Environmental Health Department, which is the designated Certified Unified Program Agency and implements state and federal regulations for the following programs: (1) Hazardous Waste Generator Program, (2) Hazardous Materials

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Release Response Plans and Inventory Program, (3) California Accidental Release Prevention Program, (4) Aboveground Storage Tank Program, and (5) Underground Storage Tank Program.

RR HAZ-3 Any project-related demolition activities that have the potential to expose construction workers and/or the public to asbestos-containing materials will be conducted in accordance with applicable regulations, including, but not limited to:

- South Coast Air Quality Management District's Rule 1403
- California Occupational Safety and Health Administration regulations (California Code of Regulations, Title 8, Section 1529)
- Code of Federal Regulations (Title 40, Part 61, Part 763; Title 29, Part 1926)

PPP W-1 The proposed project is required to comply with the California Building Code, the California Fire Code, and the Orange County Fire Authority Fire Prevention Guidelines.

## 5.8.4 Environmental Impacts

### 5.8.4.1 METHODOLOGY

This analysis evaluates the potential impacts of the proposed project on human health and the environment due to potential exposure of hazardous materials or conditions associated with the project site, project construction, and project operations. The hazards and hazardous materials evaluation was prepared in accordance with the requirements of CEQA and the City's CEQA Manual. The Phase I ESA prepared for the project site was conducted in accordance with the American Society for Testing and Materials' Standard of Practice E1527-13 and the standards of care and diligence normally practiced by recognized consulting firms in performing similar services. Soil-gas samples were obtained and analyzed for volatile organic compounds (EPA Method TO-15) in general accordance with the DTSC/RWQCB guidelines in an on-site, state-certified mobile laboratory (California Environmental, November 2019).

### 5.8.4.2 IMPACT ANALYSIS

The following impact analysis addresses thresholds of significance. The applicable thresholds are identified in brackets after the impact statement.

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**Impact 5.8.1: Project construction and operations would involve the transport, use, and/or disposal of hazardous materials. [Thresholds H-1, H-2, and H-3]**

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The Phase I ESA found that the extended use of the VMF on-site is considered an REC. The two USTs removed from the former fire station and six USTs removed from the VMF with the associated regulatory "No Further Action" determinations are considered historical RECs. The Phase I ESA recommended soil and soil gas sampling at the VMF and former fire station to assess impacts to the subsurface from the extended use of the VMF, the use of clarifiers at both locations, and the UST releases at both locations. The Phase II Investigation showed PCE and trimethylbenzene concentrations at the vehicle VMF that exceed the DTSC's



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residential screening level. Soil sample analyses found volatile organic compound impacts at the same location. Residential 1 (apartments) is proposed for this area.

Destructive sampling for ACM was conducted on all buildings except the library and Orange County Fire Station No. 5, which are still in use and Fire Station No. 5 is not planned for demolition. Regulated asbestos materials were identified in acoustic ceilings, roofing cement, floor tile, and mastic. No significant areas of lead-based paint were identified in the existing buildings.

#### **Construction**

Project-related construction activities would involve the use of larger amounts of hazardous materials than would project operation. Construction activities would include the use of materials such as fuels, lubricants, and greases in construction equipment and coatings used in construction. However, the materials used would not be in such quantities or stored in a manner that would pose a significant safety hazard. These activities would also be short term or one time and would cease upon completion of the proposed project's construction phase. Project construction workers would be trained in safe handling and hazardous materials use.

The use, storage, transport, and disposal of construction-related hazardous materials would be required to conform to existing laws and regulations. Compliance with applicable laws and regulations would ensure that all potentially hazardous materials are used and handled in an appropriate manner and would minimize the potential for safety impacts. For example, all spills or leakage of petroleum products during construction activities must be immediately contained, the hazardous material identified, and the material remediated in compliance with state and local regulations. All contaminated waste would be collected and disposed of at an appropriately licensed disposal or treatment facility. Furthermore, strict adherence to all emergency response plan requirements of Orange County and the OCFA would be required throughout the project construction phase. Therefore, hazards to the public or the environment arising from the routine use of hazardous materials during project construction would be less than significant.

#### **Grading Activities**

Grading activities required to develop the project would involve the disturbance of on-site soils. The handling and transport of contaminated soils found at the VMF could expose workers and the surrounding environment to hazardous materials, and impacts could be potentially significant.

#### **Demolition**

Demolition of buildings and equipment on-site has the potential to expose and disturb ACM found in existing buildings on-site. Destructive sampling for ACM was conducted on all buildings except the library. Therefore, a follow-up investigation would need to be conducted for the library structure after that building is vacated. ACM releases could pose significant risks to persons living and working in and around the project site as well as to project construction workers. These materials must be removed by a licensed and Cal/OSHA-registered asbestos abatement contractor prior to any demolition or renovation activity that would disturb the material. Demolition and ACM removal activities would be conducted in accordance with the South Coast Air Quality

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Management District's Rule 1403, California OSHA regulations, 40 CFR Parts 61 and 763, and 29 CFR Part 1926.

#### Operation

Operation of the proposed project would involve the use of small amounts of hazardous materials, such as industrial cleansers, greases, and oils for cleaning and maintenance purposes. The use, storage, transport, and disposal of hazardous materials would be governed by existing regulations of several agencies, including the EPA, US Department of Transportation, California Division of Occupational Safety and Health, and the OC EHD. Compliance with applicable laws and regulations governing the use, storage, transportation, and disposal of hazardous materials would ensure that all potentially hazardous materials are used and handled in an appropriate manner and would minimize the potential for safety impacts. The proposed project would be operated with strict adherence to all emergency response plan requirements of the OCFA. Mandatory compliance with laws and regulations would ensure that operational impacts would be less than significant.

However, the presence of PCE and trimethylbenzene concentrations at the VMF exceed the DTSC's residential screening level and could pose a significant impact due to indoor vapor intrusion.

Schools within one-quarter mile of the project site include the Laguna Niguel Kinder Care, immediately north of the OCFA fire station across Pacific Island Drive, and Ocean View School, approximately 0.2 mile east of the project site. The proposed project would not include industrial land uses that could routinely emit toxic air contaminants in concentrations that could be hazardous to persons at schools within one-quarter mile of the site. As stated above, the proposed development of residential and commercial uses would use relatively small amounts of hazardous materials and would be required to comply with state and local hazardous materials regulations.

Mitigation measures HAZ-1 through HAZ-3 would require the preparation of a soil management plan, which will assist in the identification and safe removal of petroleum and VOC-impacted soil, post-grading soil vapor survey to verify hazards are fully remediated, and asbestos survey to prevent the unanticipated release of asbestos-containing materials. Impacts related to the transport, use, and/or disposal of hazardous materials would be mitigated to less than significant with the implementation of mitigation measures HAZ-1 through HAZ-3.

***Level of Significance Before Mitigation:*** With the implementation of PPP HAZ-1 through HAZ-3, Impact 5.8-1 would be potentially significant.

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**Impact 5.8-2: The project site is on a list of hazardous materials sites and, as a result, could create a hazard to the public or the environment. [Threshold H-4]**

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DTSC tracks any reports received from cities, counties, or state agencies of hazardous waste disposal on land owned or leased by a city, county, or state agency where hazardous waste was released into the environment, and provides the information to CalEPA for inclusion in the Cortese list. The Cortese list includes hazardous materials sites compiled pursuant to Government Code Section 65962.5.

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The project site was identified on the Cortese List due to the USTs removed from the VMF and former fire station. As noted in Impact 5.8-1, there is the potential for the discovery of contamination during grading activities, and impacts are potentially significant.

Mitigation measures HAZ-1 through HAZ-3 would require the preparation of a soil management plan, which will assist in the identification and safe removal of petroleum and VOC-impacted soil, post-grading soil vapor survey to verify hazards are fully remediated, and asbestos survey to prevent the unanticipated release of asbestos-containing materials. Impacts related to the transport, use, and/or disposal of hazardous materials would be mitigated to less than significant with the implementation of mitigation measures HAZ-1 through HAZ-3.

*Level of Significance Before Mitigation:* Potentially significant.

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**Impact 5.8-3: The project site is not in the vicinity of an airport or within the jurisdiction of an airport land use plan. [Threshold H-5]**

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The City of Laguna Niguel, including the project site, is not within an airport land use plan or within two miles of a public airport. The closest public airport is the John Wayne Airport in Santa Ana, approximately 13.6 miles northwest of the site (AirNav 2019). Therefore, no impact would occur.

*Level of Significance Before Mitigation:* No impact.

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**Impact 5.8-4: Project development could affect the implementation of an emergency responder or evacuation plan. [Threshold H-6]**

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The OCSD, and the OCFA are responsible for coordinating all emergency management activity in the city and implementing the County's EOP.

Construction activities associated with the proposed project, including staging and stockpiling, would occur within the project boundaries and not on any major arterials or highways that could be used during potential emergency situations. The proposed project would also be required to provide adequate access for emergency vehicles per the California Fire Code.

Additionally, storage of construction materials and construction equipment—such as construction office trailers, cranes, storage containers, and trailers detached from vehicles—is prohibited on City property, including City streets, without a permit. Project construction and operation would comply with City requirements regarding storage on City property, including City streets. Construction material and equipment would be staged or stored on-site and would not interfere with emergency access to or evacuation from surrounding properties. Impacts would be less than significant.

Development of the proposed project would be required to incorporate all applicable design and safety requirements from the most current adopted fire codes, building codes, and nationally recognized fire and life safety standards, such as those in the Laguna Niguel Municipal Code, which incorporates by reference the latest

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California Fire Code. The City would be responsible for reviewing project compliance with related codes and standards prior to issuance of building permits.

Additionally, during the building plan check and development review process, the City would coordinate with the OCFA and OCSD to ensure that the necessary fire prevention and emergency response features are incorporated into the proposed project and that adequate circulation and access (e.g., adequate turning radii for fire trucks) are provided in the traffic and circulation components of the proposed project.

During project operation, Pacific Island Drive, Crown Valley Parkway, and Alicia Parkway would still be available as major evacuation routes. No policy or procedural changes to an existing risk management plan, emergency response plan, or evacuation plan would be required due to project implementation. Furthermore, during an unanticipated disaster event, the emergency response agencies (i.e., OCSD and OCFA) would implement operational protocols, plans, and programs on a case-by-case basis to facilitate emergency evacuations and/or response, which would consider traffic conditions at the time of the emergency. In such instances, traffic would be routed along the City's numerous disaster routes, as determined appropriate by the responding agencies.

Based on the above, the proposed project would not impair implementation of or physically interfere with an adopted emergency response plan or emergency evacuation plan.

*Level of Significance Before Mitigation:* Less than significant.

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**Impact 5.8-5: The project site is in adjacent to a Very High Fire Hazard Severity Zone and could expose structures and/or residences to fire danger. [Threshold H-7]**

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The project site is adjacent to a local responsibility area for Very High FHSZ (CAL FIRE 2011, 2019). OCFA provides fire and emergency medical response to the City of Laguna Niguel. The OCFA and the OCSD implement the County EOP, which addresses how the County should respond to extraordinary events or disasters (including urban and wildland fires), from preparedness phase through recovery. OCFA Fire Station No. 5 is located within the project site at 23600 Pacific Island Drive. The proposed project would provide site-specific on- and off-site access and circulation for emergency vehicles and services during the proposed project's construction and operational phases. Also, design of the proposed project would comply with the California Building Code, the California Fire Code, and the OCFA Fire Prevention Guidelines.

*Level of Significance Before Mitigation:* With the implementation of PPP W-1, Impact 5.8-5 would be less than significant.

### 5.8.5 Cumulative Impacts

The geographic area considered for cumulative impacts is the City of Laguna Niguel. Hazards and hazardous waste impacts are typically unique to each site and do not usually contribute to cumulative impacts. Cumulative development projects would be required to assess potential hazardous materials impacts on the development site prior to grading. The project and other cumulative projects would be required to comply with laws and regulations governing hazardous materials and hazardous waters used and generated as described in Section

## 5. Environmental Analysis HAZARDS AND HAZARDOUS MATERIALS

5.8.1.1. Therefore, cumulative impacts from past, present, and reasonably foreseeable future projects related to hazards and hazardous materials would be less than significant after regulatory compliance.

### 5.8.6 Level of Significance Before Mitigation

Impact 5.8-3 has no impacts and Impact 5.8-4 would be less than significant.

Without mitigation, these impacts would be **potentially significant**:

- **Impact 5.8-1** Hazards to the public or the environment due to contaminated soils could be potentially significant. Furthermore, the County Library has not been inspected for ACMs.
- **Impact 5.8-2** Hazards from contaminated soils may be encountered during construction.

### 5.8.7 Mitigation Measures

#### Impact 5.8-1

HAZ-1 Prior to issuance of grading permits, the project applicant shall prepare and implement a soils management plan (SMP) for the vehicle maintenance facility and the former fire station. The SMP shall be approved by the City and the appropriate oversight agency, such as Orange County Environmental Health Department or Department of Toxic Substances Control. Prior to grading, proper identification and removal of petroleum (>100 mg/kg) and VOC-impacted soil shall occur. The SMP will ensure that safe and appropriate handling, transportation, off-site disposal, reporting, oversight, and protocols are used during removal of the contaminated soil. The SMP shall establish methodology and procedures to perform additional testing during grading if unknown hazardous materials are encountered. If, during grading activities, additional contamination is discovered, grading within that area shall be temporarily halted and redirected around the area until the appropriate evaluation and follow-up remedial measures are implemented in accordance with the SMP to render the area suitable to resume grading activities. Soil remediation and/or export of hazardous materials must be performed in accordance with the appropriate agency's requirements (Regional Water Quality Control Board, Orange County Environmental Health Department, Department of Toxic Substances Control, and/or South Coast Air Quality Management District).

HAZ-2 After grading is complete, the project applicant shall perform a post-grading soil vapor survey within the footprint of future structures in the areas of the vehicle maintenance facility and former fire station. The survey shall be approved by the City and the appropriate oversight agency (OC EHD or DTSC) prior to sign-off of the grading permit.

HAZ-3 Prior to the issuance of a demolition permit for any structure on the property, the project applicant shall conduct a comprehensive survey for asbestos-containing materials to identify the locations and quantities of asbestos-containing materials in above-ground structures. The

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project applicant shall retain a licensed or certified asbestos consultant to inspect buildings and structures on-site. If asbestos is discovered, the project applicant shall retain a licensed or certified contractor to remove and dispose of all asbestos containing materials in accordance with the appropriate South Coast AQMD asbestos-containing material removal practices and procedures.

#### Impact 5.8-2

Mitigation measures HAZ-1 and HAZ-2 apply to Impact 5.8-2.

### 5.8.8 Level of Significance After Mitigation

The mitigation measures would reduce potential impacts of hazards and hazardous materials to less than significant levels. No significant unavoidable adverse impacts relating to hazards have been identified.

### 5.8.9 References

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## 5. Environmental Analysis

### 5.9 HYDROLOGY AND WATER QUALITY

This section of the Draft Environmental Impact Report (DEIR) evaluates the potential impacts of the Laguna Niguel City Center Mixed Use Project (proposed project) to hydrology and water quality conditions in the City of Laguna Niguel (City). Hydrology deals with the distribution and circulation of water, both on land and underground. Water quality deals with the quality of surface and groundwater. Surface water includes lakes, rivers, streams, and creeks; groundwater is under the earth's surface.

The analysis in this section is based in part on the following technical report(s):

- *Conceptual Hydrology Study*, Fuscoe Engineering Inc., September 2, 2021.
- *Water Quality Management Plan*, Fuscoe Engineering Inc., February 1, 2022.
- *Response to Comments on the Geotechnical Evaluation Report for CEQA*, Geotechnical Professionals Inc., November 2019.
- *Updated Geotechnical Evaluation Report for CEQA, Proposed Laguna Niguel Town Center*, Geotechnical Professionals Inc., August 13, 2021.

Complete copies of these studies are in the technical appendices to this Draft EIR (Appendix I1, I2, I3, and G1, respectively).

#### 5.9.1 Environmental Setting

##### 5.9.1.1 REGULATORY BACKGROUND

###### Federal

###### *Clean Water Act and National Pollution Elimination Discharge System*

The Clean Water Act establishes regulations to control the discharge of pollutants into the waters of the United States and regulates water quality standards for surface waters (US Code, Title 33, §§ 1251 et seq.). Under the act, the US Environment Protection Agency (EPA) is authorized to set wastewater standards and runs the National Pollutant Discharge Elimination System (NPDES) permit program. Under the NPDES program, permits are required for all new developments that discharge directly into Waters of the United States. The federal Clean Water Act requires wastewater treatment of all effluent before it is discharged into surface waters. NPDES permits for such discharges in the project region are issued by the Santa Ana Regional Water Quality Control Board (RWQCB).

###### *Safe Drinking Water Act*

The Safe Drinking Water Act, the principal federal law intended to ensure safe drinking water to the public, was enacted in 1974 and has been amended several times since it came into law. The act authorizes the EPA to set national standards for drinking water, called the National Primary Drinking Water Regulations, to protect

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### HYDROLOGY AND WATER QUALITY

against both naturally occurring and man-made contaminants. These standards set enforceable maximum contaminant levels in drinking water and require all water providers in the United States to treat water to remove contaminants, except for private wells serving fewer than 25 people. In California, the State Water Resources Control Board (SWRCB) conducts most enforcement activities. If a water system does not meet standards, it is the water supplier's responsibility to notify its customers.

#### State

##### *Porter-Cologne Water Quality Control Act*

Under the Porter-Cologne Water Quality Control Act (Water Code §§ 13000 et seq.), which was passed in California in 1969 and amended in 2013, the SWRCB has authority over State water rights and water quality policy. This act divided the state into nine regional basins, each under the jurisdiction of a Regional Water Quality Control Board to oversee water quality on a day-to-day basis at the local and regional level. RWQCBs engage in a number of water quality functions in their respective regions. RWQCBs regulate all pollutant or nuisance discharges that may affect either surface water or groundwater. The project site and the City are within the jurisdiction of the San Diego RWQCB.

##### *State Water Resources Control Board General Construction Permit*

The SWRCB has adopted a statewide Construction General Permit (Order No. 2012-0006-DWQ) for stormwater discharges associated with construction activity. These regulations prohibit the discharge of stormwater from construction projects that include one acre or more of soil disturbance. Construction activities subject to this permit include clearing, grading, and other disturbance to the ground, such as stockpiling or excavation, that results in soil disturbance of at least one acre of total land area. Individual developers are required to submit permit registration documents (PRD) to the SWRCB for coverage under the NPDES permit prior to the start of construction. The PRDs include a notice of intent, risk assessment, site map, Stormwater Pollution Prevention Plan (SWPPP), annual fee, and a signed certification statement. The PRDs are submitted electronically to the SWRCB via the Stormwater Multiple Application and Report Tracking System website.

The NPDES Construction General Permit requires all dischargers to (1) develop and implement a SWPPP that specifies best management practices (BMP) to be used during construction of the project; (2) eliminate or reduce non-storm water discharge to stormwater conveyance systems; and (3) develop and implement a monitoring program of all specified BMPs. The two major objectives of the SWPPP are to (1) help identify the sources of sediment and other pollutants that affect the water quality of stormwater discharges and (2) to describe and ensure the implementation of BMPs to reduce or eliminate sediment and other pollutants in stormwater as well as non-storm water discharges.

##### *State Water Resources Control Board Trash Amendments*

On April 7, 2015, the SWRCB adopted "Amendment to the Water Quality Control Plan for Ocean Waters of California (Ocean Plan) to Control Trash," and "Part 1, Trash Provisions of the Water Quality Control Plan for Inland Surface Waters, Enclosed Bays, and Estuaries of California." They are collectively referred to as "the



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Trash Amendments.” The purpose of the trash amendments is to reduce trash entering waterways statewide, provide consistency in the SWRCB’s regulatory approach to protect aquatic life and public health beneficial uses, and reduce environmental issues associated with trash in state waters. There are two compliance tracks:

- **Track 1.** Permittees install, operate, and maintain a network of certified full-capture systems to capture trash in storm drains—in priority land use areas for municipal systems and the entire facility for industrial and commercial permit holders.
- **Track 2.** Permittees install, operate, and maintain any combination of controls (structural and/or institutional) anywhere in their jurisdiction as long as they demonstrate that their system performs as well as Track 1.

The Trash Amendments provide a framework for permittees to implement its provisions. Full compliance must occur within 10 years of the permit, and permittees must meet interim milestones, such as average load reductions of 10 percent per year.

### Regional

#### *Water Quality Control Plan for the San Diego Basin*

The San Diego Regional Board’s Basin Plan is designed to preserve and enhance water quality and protect the beneficial uses of all regional waters. Specifically, the Basin Plan:

- Designates beneficial uses for surface and ground waters.
- Sets narrative and numerical objectives that must be attained or maintained to protect the designated beneficial uses and conform to the state's antidegradation policy.
- Describes implementation programs to protect the beneficial uses of all waters in the region.
- Describes surveillance and monitoring activities to evaluate the effectiveness of the Basin Plan. (San Diego RWQCB 2016)

#### *San Diego RWQCB MS4 Permit*

MS4 permits are issued by the local RWQCB to address stormwater quality issues specific to the local watershed or region. MS4 permits require permittees to develop and implement a stormwater management program with the goal of reducing the discharge of pollutants to the maximum extent practicable (MEP). The stormwater management program—or drainage area management plan as it is referred to in the Orange County MS4 Permit (Order No. R9-2015-0001 NPDES Permit No. CAS0102966)—must specify BMPs approved by the San Diego RWQCB.

The proposed project and its facilities would discharge into the MS4 within the jurisdiction of Laguna Niguel. Pursuant to the Orange County MS4 Permit, the City is responsible for controlling or limiting urban pollutants generated by postconstruction activities from reaching their MS4s. The proposed project is therefore subject

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to the requirements of the Orange County MS4 Permit (San Diego Region) as it is applied by the permittee and its co-permittees.

#### *South Orange County Watershed Management Area Integrated Regional Water Management Plan*

The South Orange County Watershed Management Area Integrated Regional Water Management Plan comprises goals, objectives, and methodologies for prioritizing projects for Integrated Regional Water Management grant funding. The plan also provides an overview of watershed management governance; a description of the water challenges facing the region; stakeholder involvement opportunities; climate change modeling for how the region will be impacted by sea level rise and other factors; and coordination with existing efforts, plans, and regulatory compliance efforts (OCWD 2018).

The plan was prepared to identify and implement water management solutions on a regional scale. Agencies, organizations, and stakeholders collaborated to identify water resource needs, develop goals to improve water resource management, and evaluate projects for increased regional self-reliance.

#### *South Orange County Watershed Management Area Water Quality Improvement Plan*

The MS4 permit regulates stormwater runoff from urbanized areas in the San Diego Region by requiring development and implementation of a water quality improvement plan for “watershed management areas.” The improvement plan identifies high-priority water-quality conditions and sets goals, strategies, and schedules to address them. Monitoring the progress and effectiveness of the strategies informs an “adaptive management” approach to updating and amending the plan over time (OCPW 2021a).

#### *Orange County Model Water Quality Management Plan and Technical Guidance Document*

The Orange County Model Water Quality Management Plan (WQMP) and Technical Guidance Document (TGD) have been developed to aid the County of Orange, the Orange County Flood Control District, and cities of Orange County and development project proponents with addressing post-construction urban runoff and stormwater pollution from new development and significant redevelopment projects that qualify as priority projects.

The Model WQMP and TGD describe the process that permittees will employ for developing a project WQMP for individual new development and significant redevelopment projects. A project WQMP is a plan for minimizing the adverse effects of urbanization on site hydrology, runoff flow rates, and pollutant loads. Development of a Model WQMP and TGD to provide guidance for preparation of a project WQMP is required by the NPDES permit. The permit also requires development of conceptual or preliminary WQMPs prior to submission of a project WQMP (OCPW 2021b).

### **Local**

#### *Laguna Niguel Local Implementation Plan*

Under the City’s Local Implementation Plan (LIP), land development policies pertaining to hydromodification and Low-Impact Development (LID) are regulated for new developments and significant redevelopment

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projects. The term “hydromodification” refers to the changes in runoff characteristics from a watershed caused by changes in land use and condition. The use of LID BMPs in project planning and design is to preserve a site’s predevelopment hydrology by minimizing the loss of natural hydrologic processes such as infiltration, evapotranspiration, and runoff detention. LID BMPs try to offset these losses by introducing structural and nonstructural design components into the project’s land plan that restore these water quality functions. These land development requirements are detailed in the countywide model WQMP and TGD, which cities have incorporated into their discretionary approval processes for new development and redevelopment projects.

### *Laguna Niguel Municipal Code*

The purpose of Title 6, Article 5, Prohibition of Non-Stormwater Discharges into Storm Sewer, is to implement the MS4 NPDES permit requirements, which include:

- Developing and implementing runoff management programs and implementation plans.
- Enacting legislation and ordinances as necessary to ensure compliance with the runoff management programs and implementation plans.
- Pursuing enforcement actions as necessary to ensure compliance with runoff management programs and implementation plans.
- Prohibiting illicit and illegal discharges from entering the stormwater conveyance systems, subject only to specific exceptions.
- Ensure adequate response to emergency situations, including spills, leaks, and illicit or illegal discharges.
- Developing and requiring implementation of BMPs to ensure that pollution is reduced to the maximum extent practicable.

Title 8, Article 8, Grading and Excavation Code, regulates grading, drainage, and hillside construction. Section 8-1-805 requires grading permits for all project sites requiring excavation, fills, and paving. Each application for a grading permit requires plans and specifications and applicable soils engineering and engineering geology reports. Section 8-1-836 requires that erosion control plans prepared in accordance with the City’s Grading Manual be submitted to the Building Official for approval for projects under grading permits.

Title 8, Article 2, 2019 California Building Code and Related Codes, adopts the 2019 California Building Code by reference.

### *Water Quality Management Plans*

The City’s LIP includes a provision to prepare a project-specific WQMP for specified categories of development aimed at reducing pollutants in post-development runoff. Specifically, a project-specific WQMP includes BMPs approved by the San Diego RWQCB, where applicable, that address postconstruction management of stormwater runoff water quality. This includes operation and maintenance requirements for all structural or treatment control BMPs required for specific categories of developments (termed “priority

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development projects”) to reduce pollutants in post-development runoff to the maximum extent practicable (MEP). The categories of development that require preparation of a project-specific WQMP include:

- All significant redevelopment projects, where significant redevelopment is defined as the addition or replacement of 5,000 or more square feet of impervious surface on an already developed site.
- New development projects that create 10,000 square feet or more of impervious surface (collectively over the entire project site), including commercial, industrial, residential housing subdivisions, mixed-use, and public projects.
- Automotive repair shops.
- Restaurants where the land area of development is 5,000 square feet or more including parking area.
- All hillside developments on 5,000 square feet or more that are in areas with known erosive soil conditions or where the natural slope is 25 percent or more.
- Developments of 2,500 square feet or more of impervious surface adjacent to (within 200 feet) or discharging directly into environmentally sensitive areas, such as areas designated in the Ocean Plan as Areas of Special Biological Significance or water bodies listed on the CWA Section 303(d) list of impaired waters.
- Parking lots with 5,000 square feet or more of impervious surface exposed to stormwater runoff.
- Streets, roads, highways, and freeways with 5,000 square feet or more of paved surface shall incorporate EPA guidance, “Managing Wet Weather with Green Infrastructure: Green Streets” in a manner consistent with the MEP standard.
- Retail gasoline outlets of 5,000 or more square feet with a projected average daily traffic of 100 or more vehicles per day.

As required by the Laguna Niguel LIP and municipal ordinances on stormwater quality management, projects that result in 5,000 square feet or more of impervious surfaces must submit a priority-project-specific WQMP to the City for approval prior to the City issuing any building or grading permits. Thus, a project-specific Preliminary WQMP has been prepared for the proposed project by Fuscoe Engineering, Inc. (see Appendix I1).

#### 5.9.1.2 EXISTING CONDITIONS

##### Regional Drainage

The project site is in the Aliso Creek Watershed, which spans 35 square miles within the South Orange County Water Management Area. The Aliso Creek Watershed is a long, narrow coastal canyon with headwaters in the Cleveland National Forest. The Aliso Creek Watershed encompasses portions of the cities of Aliso Viejo, Dana

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Point, Laguna Beach, Laguna Hills, Laguna Niguel, Laguna Woods, Lake Forest, and Mission Viejo. The creek ultimately discharges into the Pacific Ocean at Aliso Beach.

### Local Surface Waters and Drainage

The existing topography of the project site is steep, dropping approximately 48 feet from the most northwest corner to the entry at Crown Valley Parkway. This results in an existing average slope of approximately 4.8 percent. The west side of the site is bounded by existing 2:1 manufactured slopes, and there are manufactured 2:1 slopes on the easterly side dropping to Alicia Parkway.

The majority of existing runoff is caught in above-grade drainage inlets throughout the project site and is diverted into the City's storm drain system southeast of the site in Crown Valley Parkway. Under existing conditions, runoff is discharged from the site at three places (see Figure 5.9-1, *Existing Conditions Hydrology Map*):

- Runoff from the bulk of the project site drains to the south. There are several drainage devices and catch basins on the southern portion of the project site that convey collected runoff to an existing 60-inch storm drain running through the property from Pacific Island Drive in the north to Crown Valley Parkway in the southwest. This storm drain is Orange County Flood Control District Facility No. J03P07 and connects off-site to a 96-inch storm drainpipe, which conveys runoff to Sulphur Creek Channel and Sulphur Creek Reservoir.
- Runoff drains via surface flow into Crown Valley Parkway at the drive entrance that serves both the Laguna Niguel Library and Laguna Niguel City Hall. Collected runoff then flows east along Crown Valley Parkway before entering the storm drain system discharging to Sulphur Creek Channel.
- Surface runoff from the north end of the site flows north toward Pacific Island Drive. Runoff on Pacific Island Drive flows east toward the intersection with Alicia Parkway, then south along Alicia Parkway toward Crown Valley Parkway.

### Groundwater

Historical groundwater depths at the project site range from 5 to 20 feet. During the geotechnical evaluation, groundwater was encountered at depths of approximately 14 to 24.5 feet below the existing site.

### 5.9.2 Thresholds of Significance

According to Appendix G of the CEQA Guidelines and the City's CEQA Manual, a project would normally have a significant effect on the environment if the project would:

- HYD-1 Violate any water quality standards or waste discharge requirements or otherwise substantially degrade surface or ground water quality.
- HYD-2 Substantially decrease groundwater supplies or interfere substantially with groundwater recharge such that the project may impede sustainable groundwater management of the basin.

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- HYD-3 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 a substantial erosion or siltation on- or off-site.
  - ii) Substantially increase the rate or amount of surface runoff in a manner which would result in flooding on- or offsite.
  - 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.
  - iv) Impede or redirect flood flows.
- HYD-4 In flood hazard, tsunami, or seiche zones, risk release of pollutants due to project inundation.
- HYD-5 Conflict with or obstruct implementation of a water quality control plan or sustainable groundwater management plan.

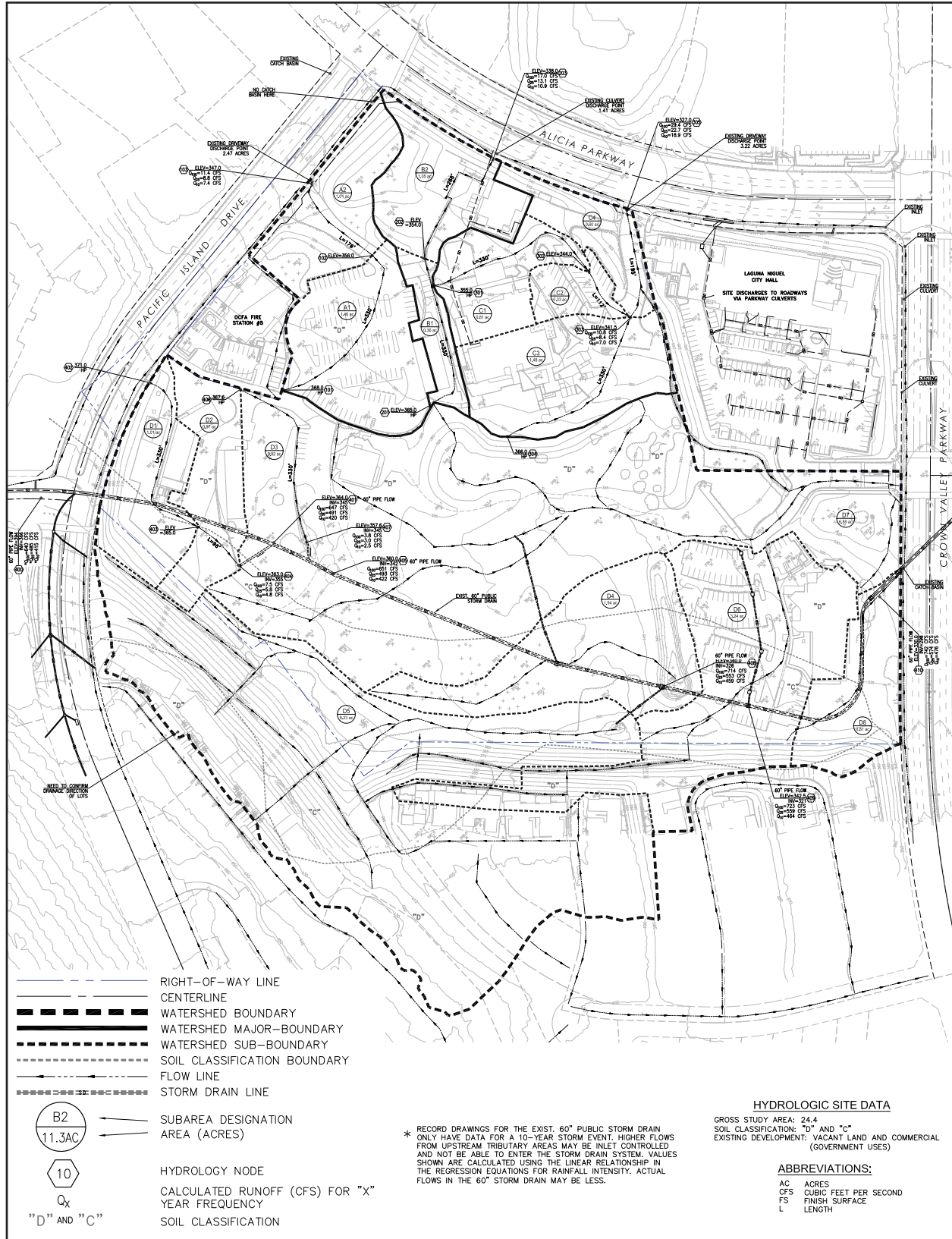
The City relies on the questions in Appendix G as the thresholds of significance for assessing impacts to hydrology and water quality, as augmented by the City's CEQA Manual:

- A project may not increase the flow ("Q") of runoff in the developed condition compared to the pre-development condition.
- A project may not increase the velocity of runoff from a project site in the developed condition compared to the pre-development condition.
- A project may not cause off-site erosion, either by storm flows or by nuisance flows.
- A project shall include a hydromodification analysis and comply with the County of Orange MS4 requirements.
- A project shall include a low impact development (LID) analysis consistent with adopted regulations. A component of the LID analysis is the ability to infiltrate flows. Infiltration in Laguna Niguel can often be infeasible either because the geologic structures do not infiltrate at acceptable rates, or infiltration could lead to geologic instability. If infiltration is not feasible, evidence must be presented documenting the infeasibility.

New development projects and site alterations to existing project sites require preparation of a hydrology and hydraulics (H&H) study and a preliminary WQMP by a qualified engineer.

Detention, retention, and/or water quality measures can take valuable space on a project site. Therefore, the sizing of such facilities must be included in the H&H and preliminary WQMP studies for review by City staff and its consultants. Additionally, long-term maintenance of such facilities must also be described, and the responsible party and funding source identified.

Figure 5.9-1 - Existing Conditions Hydrology Map  
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Source: FUSCOE, 2021

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### 5.9.3 Plans, Programs, and Policies

- PPP HYD-1 **Pollutant Discharge Elimination System (NPDES):** General Permit for Storm Water Discharges Associated with the Construction and Land Disturbance Activities, NPDES No. CAS000002. Compliance requires filing a Notice of Intent (NOI), a Risk Assessment, a Site Map, a Storm Water Pollution Prevention Plan (SWPPP) and associated best management practices (BMP), an annual fee, and a signed certification statement. Also, the County requires preparation of an erosion and sediment control plan for projects that disturb more than one acre of land and implementation of BMPs to control erosion, debris, and construction-related pollutants.
- PPP HYD-2 **Orange County MS4 Permit (Order No. R9-2015-0001 NPDES Permit No. CAS0109266):** The MS4 Permit requires new development and redevelopment projects to:
- Control contaminants into storm drain systems.
  - Educate the public about stormwater impacts.
  - Detect and eliminate illicit discharges.
  - Control runoff from construction sites.
  - Implement BMPs and site-specific runoff controls and treatments for new development and redevelopment.
- PPP HYD-3 As required by the Laguna Niguel Local Implementation Plan and municipal ordinances on stormwater quality management, the proposed project must submit a priority-project-specific final Water Quality Management Plan to the City for approval prior to the City issuing any building or grading permits.
- PPP HYD-4 Per the requirements of the Orange County Department of Public Works, as detailed in the Orange County Hydrology Manual and the Orange County Local Drainage Manual, the proposed project must submit a final Hydrology Report to the City for review and approval prior to the issuance of grading permits. Catch basin, drainage pipe sizing, and final sizing for the detention basin will be calculated in the final Hydrology Report so that the proposed project does not increase the flow and velocity of runoff in the developed condition compared to the pre-development condition.
- PPP GEO-1 The proposed project will be designed and constructed in accordance with the Laguna Niguel Building Code, which adopts the California Building Code (CBC), which is based on the International Building Code (IBC). New construction, alteration, or rehabilitation shall comply with applicable ordinances set forth by the City and/or by the most recent City building and seismic codes in effect at the time of project design. In accordance with Section 1803.2 of the 2019 CBC, a geotechnical investigation is required that must evaluate soil classification, slope stability, soil strength, position and adequacy of load-bearing soils, the effect of moisture variation on soil-bearing capacity, compressibility, liquefaction, and expansiveness, as

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necessary, determined by the City building official. The geotechnical investigation must be prepared by registered professionals (i.e., California Registered Civil Engineer or Certified Engineering Geologist). Recommendations included in the report pertaining to structural design and construction recommendations for earthwork, grading, slopes, foundations, pavements, and other necessary geologic and seismic considerations must be incorporated into the design and construction of the proposed project.

#### 5.9.4 Environmental Impacts

##### 5.9.4.1 IMPACT ANALYSIS

The following impact analysis addresses thresholds of significance. The applicable thresholds are identified in brackets after the impact statement.

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**Impact 5.9-1: The proposed project would not violate water quality standards or waste discharge requirements or otherwise substantially degrade surface or ground water quality. [Threshold HYD-1]**

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Redevelopment of the predominantly vacant project site would not violate water quality standards or water discharge requirements. A discussion of construction and operational phases as they relate to water quality standards and discharge requirements is provided below.

#### Construction

Construction activities associated with the proposed project would include demolition of existing improvements, grading, and installation of subdrains followed by installation of streets and all infrastructure and building construction, all of which could result in increased polluted stormwater runoff. During construction activities, the proposed project has the potential to produce typical pollutants such as nutrients, heavy metals, pesticides, and herbicides; toxic chemicals related to construction and cleaning; waste materials including wash water, paints, wood, paper, concrete, food containers, and sanitary wastes; and fuel and lubricants.

Since the project would disturb more than one acre of land, future development of the proposed project would require compliance with the statewide Construction General Permit, which requires the preparation and implementation of a SWPPP. A SWPPP estimates sediment risk to receiving waters from construction activities and specifies BMPs that would be used by the project to minimize pollution of stormwater.

Categories of BMPs used in SWPPPs are described in Table 5.9-1, *Construction BMPs*. Water quality impacts of project construction would be minimized to less than significant levels after implementation of the SWPPP and associated BMPs.

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**Table 5.9-1 Construction Best Management Practices**

Category	Purpose	Examples
Erosion Controls	Protects the soil surface and prevents soil particles from being detached by rainfall, flowing water, or wind.	Scheduling, preserving existing conditions, mulch, soil binders, geotextiles, mats, hydroseeding, earth dikes, swales, velocity dissipating devices, slope drains, streambank stabilization, compost blankets, soil preparation/roughening, and non-vegetative stabilization.
Sediment Controls	Traps soil particles after they have been detached and moved by rain, flowing water, or wind.	Barriers such as silt fences, straw bales, sandbags, fiber rolls, and gravel bag berms; sediment basins; sediment traps; check dams; storm drain inlet protection; compost socks and berms; biofilter bags; manufactured linear sediment controls; and cleaning measures such as street sweeping and vacuuming
Wind Erosion Controls	Minimizes dust nuisances.	Applying water or other dust palliatives to prevent or minimize dust nuisance, reducing soil-moving activities during high winds, and installing erosion control BMPs for temporary wind control.
Tracking Controls	Prevents or reduces the tracking of soil offsite by vehicles	Stabilized construction roadways and construction entrances/exits and entrance/outlet tire wash.
Non-Storm Water Management Controls	Prevents pollution by limiting or reducing potential pollutants at their source or eliminating off-site discharge. Prohibits illicit connections or discharges.	Water conservation practices, BMPs specifying methods for: dewatering operations; temporary stream crossings; clear water diversions; pile driving operations; temporary batch plants; demolition adjacent to water; materials over water; potable water and irrigation; paving and grinding operations; cleaning, fueling, and maintenance of vehicles and equipment; concrete curing; concrete finishing.
Waste Management and Controls (i.e., good housekeeping practices)	Management of materials and wastes to avoid contamination of stormwater.	Proper material delivery and storage and material use, spill prevention and control, stockpile management, contaminated soil management, and management of solid, concrete, sanitary/septic, liquid, and hazardous wastes.

Source: CASQA 2019.

**Operations**

Operation and maintenance of the project would produce typical pollutants, including suspended solids/sediment, nutrients, heavy metals, pathogens (bacteria/virus), pesticides, oil and grease, toxic organic compounds, trash and debris, and household hazardous wastes. Additionally, landscaped areas throughout the project site are likely to produce suspended solids/sediment, nutrients, and pesticides.

The existing 60-inch city storm drain that runs from Pacific Island Drive/Highland Drive to Crown Valley Parkway would be removed, and a new 60-inch storm drain would be installed to follow the alignment of the

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proposed internal roadways (see Figure 5.9-2, *Water Quality Management Plan*). The new alignment would connect to the existing 60-inch storm drain at the intersection of Pacific Island Drive and Highlands Avenue, follow Pacific Island Drive easterly to the west entry of the development off Pacific Island Drive, follow the roadway through the approximate center of the development and cross the parking lot of the retail center on the south side of the project, reconnecting to the existing 60-inch storm drain system west of the southbound side of Crown Valley Parkway. This primary storm drain would convey flows originating from development north of the site (draining down Highlands Avenue) through the site to the connection point at Crown Valley. These flows would bypass the development through this pipe and not contribute any tributary flow (see Figure 5.9-2).

A secondary, private storm drain system would be constructed within the proposed project roadways and convey the project flows through a detention system designed for hydromodification. It is anticipated that these local drainage facilities would have 8- to 10-inch pipe diameters. Small landscape drains would connect to the local drain with 4-inch or 6-inch drainpipes throughout the project site. The detention system would be under the proposed parking lot of the retail/market area on the south side of the project site (see Figure 5.9-2, *Water Quality Management Plan*).

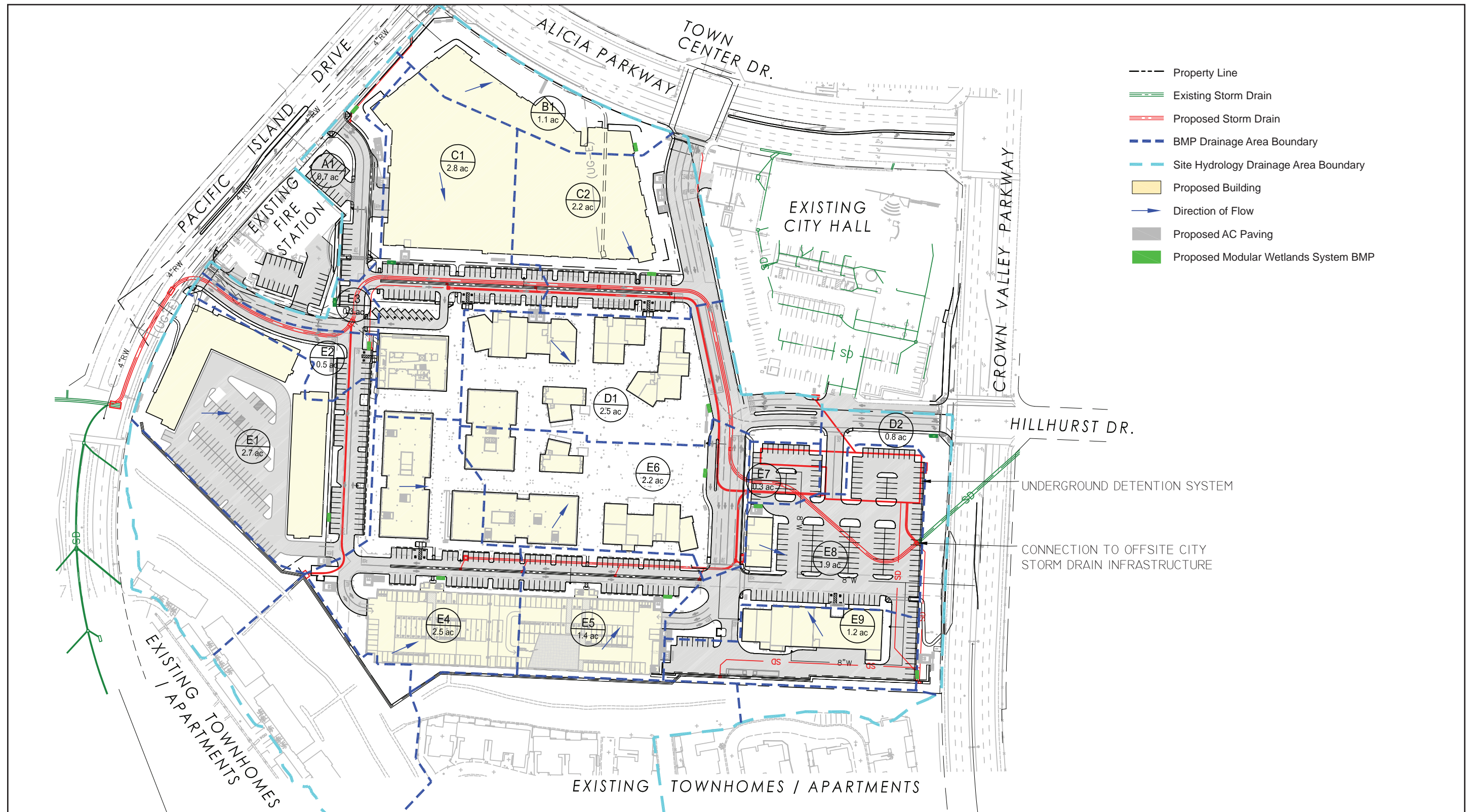
The stormwater runoff from the proposed development would discharge to the same storm sewer system on Crown Valley Parkway as the runoff under existing conditions and would continue to enter Sulfur Creek before discharging to Aliso Creek. Existing slopes to the north and west of the project site would be retained and are equipped with drainage systems to capture and divert runoff.

According to the San Diego RWQCB Order No. R9-2015-0001 NPDES Permit No. CAS0109266 (MS4 permit), a project of this type is classified as a priority development project (new development project) because the following criteria apply:

- Restaurants where the land area of development is 5,000 square feet or more including parking areas.
- Parking lots 5,000 square feet or more, or parking lots with 15 parking spaces or more, including associated drive aisle, and potentially exposed to urban stormwater runoff.
- Redevelopment project that creates, adds, or replaces at least 5,000 square feet of impervious surface on an already developed site, and the existing development or redevelopment project falls under another priority development project category.

Therefore, a WQMP is required for the project under the MS4 permit. The Preliminary WQMP prepared for the project specifies BMP categories to be implemented by the project (see Appendix I). The City requires that all qualifying development projects prepare and submit a final WQMP to the City for review and approval prior to the issuance of grading permits.

Figure 5.9-1 - Water Quality Management Plan  
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- Property Line
- Existing Storm Drain
- Proposed Storm Drain
- BMP Drainage Area Boundary
- Site Hydrology Drainage Area Boundary
- Proposed Building
- Direction of Flow
- Proposed AC Paving
- Proposed Modular Wetlands System BMP

0 170  
Scale (Feet)



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### *Site Design BMPs*

The proposed development includes construction of buildings, parking areas, walkways, and landscape areas. The following site design BMPs are detailed in the project's Preliminary WQMP to be incorporated into the proposed project design to ensure post-development runoff flow rates and durations do not exceed existing conditions:

- **Minimize Impervious Area.** Impervious surfaces would be minimized by incorporating landscaped areas throughout the site surrounding the proposed buildings. Landscaping would be provided throughout the site within the common areas as well as around the perimeter of the buildings.
- **Preserve Existing Drainage Patterns and Time of Concentration (to the MEP).** Runoff from the site would continue to flow similar to existing conditions. Low flows and first-flush runoff would drain to landscaping and bioretention BMPs.
- **Disconnect Impervious Areas.** Runoff from the site would drain into self-treating landscaping or proprietary biotreatment BMPs prior to flowing to a detention system for storage and controlled release of flows to protect downstream receiving waters.
- **Protect Existing Vegetation and Sensitive Areas.** Under existing conditions, there are no sensitive areas to protect. The project design would create new vegetated areas throughout the property.
- **Revegetate Disturbed Areas.** All disturbed areas on the project site would be paved, covered, or revegetated.
- **Soil Stockpiling and Site-Generated Organics.** As part of the grading and stockpiling activities on the site, organic materials that are suitable for assisting with the revegetation of the site would be collected, stored, and reused during planting of the site, where feasible.
- **Fire-scaping.** The proposed project is designed to meet the Orange County Fire Authority's fuel modification standards.
- **Water Efficient Landscaping.** Xeriscape landscaping is not currently proposed for the project. However, native and/or drought-tolerant landscaping would be incorporated into the site design consistent with City guidelines.
- **Slopes and Channel Buffers.** Slopes on the project site would be protected and reinforced to reduce the risks of scouring.

### *Low Impact Development and Hydromodification BMPs*

The primary goal of LID is to preserve the predevelopment hydrology of a project site and address post-development runoff through structural and nonstructural BMPs that store, infiltrate, evaporate, and detain runoff. BMP implementation is evaluated by site design components and performance feasibility in preventive and mitigation measures. Preventive measures are site planning, design, and construction practices that focus on minimizing the amount of land disturbed and retaining the project site's natural drainage characteristics to

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the MEP. Project design features include structural BMPs that manage impacts from stormwater runoff and provide pollutant reduction for mitigating the design capture volume or design flow associated with each drainage area on the project site.

Hydromodification control is the method used to address hydrologic conditions of concern in a project's WQMP. Hydromodification control BMPs range from structural BMPs designed to control flow duration to in-stream measures such as grade control structures. In-stream measures can be desirable when stream channels are already degraded due to hydromodification caused by development. There are various alternatives for siting hydromodification control measures, including on-site, in-stream, and regional.

The project site consists of 15 drainage management areas (DMA), shown on Figure 5.9-2, *Water Quality Management Plan*. The required design flow for each DMA is shown in Table 5.9-2, *BMP Design Summary*. The table also shows the total flow capacity for the proposed BMPs. As shown in the table, all BMPs have adequate capacity to treat the design stormwater flows.

**Table 5.9-2 Best Management Practices Design Summary**

DMA	Total Drainage Area (ac)	Percent Impervious <sup>1</sup> (%)	Design Flow (cfs)	BMP Capacity (cfs)
A1	0.7	90	0.225	0.237
B1	1.1	80	0.322	0.346
C1	2.8	80	0.819	0.924
C2	2.2	90	0.708	0.924
D1	2.5	90	0.804	0.924
D2	0.8	90	0.257	0.268
E1	2.7	90	0.869	0.924
E2	0.5	90	0.258	0.268
E3	0.3	90		
E4	2.5	90	0.804	0.924
E5	1.4	80	0.410	0.462
E6	2.2	80	0.644	0.693
E7	0.3	85	0.676	0.693
E8	1.9	85		
E9	1.2	85	0.369	0.462

Source: Fuscoe 2022.

Notes: cfs = cubic feet per second; ac = acres

<sup>1</sup> The square footage for the proposed buildout used in the WQMP is different than the square footage as described in Chapter 3 of this EIR. However, the WQMP relies upon industry-standard impervious surface area averages consistent with the percent coverage used in the Orange County Hydrology Manual. For urban developed areas, the design flow is relatively insensitive to minor changes in impervious ratios since that ratio almost always lies in the 0.8 to 0.9 interval. By staying on the higher side of the impervious ratio, the runoff reported will remain conservative.

The site is generally underlain by shallow fill soils that consist predominantly of expansive clay soils, except the western portion of the site, where deeper fill soils were encountered. Given the subsurface conditions, storm water infiltration at the site is not feasible because of the very low anticipated infiltration rates. In addition, because of the expansion potential of the on-site soils and presence of deep fill soils along the western side of the site, infiltration of stormwater is not recommended by the project's geotechnical engineer (refer to Appendix G of the WQMP in Appendix I1.).



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Therefore, modular wetlands systems or equivalent biofiltration BMPs are proposed throughout the project site (see Figure 5.9-2, *Water Quality Management Plan*). Each DMA has a separate modular wetland system except DMAs E1 and E2 have a combined system, as do E7 and E8. Modular wetlands systems use multistage treatment processes, including screening media filtration, settling, and biofiltration. The pretreatment chamber contains the first three stages of treatment and includes a catch basin inlet filter to capture trash, debris, gross solids, and sediments; a settling chamber for separating out larger solids; and a media filter cartridge for capturing fine suspended solids, metals, nutrients, and bacteria. Runoff then flows through the wetland chamber and a variety of physical, chemical, and biological processes. As stormwater passes down through the planting soil, pollutants are filtered, adsorbed, biodegraded, and sequestered by the soil and plants. The discharge chamber at the end of the unit collects treated flows and discharges back into the storm drain system.

Additionally, the proposed project would implement the following BMPs:

- **Nonstructural source control BMPs.** Education for property owners, tenants, and occupants; activity restrictions; common area landscape management; BMP maintenance; common area litter control; employee training; common area catch basin inspection; and street sweeping private streets and parking lots.
- **Structural source control BMPs.** Storm-drain-system stenciling and signage; design and construction of trash and waste storage areas to reduce pollution introduction; use of efficient irrigation systems and landscape design, water conservation, smart controllers, and source control; protection of slopes and channels and provision of energy dissipation; provision of hillside landscaping; and wash water control for food preparation areas.

The project site's runoff discharges to downstream conveyances that are considered susceptible to hydromodification because they are unlined, largely earthen channels. Aliso Creek and Sulfur Creek are not concrete lined. Therefore, under the South Orange County TGD hydromodification requirements, post-development runoff flow rates and durations cannot exceed pre-development, naturally occurring, runoff-flow rates and durations by more than 10 percent of the time, from 10 percent of the 2-year runoff event up to the 10-year runoff event. To mitigate the increased flows under post-development conditions, an underground detention system would be installed to decrease post-development peak flows to less than the pre-development flows for the 2-year up to the 25-year storm frequency events. According to the Preliminary WQMP a 73,125-cubic-foot detention system is required to mitigate peak storm flows for the proposed project. An 80,000-cubic-foot underground detention system is proposed under the parking lot of the retail/market area as specified in the Preliminary WQMP. Table 5.9-3, *Pre- and Post-development Peak Flows*, shows pre-development peak flows for the 2-year storm event up to the 25-year storm events and the mitigated, post-development peak flows for the same storm events. The detention system would capture post-development flows and offset the increase in storm flow.

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**Table 5.9-3 Pre- and Post-development Peak Flows**

Return Period	Pre-development Flow (cfs)	Post-development (Mitigated) Flow (cfs)	Percent Difference (%)
2 year	13.42	10.48	-22
5 year	16.74	14.12	-16
10 year	21.26	16.87	-21
25 year	28.38	22.33	-21

Source: Fuscoe 2022.

Note: cfs = cubic feet per second

### Summary

Construction and operations of the proposed project would convert predominantly pervious areas to mostly impervious surfaces, resulting in potential impacts to stormwater quality under construction and operational phases. However, implementation of construction and operational BMPs, including the preparation of a final WQMP and a SWPPP, would reduce water quality impacts to less than significant levels. Overall, the project would meet water quality standards delineated in adopted water quality permits from the RWQCB upon implementation of the aforementioned BMPs, and construction and operational water quality impacts would be less than significant.

**Level of Significance Before Mitigation:** With the implementation of PPP HYD-1 through HYD-3 and PPD-GEO-1, Impact 5.9-1 would be less than significant.

**Impact 5.9-2: The proposed project would not substantially decrease groundwater supplies or interfere substantially with groundwater recharge such that the project may impede sustainable groundwater management of the basin. [Thresholds HYD-2]**

The Moulton Niguel Water District (MNWD) provides water to the project site. MNWD relies on imported water from the Municipal Water District of Orange County and local recycled water. Groundwater resources are not significantly utilized. Therefore, development of the proposed project would not substantially deplete groundwater supplies. Furthermore, the site is not a managed aquifer recharge site and site soils have low infiltration rates. Therefore, the proposed development would not adversely impact groundwater recharge.

Since groundwater at the project site was encountered at depths of approximately 14 to 24.5 feet, there is a potential for groundwater seepage during the construction and operational phases of the proposed project, especially since the proposed project includes a partially subterranean garage. Appropriate construction and design-based measures would be addressed in the design-level geotechnical investigation report.

During construction, the contractor would anticipate the potential for groundwater seepage when planning cuts below the existing grades. Measures to collect and discharge water seepage in a suitable manner, such as trench drains, would be required during remedial grading. Groundwater would also need to be accounted for in the installation of deep ground-improvement methods. Discharge of groundwater would be performed by the project contractor in accordance with regulatory requirements.

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For the design of the proposed project, the potential for groundwater seepage would be considered for below-grade structures such as retaining walls and basement walls. Such considerations would include subdrains for below-grade walls and floor slabs, or waterproofing and designing below-grade structures to resist the hydrostatic pressures in addition to the earth pressures.

***Level of Significance Before Mitigation:*** With the implementation of PPP GEO-1, Impact 5.9-2 would be Less Than Significant.

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**Impact 5.9-3: The proposed project would not substantially alter the existing drainage pattern of the site or area, including through the alteration of the course of a stream or river, in a manner that would result in a substantial erosion or siltation on- or off-site. [Thresholds HYD-3 (i) and HYD-3(iii)]**

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Erosion is the movement of rock and soil from place to place and is a natural process. Common agents of erosion include wind and flowing water. Erosion can also be increased greatly by earthmoving construction activities if erosion-control measures are not used. Because the project would disturb more than one acre of land, the developer would be required to prepare and implement a SWPPP under requirements of the General Construction Permit (Order No. 2009-0009-DWQ) issued by the SWRCB. The SWPPP would specify BMPs for reducing or eliminating soil erosion from the site during project construction and operation. Erosion control measures implemented as part of BMPs may include the placement of sandbags around basins; use of proper grading techniques; appropriate sloping, shoring, and bracing of the construction site; using mulch, geotextiles, hydroseeding, swales, and earth dikes; and covering topsoil stockpiles.

Additionally, the project's Preliminary WQMP includes BMPs that would minimize erosion or siltation on- or off-site during the operational phase of the proposed project. These BMPs include minimizing impervious areas (i.e., driveways and walkways); preserving existing drainage patterns by directing flow to the same pre-development off-site discharge locations; disconnecting impervious areas and diverting runoff into self-treating landscaping or proprietary biotreatment BMPs; implementing water-efficient landscaping; protecting slopes to reduce the risk of scouring; and revegetating disturbed areas. An underground detention system is proposed for the site because project runoff discharges to Aliso Creek and Sulfur Creek, neither of which is concrete lined. The detention system is sized per the South Orange County TGD hydromodification requirements to decrease post-development peak flows to less than the pre-development flows for the 2-year up to the 25-year storm frequency events.

Implementation of the WQMP and SWPPP BMPs would ensure the proposed project does not substantially alter the existing drainage pattern of the site in a manner that would result in a substantial erosion or siltation on- or off-site. Impacts would be less than significant.

***Level of Significance Before Mitigation:*** With implementation of PPP HYD-1 through PPP HYD-3 and PPP GEO-1, Impact 5.9-3 would be less than significant.

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**Impact 5.9-4: The proposed project would not substantially increase the rate or amount of surface runoff and result in flooding on- or off-site or create or contribute runoff water that would exceed the capacity of existing or planned stormwater drainage systems. [Thresholds HYD-3 (ii) (iii), and (iv)]**

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As shown on Figure 5.9-3, *Proposed Conditions Hydrology Map*, the existing 60-inch diameter City storm drain would be decommissioned, and a proposed storm drain would be constructed to align within the proposed development's roadways. The storm drain size would remain the same. The new storm drain would be constructed prior to the decommissioning of the existing storm drain, which is proposed to occur after the building demolition phase and during mass grading in the area that precludes the existing storm drain. The existing storm drain would remain operational until the proposed storm drain is constructed and connected to the existing 60-inch City storm drains to the north and south of the site. Once the proposed storm drain is completed and connected, the existing storm drain would be abandoned, demolished, or a combination thereof. The extent of removal and abandonment would be determined prior to construction and based on proximity to proposed structures. This primary proposed storm drain would convey flows originating from development north of the site (draining down Highlands Avenue) through the site to the connection point at Crown Valley Parkway. The flows through this pipe will bypass the development and not contribute any tributary flow.

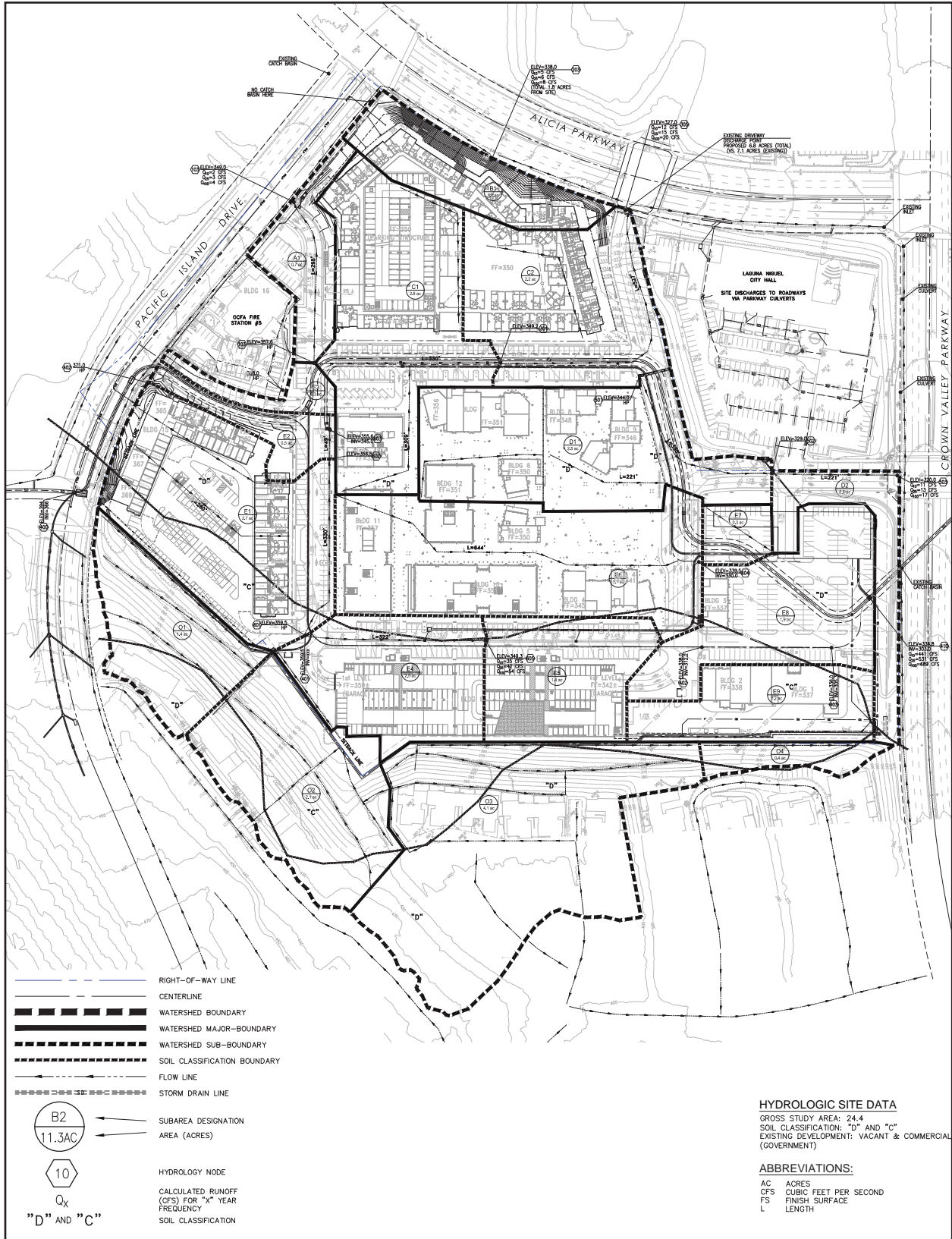
A secondary private storm drain system would be constructed along the project roadways and convey the project flows through a detention system designed for hydromodification. This detention system is proposed under the parking lot of the retail/market area on the south side of the project (where the current library is).

The easterly side of the proposed apartments on the east side of the project would discharge to the existing landscape area above the slope, and flows would then be conveyed via a drainpipe to a parkway culvert. Flows would not be allowed over the top of the slope. The volume and flow rate are anticipated to be less than the existing condition due to a much smaller drainage area. The rest of the easterly proposed apartments would convey flow to the private storm drain system in the project roadway. The proposed apartments in the northwest corner of the site would also convey flows to the private storm drain system. The apartments would have water quality BMPs to treat low flows before entering the private storm drain system.

The retail area adjacent to Crown Valley Parkway on the south side of the project would drain overland through water quality BMPs and convey flows via connection pipes to the detention system under the parking lot of that area.

The preliminary hydrology study indicates that the 50- and 100-year storm events would involve combined street and storm drain flow. The steepness of the site results in fast but shallow flow depths. Consistent with the Orange County Hydrology Manual and the Orange County Local Drainage Manual, on-site storm drains would be sized based on a 25-year storm event for overflow conditions outside the overall building envelope and 100-year frequency for areas within the enclosed proposed apartment courtyards, which are in sump conditions. Local area drains and drainage pipes (landscape applications) will be designed for a 10-year storm event. Events exceeding the 10-year event would flow overland in landscape areas to larger catchment devices. The detention system under the proposed parking lot of the retail/market area would be designed for the 100-year storm event.

Figure 5.9-3 - Proposed Conditions Hydrology Map  
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Source: FUSCOE, 2021

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Prior to the issuance of grading permits, a final hydrology report would be submitted to the City for review and approval. Catch basin, drainage pipe sizing, and final sizing for the detention basin would be calculated in the final hydrology report so that the proposed project does not increase the flow and velocity of runoff in the developed condition compared to the pre-development condition.

In addition, the site is not in a 100-year floodplain or near any surface water bodies that could result in flood flows.

***Level of Significance Before Mitigation:*** With implementation of PPP HYD-1 through PPP HYD-4, Impact 5.9-4 would be Less Than Significant.

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**Impact 5.9-5: The proposed project would not risk release of pollutants due to project inundation in flood hazard, tsunami, or seiche zones. [Threshold HYD-4]**

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According to the Federal Emergency Management Agency, the project site is not within a 100-year flood hazard area (FEMA 2009). Furthermore, the project site is not in the inundation area of a dam or an area designated on a flood insurance rate map as being protected from 100-year floods by levees.

A seiche is a surface wave created when an inland water body is shaken, usually by an earthquake. There are no inland bodies of water near the project site that could pose a seiche hazard to the site.

A tsunami is a series of ocean waves caused by a sudden displacement of the ocean floor, most often due to earthquakes. The project site is approximately 2.3 miles inland from the Pacific Ocean and is outside of the tsunami inundation area mapped by the California Department of Conservation (CDC 2019).

Overall, no hazards would occur due to project inundation in flood hazard, tsunami, or seiche zones.

***Level of Significance Before Mitigation:*** No Impact.

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**Impact 5.9-6: The proposed project would not conflict with or obstruct implementation of a water quality control plan or sustainable groundwater management plan. [Threshold HYD-5]**

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Adherence to the Construction General Permit, implementation of the SWPPP, and adherence to the City's LIP and municipal code requirements, as described in detail in Impact 5.9-1, would ensure that surface and groundwater quality are not adversely affected during construction. In addition, implementation of the LID and BMP measures at the site, including modular wetlands systems, would ensure that water quality is not impacted during the operational phase of the project. As a result, site development will not obstruct or conflict with the implementation of the WQMP for the San Diego Basin.

Furthermore, as discussed in Impact 5.9-2, the City relies on imported water and local recycled water, and no groundwater management plan exists for the region.

Therefore, the project would not obstruct or conflict with the Basin Plan or obstruct sustainable groundwater management.

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*Level of Significance before Mitigation:* With implementation of PPP HYD-1 through PPP HYD-3 and PPP GEO-1, Impact 5.9-6 would be Less Than Significant.

#### 5.9.5 Cumulative Impacts

##### Hydrology and Drainage

The area considered for hydrology and drainage impacts is the Aliso Creek Watershed. Other projects in the Aliso Creek Watershed would increase the amount of impervious surfaces and thus could generate increased runoff. Other projects would also be required to prepare and implement WQMPs specifying BMPs—including LID BMPs—that would minimize runoff from those sites. Therefore, other projects are not expected to cause substantial increases in runoff and are not expected to require construction of substantial new or expanded municipal storm drainage systems. When considering past, present, and foreseeable future projects, the project would not create a cumulative impact, and cumulative impacts would be less than significant. Further, if significant cumulative impacts existed, the project would not make a cumulatively considerable contribution to such significant cumulative impacts because project flows would be less than existing conditions.

##### Water Quality

The area considered for water quality impacts is the part of Orange County in the San Diego RWQCB's jurisdiction, the area subject to the relevant MS4 Permit.

Cumulative projects would prepare and implement WQMPs specifying BMPs that would minimize runoff from those sites and reduce contamination of runoff with pollutants. Other projects disturbing one or more acres of soil would also prepare and implement SWPPPs identifying BMPs for the construction phases of those projects to minimize runoff, erosion, and stormwater pollution. Thus, other projects, when combined with the project and existing development, are not expected to cause substantial increases in stormwater pollution. Cumulative impacts would be less than significant, and project impacts would not be cumulatively considerable.

#### 5.9.6 Level of Significance Before Mitigation

Impact 5.9-5 has no impacts.

Upon implementation of regulatory requirements and standard conditions of approval, Impacts 5.9-1 through 5.9-3 and Impact 5.9-6 would be less than significant.

Without mitigation, Impact 5.9-4 is **potentially significant**.

#### 5.9.7 Mitigation Measures

No mitigation measures are necessary because there were no significant impacts identified under the applicable thresholds.



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### 5.9.8 Level of Significance After Mitigation

All impacts are less than significant.

### 5.9.9 References

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- US Environmental Protection Agency (USEPA). 2012, September 26. Water Permitting 101. <http://www.epa.gov/npdes/pubs/101pape.pdf>.

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### 5.10 LAND USE AND PLANNING

This section of the Draft Environmental Impact Report (DEIR) evaluates the potential impacts to land use in the City of Laguna Niguel (City) from implementation of the Laguna Niguel City Center Mixed Use Project (proposed project).

Land use impacts can be either direct or indirect. Direct impacts are those that result in land use incompatibilities; division of neighborhoods or communities; or interference with other land use plans, including habitat or wildlife conservation plans. This section focuses on direct land use impacts. Indirect impacts are secondary effects resulting from land use policy implementation, such as an increase in demand for public utilities or services, or increased traffic on roadways. Indirect impacts are addressed in other sections of this DEIR.

#### 5.10.1 Environmental Setting

##### 5.10.1.1 REGULATORY BACKGROUND

Regional and local laws, regulations, plans, or guidelines potentially applicable to the proposed project are summarized below.

#### Regional

##### *Southern California Association of Governments*

The Southern California Association of Governments (SCAG) is a council of governments representing Imperial, Los Angeles, Orange, Riverside, San Bernardino, and Ventura counties. SCAG is the federally recognized metropolitan planning organization (MPO) for this region, which encompasses over 38,000 square miles. SCAG is a regional planning agency and a forum for addressing regional issues concerning transportation, the economy, community development, and the environment. SCAG is also the regional clearinghouse for projects requiring environmental documentation under federal and state law. In this role, SCAG reviews proposed development and infrastructure projects to analyze their impacts on regional planning programs.

The proposed project is considered a project of regionwide significance pursuant to the criteria in SCAG's Intergovernmental Review Procedures Handbook (November 1995) and Section 15206 of the California Environmental Quality Act (CEQA) Guidelines, because it requires an amendment to the 1992 Laguna Niguel General Plan, for which an EIR was prepared. Therefore, this section addresses the project's consistency with the applicable regional planning guidelines and policies.

##### *Regional Transportation Plan/Sustainable Communities Strategy*

The 2020-2045 Regional Transportation Plan/Sustainable Communities Strategy (RTP/SCS) was adopted in September 2020 (SCAG 2020). Major themes in the 2020-2045 RTP/SCS include improving mobility, accessibility, reliability, and travel safety for people and goods; striving for sustainability; enhancing the preservation, security, and resilience of existing transportation infrastructure; increasing capacity through improved systems managements; providing more transportation choices; leveraging technology; encouraging

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development of diverse housing types in areas that are supported by multiple transportation options; facilitating regional economic prosperity and global competitiveness; promoting the links between public health, conservation of natural and agricultural lands, and restoration of habitats; and incorporating the principles of social equity and environmental justice into the plan.

The SCS outlines a development pattern for the region, which, when integrated with the transportation network and other transportation measures and policies, would reduce GHG emissions from transportation (excluding goods movement). The SCS is meant to provide growth strategies for land use and transportation that will achieve the regional GHG emissions reduction targets. However, the SCS does not require that local general plans, specific plans, or zoning be consistent with the SCS; instead, it provides incentives to governments and developers for consistency. The proposed project's consistency with the applicable RTP/SCS goals is analyzed in detail in Table 5.7-3, *2020-2045 RTP/SCS Consistency Analysis*.

#### Local

##### *Laguna Niguel General Plan*

The Laguna Niguel General Plan, adopted by the Laguna Niguel City Council on August 4, 1992, provides a source of information and a policy framework for the future; through appropriate goals, policies and programs, it serves as a decision-making tool to guide growth and development.

The General Plan consists of state-mandated and optional elements to direct the City's physical, social, and economic growth. Elements within the Laguna Niguel General Plan include: Land Use, Open Space and Parks, Circulation, Public Facilities, Noise, Seismic/Public Safety, Housing, Growth Management, and Community Service Standards. The Housing Element was prepared in compliance with the 2013-2021 planning cycle for cities within Southern California Association of Governments (SCAG) region. The current Housing Element was adopted on August 20, 2013. The State of California requires that each jurisdiction's housing element be updated every eight years and certified by the State. The City is currently updating its Housing Element for the 2021-2029 period.<sup>1</sup> The policies in each of the elements that are relevant to the proposed project are listed in Table 5.10-2, *General Plan Consistency Analysis*, which analyzes the proposed project's consistency with these policies. Following is a discussion of the various elements.

**Land Use.** The Land Use Element provides guidance regarding the ultimate pattern of development and provides development allocations for land uses throughout the City. It is based on and correlates the policies from all elements into a set of coherent development policies and is the central organizing element of the general plan. Most importantly, the land use element map delineates the locations of existing and future land uses in the City as a framework for future land use planning and decision making. The Land Use Element also separates the City into 14 community profile areas to create a more manageable approach to community

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<sup>1</sup> The City updated the Housing Element for the 2021-2029 planning period. The City's 2021-2029 Housing Element was approved by City Council (Reso 2021-1372) in October 2021. The 2021-2029 Housing Element was forwarded to the California Department of Housing and Community Development (HCD) and is pending certification. The 2021-2029 Housing Element does not include changes that would change the impact analysis conclusions presented in this EIR.

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planning. Each community profile area has a summary of existing and projected buildout statistics for nonresidential square footages and dwelling units. The project site is in Community Profile Area 14.

**Open Space/Parks/Conservation.** The primary objective of the open space/parks/conservation element is to ensure the continued availability of open land, scenic beauty, recreational opportunities, and natural resources. This element also includes goals and policies related to the maintenance and enhancement of cultural and archaeological heritage sites in the City and designated resource areas.

**Circulation.** The purpose of the circulation element is to provide a safe, efficient, and sensible circulation system for the City. Circulation improvements needed to relieve traffic congestion due to future land uses are identified, and corresponding goals and policies ensure that all components of the circulation system will meet the needs of the City.

**Public Facilities.** The public facilities element establishes the planning framework for the provision of public facilities and services necessary to accommodate the existing and future needs of Laguna Niguel. A unique feature of this element is that it addresses service systems that are maintained by the City as well as other entities. As a result, many of the policies are directed at coordination and cooperation between service providers and the City.

**Noise.** The noise element is a tool for including noise control in the planning process to maintain compatible land uses with similar environmental noise levels. It identifies noise-sensitive land uses and noise sources, defines areas of noise impact, and develops policies to ensure that Laguna Niguel residents will be protected from excessive noise intrusion. The major noise sources in the project area are vehicular traffic along Crown Valley Parkway, Alicia Parkway, and Pacific Island Drive.

**Seismic/Public Safety.** The seismic/public safety element establishes goals, policies, and implementation programs to guide and direct local government decision-making in safety-related matters. Through investigation of hazardous risks and subsequent land use planning, the potential for disaster can be reduced. In addition, this element includes policies and actions designed to foster coordination among the various local, state, and federal agencies charged with public safety responsibilities.

**Housing.** Development of housing in Laguna Niguel is guided by the goals, objectives, and policies of the housing element. The 2013–2021 Housing Element is an update and revision of the 2008 element and consists of new technical data, revised goals, updated policies, and a series of programs and implementing measures. The housing element is designed to facilitate attainment of the City’s Regional Housing Needs Allocation and to foster the availability of housing affordable to all income levels to the extent possible, given Laguna Niguel’s constraints. In 2013, the California Department of Housing and Community Development found the 2013–2021 Housing Element consistent with state housing element law.

The City is currently preparing a Housing Element update for the 2021–2029 planning period, which is referred to as the “6th Housing Element cycle” in reference to the six required updates that have occurred since the comprehensive revision to State Housing Element law in 1980. The 6th Cycle Final RHNA Allocation Plan was adopted by SCAG on March 4, 2021 and Updated July 1, 2021. The City has received a final allocation of 1,207 new units for this upcoming planning period.

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**Growth Management.** The growth management element promotes orderly growth and development based on the City's ability to provide an adequate circulation system to serve the land uses established pursuant to the General Plan.

#### *Laguna Niguel Municipal Code*

Title 9 of the Laguna Niguel Municipal Code, "Planning and Zoning," functions as the City's Zoning Code. The zoning code was created to carry out the policies of the Laguna Niguel General Plan; to provide guidance for the development and use of land in the City; to classify different land uses and structures in appropriate places; and to regulate such land uses in order to serve the needs of residential neighborhoods, commerce, industry, recreation, open space and other purposes.

#### 5.10.1.2 EXISTING CONDITIONS

##### **Project Site**

The project site consists of the South County Justice Center (closed in 2008), the Orange County Library, a county maintenance yard, and undeveloped land. The site is immediately adjacent to City Hall and Orange County Fire Station No. 5. It is generally bounded by Pacific Island Drive to the north, Alicia Parkway to the east, Crown Valley Parkway to the south, and multifamily residential communities to the west (e.g., Niguel Summit Apartments, El Niguel Terrace townhomes, and Charter Terrace single-family homes) (see Figures 3-2, *Local Vicinity*, and 3-3, *Aerial Photograph*).

Based on the Laguna Niguel General Plan Land Use Element, the project site is in Community Profile Area 14, which is generally bounded by the intersections of Crown Valley Parkway/Niguel Road, Alicia Parkway/Niguel Road, and Alicia Parkway/Crown Valley Parkway. The area is subdivided into four subprofiles—the Town Center, Crown Valley Center, Town Center Expansion, and Alicia Parkway Center. The project site is in Subprofile C (Town Center Expansion). Table 5.10-1 is reproduced from the City's Land Use Element and details the statistical summary for Community Profile Area 14, as of the original adoption of the General Plan in 1992.

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**Table 5.10-1 Community Profile Area 14 Statistical Summary**

Subprofile Area	Residential (units)			Commercial (square feet)		
	As of 1/1/92	General Plan Projection	Projected Growth	As of 1/1/92	General Plan Projection	Projected Growth
A – Town Center <sup>1,2</sup>	0	0	0	325,010	325,010	0
B – Crown Valley Center <sup>3</sup>	0	0	0	163,610	187,680	24,070
C – Town Center Expansion <sup>4</sup>	0	0	0	46,860	348,480	301,620
D – Alicia Parkway Center <sup>5</sup>	0	0	0	82,230	82,230	0
<b>TOTAL</b>	<b>0</b>	<b>0</b>	<b>0</b>	<b>943,400</b>	<b>641,780</b>	<b>325,690</b>
	<b>Population</b>			<b>Employment</b>		
<b>TOTAL</b>	<b>0</b>	<b>0</b>	<b>0</b>	<b>1,905</b>	<b>2,946</b>	<b>1,041</b>

<sup>1</sup> The Town Center area includes two gas stations with car washes.

<sup>2</sup> The Town Center area includes the Laguna Niguel Presbyterian Church, which is permitted a maximum development of 38,814 square feet. The church is not included in the commercial square footage.

<sup>3</sup> The Crown Valley Center area includes one gas station.

<sup>4</sup> The Town Center Expansion area includes a gas facility to service County vehicles.

<sup>5</sup> The Alicia Parkway Center includes a gas station and a preschool with 130 students.

The project site is also located in the Town Center Area, which was identified in the General Plan’s Land Use Element as an Opportunity area. An Opportunity Area is defined as an area within which further development or intensification is either imminent or desirable and which could benefit from focused policy direction in the General Plan. The 1992 General Plan Land Use Element anticipated redevelopment of The Town Center area, including development of the Laguna Niguel City Hall in this Opportunity Area, when the County’s Justice Center ceased operation. The County’s Justice Center ceased operation in 2008 and the Laguna Niguel City Hall was completed in 2011. The Town Center Area is envisioned as a special focal point of the City.

**Existing and Proposed General Plan and Zoning Designations**

The project site General Plan land use designation is currently “Community Commercial; Professional Office; Public/Institutional.” The portions of the project site that encompasses the Laguna Niguel Branch Library and Orange County Fire Authority (OCFA) Fire Station No. 5 have a land use designation of “Public/Institutional.” The General Plan Amendment proposes to expand the land use designation for the project site (excluding OCFA Fire Station No. 5, existing land use designation to remain) to include “Residential Attached.” Collectively, a land use designation of “Community Commercial; Professional Office; Public/Institutional, and Residential Attached.” The project site is located in Community Profile Area 14 and Sub Profile Area C (“Town Center Expansion” to be retitled “Town Center 3”). The existing and proposed land use designations are shown on Figure 3-6, *Existing and Proposed Land Use Designations*. The proposed General Plan Amendment also amends the description of the Town Center 3 Sub Profile Area by stating:

“Anticipated development of the County-owned property includes up to 159,000 sq. ft. of Community Commercial/Professional Office and a new library (approximately 16,300 square feet

## 5. Environmental Analysis

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in area), which would replace the existing library. Future redevelopment that achieves the projected sub profile area commercial growth may also include development of additive residential dwelling units at a maximum ratio of one (1) unit per 10,000 sq. ft. of commercial development. Bonus additive residential uses up to a total of 275 dwelling units may be developed provided that specific findings are achieved, as described below:

1. The proposed development substantially advances the General Plan's intent, policies, and actions for Town Center;
2. The proposed development results in substantial public benefit, beyond that required for projects not requesting bonus additive residential uses (e.g., community-serving facilities, public outdoor gathering and event spaces, non-project infrastructure improvements, affordable housing, etc.); and
3. The proposed development results in significant improvements over existing site and building conditions by creating exceptionally high-quality mixed-use development in terms of site planning, architecture, circulation, landscaping, pedestrian amenities, land uses, and other design elements.”

Additionally, the proposed General Plan Amendment includes the following policies under Goal 9, which is the “Enhancement of the Town Center.”

- **Policy 9.1.** Allow for the reuse of existing developed properties.
- **Policy 9.2.** Enhance pedestrian circulation through the construction of pedestrian walkways and paths. Projects that feature pedestrian activity through street character, plazas, and other outdoor amenities that enhance Town Center's viability are encouraged.
- **Policy 9.3.** Encourage the development of new land uses that provide both daytime and evening activities. This may include mixed-use developments comprised of a variety of integrated commercial and additive residential uses that have well planned public spaces that bring people together and provide opportunities for interaction and active living featuring a range of shopping, restaurant, service, employment, civic, and entertainment and leisure activities and uses.
- **Policy 9.4.** Ensure high quality urban design in the Town Center area with structures of varying scale and function that are visually distinct and complement the City's identity. Development design should focus on human-scale massing and architecture. A focus is also ensuring the appearance of arterials and surrounding streets are significantly enhanced with street trees and other landscaping to improve the visual and spatial experience of drivers and pedestrians.



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The project site is currently zoned “Community Commercial” (CC) District. The portions of the project site that encompasses the Laguna Niguel Branch Library and OCFA Fire Station No. 5 are zoned “Public/Institution” (PI) District. The CC District is intended for medium- and large-scale commercial areas near arterial highways and serving a greater trade area. Goods and services include retail, office, service, lodging, and entertainment uses. The PI District allows a wide range of public, semipublic, and special-purpose private facilities. To accommodate mixed use development and provide consistency with the proposed General Plan designation, a Zone Change and Zoning Code Amendment are also proposed for the project site. The proposed zoning district is Mixed Use Town Center (MU-TC) (please see Figure 3-6, Existing and Proposed Zoning Districts). This zoning district establishes a mix of permitted uses, including residential, and development standards specific to the MU-TC zone

### Surrounding Land Uses

Surrounding land uses adjacent to the project site include City Hall to the east; OCFA Fire Station No. 5 to the north (within the project site); and Niguel Summit Apartments, El Niguel Terrace townhomes, and Charter Terrace single-family homes to the west. Directly across from Pacific Island Drive, Alicia Parkway, and Crown Valley Parkway are the Pacific Island shopping center, Town Center, and Crown Valley Mall, respectively (see Figure 3-3, *Aerial Photograph*). The property is at the convergence of commercial properties to the south, east, and north, and higher density residential and single-family residential to the west.

### 5.10.2 Thresholds of Significance

According to Appendix G of the CEQA Guidelines and the City’s CEQA Manual, a project would normally have a significant effect on the environment if the project would:

- LU-1        Physically divide an established community.
- LU-2        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.

### 5.10.3 Plans, Programs, and Policies

- PPP LU-1        The proposed project will be designed and constructed in accordance with the applicable provisions of Title 9 (Planning and Zoning) of the Laguna Niguel Municipal Code.

### 5.10.4 Environmental Impacts

#### 5.10.4.1 IMPACT ANALYSIS

The following impact analysis addresses thresholds of significance. The applicable thresholds are identified in brackets after the impact statement.

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#### **Impact 5.10-1: Project implementation would not divide an established community. [Threshold LU-1]**

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The closest established residential communities are the adjacent condominium neighborhoods west of the site. As shown on Figure 3, *Aerial Photograph*, these neighborhoods are physically separated from the project site by a downhill slope covered with vegetation and large trees. The remaining sides of the project boundary are bounded by Pacific Island Drive, Alicia Parkway, and Crown Valley Parkway. Other neighboring uses are restaurant and retail shopping plazas to the north and east. Overall, the proposed project would not divide any established communities.

*Level of Significance Before Mitigation:* No Impact.

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#### **Impact 5.10-2: The project would not conflict with applicable plans adopted for the purpose of avoiding or mitigating an environmental effect. [Threshold LU-2]**

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The proposed project is under the jurisdiction of the City and SCAG and their land use plans and policies. The following analysis will determine the project's consistency with the goals and policies of the City of Laguna Niguel General Plan and SCAG 2020-2045 Regional Transportation Plan/Sustainable Communities Strategies.

### **Laguna Niguel General Plan Consistency**

#### *Proposed Land Use Designations*

The project site General Plan land use designation is currently "Community Commercial; Professional Office; Public/Institutional." The portions of the project site that encompasses the Laguna Niguel Branch Library and Orange County Fire Authority (OCFA) Fire Station No. 5 have a land use designation of "Public/Institutional." The General Plan Amendment proposes to expand the land use designation for the project site (excluding OCFA Fire Station No. 5, existing land use designation to remain) to include "Residential Attached." Collectively, a land use designation of "Community Commercial; Professional Office; Public/Institutional, and Residential Attached." The project site is located in Community Profile Area 14 and Sub Profile Area C ("Town Center Expansion" to be retitled "Town Center 3"). The existing and proposed land use designations are shown on Figure 3-6, *Existing and Proposed Land Use Designations*. As detailed in Table 5.10-1, the Community Profile Area 14 statistical summary identifies 348,480 square feet of total projected commercial square footage for Subprofile Area C and no projected residential units. Subprofile Area C consists exclusively of the courthouse property (to be demolished) and noncommercial public facilities (City Hall, the Orange County Library, and OCFA Station No. 5).

The proposed project consists of 158,581 square feet of commercial development, consisting of restaurant, retail, health/wellness-focused retail and medical office, and creative office space, and 275 multifamily residential units. The civic space consists of a new, approximately 16,290-square-foot County library, which will replace the existing approximately 14,400-square-foot library. With approval of the proposed General Plan Amendment to allow 275 multifamily residential units in Community Profile Area 14, Subprofile Area C (Town Center Expansion) and updating the statistical summary to reflect the buildout of the proposed project's development program, the proposed project would be consistent with the Laguna Niguel General Plan and impacts would be less than significant (see Section 3.8, *Intended Uses of the EIR*).

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### Proposed Zoning Districts

The project site is currently zoned “Community Commercial” (CC) District. The portions of the project site that encompasses the Laguna Niguel Branch Library and OCFA Fire Station No. 5 are zoned “Public/Institution” (PI) District. The CC District is intended for medium- and large-scale commercial areas near arterial highways and serving a greater trade area. Goods and services include retail, office, service, lodging, and entertainment uses. The PI District allows a wide range of public, semipublic, and special-purpose private facilities. To accommodate mixed use development and provide consistency with the proposed General Plan designation, a Zone Change and Zoning Code Amendment are also proposed for the project site. The proposed zoning district is Mixed Use Town Center (MU-TC) (please see Figure 3-6, *Existing and Proposed Zoning Districts*). This zoning district establishes a mix of permitted uses, including residential, and development standards specific to the MU-TC zone, which allows for a mix of commercial uses and permits additive residential dwelling units at a maximum ratio of one (1) unit per 10,000 sq. ft. of commercial development, or up to a total of 275 dwelling units if specific findings are achieved. Therefore, provided the decision-making body makes the specific findings included in the MU-TC zone, the project would be consistent with the MU-TC zone and impacts would be less than significant.

### General Plan Goals and Policies

The Laguna Niguel General Plan’s stated goals are intended to establish a broad vision of a desired condition the City wants to achieve, and its policies set a course of action to achieve the overall goal. A review of the proposed project’s consistency with the applicable goals and policies of the various elements of the General Plan is provided in Table 5.10-2, *General Plan Consistency Analysis*.

**Table 5.10-2 General Plan Consistency Analysis**

Applicable City of Laguna Niguel General Plan Goals and Policies	Project Consistency
<b>Land Use Element</b>	
<b>GOAL LU1 A well-balanced mixture of land uses that meet the residential, commercial, open space and public service needs of residents.</b>	
<b>Policy 1.1.</b> Encourage the development of land uses that contribute to the goal of a well-balanced community.	<b>Consistent:</b> The proposed project would provide a mixed-use development with residential, commercial, civic services, office uses, and open space within a walkable community. The proposed project would also provide common areas, landscaping, and performance spaces for community events/performances, shows, private events, etc. The mix of uses and common areas would benefit the City and contribute to its goal of a well-balanced community.
<b>GOAL LU2 A sufficient amount of commercial and industrial uses which provide jobs and revenue to the City without compromising environmental quality.</b>	
<b>Policy 2.1.</b> Allow a wide range of uses in the City that will be beneficial in terms of employment and revenue generation, but without undue impacts on public services and facilities.	<b>Consistent:</b> The project would include nonresidential uses, featuring retail, restaurants, and offices, event/performance space and civic services. These would provide long-term employment and generate revenue in the City. And, as concluded in Sections 5.13, <i>Public Services</i> , and 5.14, <i>Recreation</i> , the proposed project would not adversely impact public services (i.e., fire, police, library, school, and park services).
<b>Policy 2.2.</b> Enhance the quality and competitive advantage of commercial centers and business parks within the City.	<b>Consistent:</b> The proposed project would develop a new commercial center in the city center of Laguna Niguel and provide a wide range of uses that would generate employment and revenue. The residential and nonresidential uses centered around a walkable and integrated environment would enhance the quality and competitive edge

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**Table 5.10-2 General Plan Consistency Analysis**

Applicable City of Laguna Niguel General Plan Goals and Policies	Project Consistency
	of the proposed project compared to other commercial centers because it provides a pedestrian-oriented area for living, shopping, and working. Further, the proposed common areas and performance space could be used for different kinds of events—farmer’s markets, yoga, movie screenings, performance, etc. that enhance the quality of the City.
<b>GOAL LU3 Compatible relationships between land uses in the community.</b>	
<b>Policy 3.1.</b> Ensure that effective buffers between residential and non-residential uses are established and maintained.	<p><b>Consistent:</b> While the proposed project integrates residential and nonresidential uses on one project site, the proposed residential uses and nonresidential uses are in separate buildings. The proposed project includes two residential buildings: (1) a 200-unit, three- to four-story residential core near the intersection of Alicia Parkway and Pacific Island Drive and (2) a 75-unit, two- to four-story residential development near the intersection of Pacific Island Drive and Highland Avenue. The nonresidential uses include office, restaurant, commercial, and civic space and are in the center and south sides of the project site.</p> <p>The residential and nonresidential uses are further separated by on-site roadways, landscaping, and on-street parking that create a buffer between the residential uses and the nonresidential use on-site and off-site, including the existing Fire Station No. 5 and City Hall. Existing residential uses are to the north, west, and south of the project site. On-site uses would be separated from existing residential uses to the west by setbacks and landscaping. On-site uses would be separated from existing residential uses to the north and south by setbacks, landscaping, and existing roadways (Pacific Island Drive and Crown Valley Parkway).</p>
<b>Policy 3.3.</b> Reduce land use conflicts between residential and non-residential uses.	<b>Consistent:</b> The separation of land uses, as described under the response for Policy 3.1 under Goal LU3, would reduce land use conflicts between residential and nonresidential uses.
<b>Policy 3.4.</b> Ensure that residential densities are compatible with the surrounding land uses and buildings are in scale with the neighborhood character.	<p><b>Consistent:</b> The project site is largely undeveloped, and the proposed project would not be placing new residential buildings in an existing, established community. The proposed project would develop a mixed-use community adjacent to existing residential, commercial, and civic/public uses.</p> <p>The proposed project would develop 275 residential units in two buildings on the northern and northwestern portions of the project site. The 200-unit residential building near the intersection of Alicia Parkway and Pacific Island Drive would consist of a three- and four-story residential building wrapped around a parking structure. The 75-unit residential building consists of two three and four story buildings surrounding a surface parking lot.</p> <p>The proposed project’s residential component would be located near two existing residential communities to the north and west of the project site, the Niguel Summit Apartment Homes (to the west) and the Pointe Niguel Apartment Homes (to the north). These existing communities have apartment buildings that range in height from two to three stories. The proposed project’s lower-density residential component would be directly adjacent to and across the street from these existing communities. The proposed project’s residential buildings and density would be compatible with the adjacent neighborhoods.</p>
<b>GOAL LU4 Urban design that provides community gathering areas and other pedestrian spaces.</b>	
<b>Policy 4.1.</b> Emphasize attractive and functional urban design in new development.	<b>Consistent:</b> The proposed project would be designed in an attractive and functional manner to encourage people to use the common open space areas, pedestrian-oriented courtyards, and promenade and to visit the shops, kiosks, and restaurants. The proposed project provides a walkable environment that allows residents and

## 5. Environmental Analysis LAND USE AND PLANNING

**Table 5.10-2 General Plan Consistency Analysis**

Applicable City of Laguna Niguel General Plan Goals and Policies	Project Consistency
	visitors to visit multiple places and uses. The proposed project would incorporate an attractive landscape palette and architectural design and materials.
<b>Policy 4.3.</b> Require, where feasible, the development of open spaces and places for people to gather within commercial and office complexes.	<b>Consistent:</b> The proposed project includes the development of 174,871 square feet of office and commercial space, including a new library. In addition, the retail village component of the proposed project would include a town green area, which would be improved with mature trees, water features, soft seating areas, outdoor performance/event spaces, and other programmable space for open air farmers markets, art shows, live music, food and wine festivals, yoga in the park, outdoor movie nights, etc. The proposed project includes walking paths and landscaping throughout the site. The open spaces on-site would support the proposed retail, commercial, civic, and residential uses.
<b>Policy 4.4.</b> Provide, where feasible, pedestrian walkways and linkages between residential, commercial, office, open space/recreation facilities and other public places.	<b>Consistent:</b> The proposed project residential and nonresidential uses, including office, retail, restaurant, open space, and civic uses, that would be connected by pedestrian walkways with landscaping, including a pedestrian promenade and paseos that would guide residents and visitors to a commercial core. Residents in the proposed buildings on-site and in the surrounding areas would be able to access the on-site open space and commercial and public facilities without using an automobile.
<b>GOAL LU5 Preservation and enhancement of the natural setting of the City.</b>	
<b>Policy 5.2.</b> Ensure that adequate recreational and open space areas are provided.	<b>Consistent:</b> The City's local park code, in Section 9-1-522 of the Laguna Niguel Municipal Code, specifies parkland requirements for all development projects pursuant to the Quimby Act. The project would provide extensive landscaping and common gathering areas throughout the project site, and the project applicant would be required to pay in-lieu park fees for the project's fair share impact on existing parks and recreational facilities per the Municipal Code.  Proposed Zoning Code Amendment ZCA 19-01 includes modifying Laguna Niguel Zoning Code Section 9-1-45.3 to 5.10-11 to include a common open area and active/passive recreation requirement for the new MU-TC District. The proposed project would comply with the amended Section 9-1-45.3 and provide required common open area and active/passive recreation space.
<b>GOAL LU6 Enhanced community identity for residents, visitors and commuters.</b>	
<b>Policy 6.1.</b> Provide for the development of pedestrian gathering areas to promote social interaction.	<b>Consistent:</b> The proposed project supports this policy by developing a pedestrian-oriented development with gathering spaces. The proposed project incorporates a variety of uses, including residential, retail, restaurant, office, and civic/public uses connected by landscaped pedestrian walkways, paseos, open space, and communal seating areas, which encourages walking between uses. Additionally, the proposed project includes a grand plaza/town green at the main entrance to the retail village core. The town green will be improved with mature trees, water features, seating areas, outdoor performance/event spaces, and other programmable space for open air farmers markets, art shows, live music, festivals, yoga, outdoor movie nights, etc. The proposed project would also replace the approximately 14,400-square-foot public library with an approximately 16,290-square-foot public library on-site and place it in the center of the site in the retail village core. The library would include over 13,000 square feet of usable/programmable public space and approximately 2,600 of outdoor programmable space.
<b>GOAL LU9 Enhancement of the town center (note that proposed policy changes for this goal as proposed in the General Plan Amendment for this project are shown in bold and <del>strikeout text</del>)</b>	
<b>Policy 9.1</b> Allow for the reuse of existing developed properties.	<b>Consistent.</b> The proposed project constitutes reuse of the property that has been previously disturbed and partially developed.

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**Table 5.10-2 General Plan Consistency Analysis**

Applicable City of Laguna Niguel General Plan Goals and Policies	Project Consistency
<p><b>Policy 9.2.</b> Enhance pedestrian circulation through the construction of pedestrian walkways and paths. <b>Projects that feature pedestrian activity through street character, plazas, and other outdoor amenities that enhance Town Center's viability are encouraged.</b></p>	<p><b>Consistent:</b> See response to Policy 4.4 under Goal LU4 and Policy 6.1 under Goal LU6. The project site is in the center of the city and would help transform it into a community center for residents and visitors of Laguna Niguel. The project is designed with pedestrian walkways within the development area, including plazas and paseos that lead to outdoor open space and recreation areas. Furthermore, pedestrian connections are planned to surrounding communities and the landscaping and architectural massing have been designed to enhance the pedestrian experience.</p>
<p>Encourage the development of new land uses that provide both daytime and evening activities. <b>This may include mixed-use developments comprised of a variety of integrated commercial and additive residential uses that have well planned public spaces that bring people together and provide opportunities for interaction and active living featuring a range of shopping, restaurant, service, employment, civic, and entertainment and leisure activities and uses.</b></p>	<p><b>Consistent:</b> The proposed project would provide daytime and evening activities. The mix of uses for the proposed project would include restaurants, specialty retail shops and markets, office space, kiosks, and a performance/event space that would attract day and evening visitors. Further, the proposed project would provide areas for offices, restaurants, arts and education, and health and wellness space, which would attract daytime visitors.</p>
<p><b>Policy 9.4.</b> Ensure high quality urban design in the Town Center area with structures of varying scale and function that are visually distinct and complement the City's identity. Development design should focus on human-scale massing and architecture. A focus is also ensuring the appearance of arterials and surrounding streets are significantly enhanced with street trees and other landscaping to improve the visual and spatial experience of drivers and pedestrians.</p>	<p><b>Consistent:</b> See response to Policy 4.1 under Goal LU4.</p>
<p><b>Open Space/Parks/Conservation Element</b></p>	
<p><b>GOAL OS5 Conservation of natural resource areas of community and regional significance.</b></p>	
<p><b>Policy 5.1.</b> Conserve sensitive species and plant communities and wildlife habitats to the maximum extent feasible through open space dedication and easements, creative site design and other workable mitigation actions.</p>	<p><b>Consistent:</b> According to Section 5.3, <i>Biological Resources</i>, one sensitive wildlife species (the Cooper's hawk) was identified on-site during the August 2019 site visit. No other sensitive wildlife or plants were identified on-site. As discussed in Section 5.3, with implementation of Mitigation Measures BIO-1 and BIO-2, the proposed project's impact to nesting birds and the Cooper's hawk would be less than significant. All sensitive plant and wildlife species identified in the California Natural Diversity Database as occurring within two miles of the site are considered to have very low potential to occur on-site due to lack of suitable habitat. Therefore, with incorporation of Mitigation Measure BIO-1, development of the proposed project would not adversely impact sensitive habitat, plant communities, or wildlife species.</p>
<p><b>GOAL OS7 Recognize significant cultural sites or features within the community.</b></p>	
<p><b>Policy 7.1.</b> Review the technical data on sensitive cultural resources for all new development proposals.</p>	<p><b>Consistent:</b> A records search was conducted by Cogstone to determine whether the proposed project would impact any cultural resources on-site. This included searching archaeological and historical records at the South Central Coast Information Center, California State University, Fullerton, and searching paleontological records at the Natural History Museum of Los Angeles County. Archaeological resources were</p>

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**Table 5.10-2 General Plan Consistency Analysis**

Applicable City of Laguna Niguel General Plan Goals and Policies	Project Consistency
	<p>previously recorded within the project site but either no longer exist or are completely covered by hardscape improvements. No paleontological resources were discovered.</p> <p>However, grading activities associated with the proposed project could uncover previously undiscovered resources. Therefore, mitigation is provided to ensure proper procedures are followed if cultural resources are found. Mitigation Measures CUL-1 requires stopping work if buried cultural resources are found and having a qualified archaeologist assess the significance of the find and develop appropriate treatment measures. Mitigation Measure GEO-1 requires a qualified paleontological monitor to monitor excavation activity and be equipped to salvage fossils or sediment samples that are identified as significant. A paleontological resources findings report shall also be prepared.</p>
<p><b>Policy 7.2.</b> Require mitigation of impacts to significant areas of archaeological and paleontological resources.</p>	<p><b>Consistent:</b> See response to Policy 7.1 under Goal OS7.</p>
<p><b>Policy 7.3.</b> Preserve uncovered resources in their natural state, as much as feasible to assure their preservation and availability for later study. Require that uncovered resources are documented and retained in an appropriate museum or other institution.</p>	<p><b>Consistent:</b> See response to Policy 7.2 under Goal OS7.</p>
<p><b>GOAL OS10 Effective utilization and management of water resources.</b></p>	
<p><b>Policy 10.1.</b> Require appropriate water conservation and mitigation measures on all development projects.</p>	<p><b>Consistent:</b> A water supply assessment was prepared for the proposed project to determine whether MNWD has adequate water supplies to support the proposed development in addition to all other existing and planned developments in its service area. As concluded in Section 5.17, <i>Utilities and Service Systems</i>, buildout of the project is estimated to generate a water demand of 97,025 gallons per day. MNWD forecasts that it will have sufficient water supplies to satisfy the demands of the project as well as existing and planned future uses.</p> <p>Additionally, the project would implement landscaping with drought-tolerate and native ornamental trees, shrubs, gardens, and lawns. The proposed water features on-site would use recycled water and comply with the City's Water Efficient Landscape Ordinance.</p>
<p><b>Circulation Element</b></p>	
<p><b>GOAL C1 An adequate transportation/circulation system that supports regional and local land uses at adopted level of service (LOS) standards and complies with requirements of the Countywide Traffic Improvement and Growth Management Program (Measure M) (Growth Management Element [GME] Goal 1).</b></p>	
<p><b>Policy 1.2.</b> Make all feasible transportation improvements in order to meet a target level of service (LOS) standard of "C" and a threshold standard of LOS "D". The City recognizes that not all intersections within the City can meet this target LOS. Therefore, the City will establish a critical intersection list which consists of intersections which do not meet the target WS of "C", at peak periods only, but do not exceed the City's threshold LOS standard of II "D". In order for an intersection to be placed on the City's critical intersection list, the City Council must find that the improvements necessary to meet target LOS "C" are not feasible because of one or more of the following reasons: 1)</p>	<p><b>Consistent:</b> Although automobile delay and Level of Service (LOS) impacts are no longer considered significant impacts under CEQA, project consistency with the City's General Plan, including this policy, is required. A traffic impact analysis (TIA) was prepared by Linscott, Law &amp; Greenspan to determine transportation impacts of the proposed project on existing roadways. As concluded in the TIA, Appendix L, project-generated traffic, in conjunction with other cumulative projects, would not exceed the General Plan's LOS standards for area intersections.</p> <p>The proposed project would also be required to implement several site access improvements, including installing traffic signals at one intersection and modifying existing inbound/outbound lanes to ensure acceptable LOS.</p>

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**Table 5.10-2 General Plan Consistency Analysis**

Applicable City of Laguna Niguel General Plan Goals and Policies	Project Consistency
the cost of the necessary improvements exceeds available funding sources; 2) the design of the necessary improvements is not compatible with the surrounding land uses; or 3) the design of the necessary improvements is contrary to other established City policies (GME Policy 1.1).	
<b>Policy 1.3.</b> Make all feasible transportation improvements in order to meet the threshold level of service unless the City determines that the unacceptable level of service is a direct result of regional traffic and that the improvements necessary to achieve the threshold level of service: 1) exceed the available funding sources; 2) are not compatible with the surrounding land uses; or 3) the design of the improvements is contrary to other established City policies (GME Policy 1.2).	<b>Consistent:</b> See response to Policy 1.2 under Goal C1.
<b>Policy 1.6.</b> Measure traffic LOS using the current guidance regarding traffic level of service policy implementation established by the Local Transportation Authority (GME Policy 1.5).	<b>Consistent:</b> The TIA prepared by Linscott, Law & Greenspan was prepared in accordance with the City of Laguna Niguel Draft Transportation Assessment Guidelines dated November 2020, and the methodology in Chapters 20 and 21 of the <i>Highway Capacity Manual (HCM 6)</i> was applied in the analysis of the unsignalized intersections.
<b>Policy 1.7.</b> Require necessary conditions of approval on development projects to achieve traffic LOS standards prescribed in this Element (GME Policy 2.1).	<b>Consistent:</b> See response to Policy 1.2 under Goal C1.
<b>Policy 1.8.</b> All new development shall be required to participate in the City's transportation fee program(s). These fee programs shall be designed to ensure that all development projects fund their pro rata share of the necessary long-term transportation improvements identified in this Element or its Technical Appendix.  As part of the City's transportation fee program(s), criteria will be developed to establish funding priorities. This program will also establish phasing guidelines to be consistent with the Comprehensive Phasing Plan (GME Policy 2.2).	<b>Consistent:</b> See response to Policies 1.2 and 1.6 under Goal C1.
<b>Policy 1.9.</b> All development projects contributing one percent or more to the critical movement at an intersection that is either projected to operate, or currently operates below the target level of service as a result of project implementation, shall fund all required feasible transportation improvements necessary to achieve the target LOS or, if the intersection exceeds the target LOS prior to project approval, mitigate the impacts of the project so that the intersection ICU is returned to its level of operation prior to project approval. Even for intersections where the target LOS is "D", in the interim, prior to buildout, the City may require mitigation to maintain a LOS of "C".	<b>Consistent:</b> See response to Policies 1.2 and 1.6 under Goal C1.



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**Table 5.10-2 General Plan Consistency Analysis**

Applicable City of Laguna Niguel General Plan Goals and Policies	Project Consistency
<p>Necessary feasible improvements to mitigate an intersection to its level of operation prior to project approval shall be targeted for completion prior to issuance of Certificates of Use and Occupancy for the approved project. If the City determines that the cost of the improvement(s) is not feasible, the City shall require that any feasible short-term improvements be made prior to Certificates of Use and Occupancy and all permanent transportation improvements made within three years of the issuance of the first building permit, or within five years of the first grading permit.</p> <p>Any project which has complied with this policy by funding a specific transportation improvement project, which is included in the City's transportation fee program, shall be given credit for the fees required as part of the transportation fee program as established in Policy 1.8 (GME Policy 2.3).</p>	
<p><b>GOAL C3 A circulation system that maximizes efficiency through the use of transportation system management and demand management strategies.</b></p>	
<p><b>Policy 3.1.</b> Encourage new development which facilitates transit services, provides for non-automobile circulation and minimizes vehicle miles traveled.</p>	<p><b>Consistent:</b> It is the intent of the proposed project that future residents and visitors of the project area would park and visit a number of offices, retail, and/or restaurants before leaving the area. The mix of uses would minimize vehicle miles traveled compared to a single-use development and would also attract different types of users, including residents and guests, shoppers, workers, artists, diners, etc.</p>
<p><b>GOAL C7 Well-designed and convenient parking facilities.</b></p>	
<p><b>Policy 7.1.</b> Provide sufficient on- and off-street parking.</p>	<p><b>Consistent:</b> Parking is not under the purview of CEQA and will be evaluated under separate project-specific entitlement(s) by the City of Laguna Niguel Community Development Department. As shown on Figure 3-4, <i>Proposed Site Plan</i>, parking for the commercial uses would be provided in a combination of surface parking spaces adjacent to the commercial uses and within two- and three-story (i.e., three and four level) parking structures on the west side of the property. The number of parking spaces provided would exceed the City's code, with a total parking count of 1,066 surface and garage spaces to serve both the commercial uses and the library needs. Residential building 1 (200 units) would provide a minimum of 406 parking spaces for residents and guests which is consistent with the City's minimum parking code standard. All stalls would be located in a subterranean and above grade garage internal to the building.</p> <p>Residential building 2 (75 units) would provide a minimum of 157 parking spaces for residents and guests which is consistent with the City's minimum parking code standard. Resident parking would be located on the Residential building 2 parcel and consist of 20 tuck-under private garages directly connected to units, 15 tuck-under private garages not connected to units, 59 open surface stalls, and 40 surface stalls with carports for a total of 134 stalls. A total of 23 guest stalls would be located in the adjacent parking structure.</p>
<p><b>Policy 7.4.</b> Encourage the use of shared parking facilities among different land uses, by means of parking districts or other mechanisms.</p>	<p><b>Consistent:</b> See response to Policy 7.1 under Goal C7.</p>

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**Table 5.10-2 General Plan Consistency Analysis**

Applicable City of Laguna Niguel General Plan Goals and Policies	Project Consistency
<b>Public Facilities Element</b>	
<b>GOAL PF1 A water and wastewater infrastructure system that supports existing and future development in the City of Laguna Niguel.</b>	
<b>Policy 1.1.</b> Encourage water conservation practices.	<b>Consistent:</b> See response to Policy 10.1 under Goal OS10.
<b>Policy 1.2.</b> Cooperate with Moulton Niguel Water District in analyzing capacity and supply requirements.	<b>Consistent:</b> See response to Policy 10.1 under Goal OS10.
<b>GOAL PF2 An effective and efficient drainage and flood control system.</b>	
<b>Policy 2.4.</b> Drainage facilities shall be sized to accommodate projected flows and to minimize potential impacts on downstream areas.	<b>Consistent:</b> As detailed in Section 5.9, <i>Hydrology and Water Quality</i> , the existing 60-inch diameter storm drain that runs through the site would be demolished, abandoned, or a combination of the two, as determined prior to construction. A new drainage route alignment for a 60-inch diameter storm drain would be constructed off-site in Pacific Island Drive that continues through the project site beneath the proposed interior roadways and reconnected to the existing storm drain on-site and near Crown Valley Parkway. In order to achieve predevelopment runoff conditions, on-site drainage improvements to help reduce stormwater runoff volumes would include catch basins, drain inlets, gutters, storm drain drainpipes, and bio-treatment modular wetlands that connect to a private storm drain system leading to the proposed hydromodification detention vault(s). The detention vault would discharge to the public storm drain system.
<b>GOAL PF4 A community that is protected from the hazards of fire.</b>	
<b>Policy 4.1.</b> Cooperate with the County of Orange to ensure that adequate facilities and fire service personnel are maintained to provide acceptable levels of service.	<b>Consistent:</b> In Section 5.13, <i>Public Services</i> , the OCFA stated that there are no existing deficiencies in the level of fire protection service, and development of the project would not have an adverse impact on OCFA's ability to serve the project area. All developments in the City are required to enter into a Secured Fire Protection Agreement with OCFA, which requires project developers to pay development impact fees. Funds from the agreement are used to improve and enhance OCFA's infrastructure and resources to maintain adequate levels of service.
<b>Policy 4.2.</b> Require all buildings located within the City to adhere to fire safety codes.	<b>Consistent:</b> Per Section 11-3-1 of Laguna Niguel's Municipal Code, the City has adopted the 2019 California Fire Code (CFC) and requires all new developments adhere to the fire safety regulations in the 2019 CFC.
<b>GOAL PF5 A community that is well protected from criminal activity and achieves reduced crime rates.</b>	
<b>Policy 5.1.</b> Assure that adequate sheriff service is available in the City.	<b>Consistent:</b> As concluded in Section 5.13, <i>Public Services</i> , the Orange County Sheriff's Department's (OCSD) existing resources are adequately serving the City, and there are no service deficiencies. The project site is directly adjacent to the Laguna Niguel Police Station; therefore police officers would be able to quickly respond to calls for service from the project site.
<b>GOAL PF6 A range of community services and cultural facilities that meet the needs of Laguna Niguel residents and enhance their quality of life.</b>	
<b>Policy 6.2.</b> Cooperate with the County of Orange to provide for library facilities and services that are consistent with community needs.	<b>Consistent:</b> The Laguna Niguel Public Library (an Orange County Public Library) is on the project site. The proposed project would replace the approximately 14,400-square-foot library with a new, 16,290-square-foot upgraded library in the central portion of the project site. Additionally, approximately 2,600 square feet of outdoor space will be programmable for the library. The proposed redeveloped library would adequately serve the community. Future residents of the proposed project would also have access to all 33 libraries in the Orange County Public Library (OCPL) system. Therefore, OCPL would be able to accommodate the project's increase in library demand.

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LAND USE AND PLANNING

**Table 5.10-2 General Plan Consistency Analysis**

Applicable City of Laguna Niguel General Plan Goals and Policies	Project Consistency
<b>GOAL PF7 A quality school system with adequate facilities and funding to educate the youth of Laguna Niguel.</b>	
<b>Policy 7.1.</b> Work with the Capistrano Unified School District to ensure adequate educational facilities are provided and maintained.	<b>Consistent:</b> Project impacts on Capistrano Unified School District (CUSD) services are analyzed in Section 5.13, <i>Public Services</i> . The project would generate approximately 75 additional students who would impact the school enrollment capacities at Moulton Elementary School, Niguel Hills Middle School, and Dana Hills High School. There is adequate student capacity and facilities to accommodate the additional students, and impacts would be less than significant. Further, the project would pay school facility impact fees in accordance with Senate Bill 50.
<b>Noise Element</b>	
<b>GOAL N1 Establishment of exterior and interior noise environments for land uses that will protect citizens from excessive noise.</b>	
<b>Policy 1.1.</b> Discourage noise sensitive land uses in noisy exterior environments unless measures can be implemented to reduce exterior and interior noise to acceptable levels. Alternatively, encourage less sensitive uses in areas adjacent to major noise generators but require appropriate interior working environments.	<b>Consistent:</b> Noise-sensitive land uses proposed in the project include the 275 residential units, which are at the north and northwestern sides of the project site. Existing and proposed noise sources are typical of suburban environments, such as traffic and commercial uses. Mitigation measures outlined in Section 5.11, <i>Noise</i> , would be implemented to reduce project noise levels. As shown in Section 5.11, operational noise would be less than significant with the incorporation of mitigation measure N-1.
<b>GOAL N3 Promote the control of noise between land uses.</b>	
<b>Policy 3.1.</b> Limit the maximum permitted noise levels which cross property lines and impact adjacent land uses.	<b>Consistent:</b> The City regulates noise through Division 6 of Title 6 of the Laguna Niguel Municipal Code. Section 6-6-5, Exterior Noise Standards, of the municipal code limits the exterior noise levels at residential properties to 55 dBA between 7 am and 10 pm and to 50 dBA from 10 pm to 7 am. In addition to the exterior noise standards, the noise ordinance limits the interior noise levels at residential properties to 55 dBA between 7 am and 10 pm and to 45 dBA from 10 pm to 7 am.  As analyzed in Section 5.11, construction and operation of the proposed project would result in a less than significant impact to noise with the incorporation of Mitigation Measures N-1 and N-2.
<b>GOAL N4 The control of noise from significant noise generators in the community.</b>	
<b>Policy 4.1.</b> Regulate noise from construction activities.	<b>Consistent:</b> Section 6-6-5, Exterior Noise Standards, of the Laguna Niguel Municipal Code limits the exterior noise levels at residential properties to 55 dBA between 7 am and 10 pm and to 50 dBA from 10 pm to 7 am. The section also includes noise standards and thresholds to determine significance of noise impacts.  As detailed in Section 5.11, with the incorporation of Mitigation Measure N-2, the project's construction noise would be less than significant. Additionally, construction equipment operates intermittently at varying power settings and at different areas of the project site. Therefore, construction noise would be both intermittent and temporary. Moreover, some sensitive residential receptors nearby are already exposed to relatively high ambient noise levels due to nearby traffic and commercial sources. As analyzed in Section 5.11, construction-related noise impacts would be less than significant.
<b>GOAL N5 The consideration of noise issues in the planning process.</b>	
<b>Policy 5.1.</b> Evaluate potential noise conflicts for individual sites and projects.	<b>Consistent:</b> Section 5.11, <i>Noise</i> , analyzes potential construction and operational noise impacts of the proposed project on adjacent sensitive uses. With the incorporation of Mitigation Measures N-1 and N-2, the proposed project would result in a less than significant impact with regard to noise. Thus, the project would not have noise conflicts with adjacent uses.

## 5. Environmental Analysis LAND USE AND PLANNING

**Table 5.10-2 General Plan Consistency Analysis**

Applicable City of Laguna Niguel General Plan Goals and Policies	Project Consistency
<b>Policy 5.2.</b> Require mitigation of all significant noise impacts as a condition of project approval.	<b>Consistent:</b> As concluded in Section 5.11, <i>Noise</i> , the proposed project would not result in significant noise impacts and would not require mitigation. Without mitigation, potential special event could result in significant impacts to the closest residences surrounding the project site. With mitigation, however, this impact would be less than significant. The proposed project would result in a less than significant impact relating to ground-borne vibration prior to mitigation. The project site is also not within two miles of an airport or airstrip.
<b>Seismic/Public Safety Element</b>	
<i>Seismic/Public Safety Element policies applicable to the proposed project have already been addressed under the Public Facilities Element.</i>	
<b>Housing Element</b>	
<b>GOAL H1</b> Provide a diversity of housing opportunities that satisfy the physical, social, and economic needs of existing and future residents of Laguna Niguel.	
<b>Policy 1.3.</b> Promote a variety of housing opportunities that accommodate the needs of all income levels of the population.	<b>Consistent:</b> The proposed project includes residential apartment units with primarily flats and a smaller percentage of two-story units configured into one, two and three bedroom apartments. The proposed project would add 275 residential units to the housing stock in the City of Laguna Niguel, which increases the variety of housing opportunities. The mix of unit types would allow the proposed project to accommodate a greater range of income levels and household sizes.
<b>Growth Management Element</b>	
<i>Applicable Growth Management Element policies are referenced and analyzed under the Circulation Element.</i>	

### SCAG 2020-2045 RTP/SCS Consistency

Table 5.10-3 provides an assessment of the proposed project’s relationship to pertinent 2020-2045 SCAG RTP/SCS goals.

**Table 5.10-3 SCAG 2020-2045 RTP/SCS Goals Consistency Analysis**

RTP/SCS Goal	Project Compliance with Goal
<b>RTP/SCS G1:</b> Encourage regional economic prosperity and global competitiveness	<b>Consistent:</b> The proposed project would develop a new, mixed-use center with commercial uses and residential units in the center of Laguna Niguel and provide a wide range of uses that would generate housing opportunities, employment and revenue. The mix of uses would improve the City’s economic development and competitiveness compared to other commercial centers in southern Orange County. The project would provide a pedestrian-oriented area for living, shopping, and working. Further, the proposed common areas and performance space could be used for multiple event types—concerts in the park, shows, yoga, movie screenings, etc. Overall, the project would bolster the city’s economic competitiveness.
<b>RTP/SCS G2:</b> Improve mobility, accessibility, reliability, and travel safety for people and goods.	<b>Consistent:</b> The project site would be located near regional transportation systems including Interstate 5 freeway and the Orange County Transportation Authority bus stop at the corner of Alicia Parkway and Pacific Island Drive. The Laguna Niguel / Mission Viejo Metrolink station is on Forbes Road just south of Crown Valley Parkway. The station is about three miles northeast of the project site and can be accessed by using OCTA Route 85 from the bus stop at the Crown Valley Parkway and Alicia Parkway intersection to the bus stop at the Crown Valley Parkway and Forbes Road intersection, followed by a half-mile walk to the Metrolink station. Each of the roadways surrounding the project site (Pacific Island Drive, Crown Valley Parkway, and Alicia Parkway) is configured with Class II bike lanes. Class II is

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**Table 5.10-3 SCAG 2020-2045 RTP/SCS Goals Consistency Analysis**

RTP/SCS Goal	Project Compliance with Goal
	<p>defined as a restricted lane within the right-of-way of a paved roadway for the exclusive or semi-exclusive use of bicycles. Each of these roadways is also fully improved with sidewalks and has marked crosswalks and pedestrian signals at each of the signalized intersections.</p> <p>These features would provide safe and reliable accessibility and mobility for people and goods to and within the project site.</p>
<p><b>RTP/SCS G3:</b> Enhance the preservation, security, and resilience of the regional transportation system</p>	<p><b>Not Applicable:</b> The proposed project is not a transportation project and would not have a direct impact on the preservation and sustainability of the regional transportation system. As concluded in the TIA prepared by Linscott, Law &amp; Greenspan, the proposed project is not forecast to significantly impact the intersections in the traffic analysis study area for either weekday or weekend peak conditions. The project is located in an area with easy accessibility to transit, which promotes the success of transit.</p>
<p><b>RTP/SCS G4:</b> Increase person and goods movement and travel choices within the transportation system.</p>	<p><b>Consistent:</b> See response to RTP/SCS G5.</p>
<p><b>RTP/SCS G5:</b> Reduce greenhouse gas emissions and improve air quality</p>	<p><b>Consistent:</b> The proposed project would provide a mixed use development with residential, open space, civic services, commercial, and offices uses connected by pedestrian walkways, paseos, and a promenade. The project would also incorporate roadways and parking for vehicle mobility through the project site. The overall development would be a pedestrian-oriented area with living, shopping, and working opportunities. The range of land uses would encourage people to go to the site and walk around the development to visit a number of these uses in one visit. There are also Orange County Transportation Authority bus stops along Crown Valley Parkway and Alicia Parkway.</p> <p>The proposed project is also locally serving in that it provides more options for residents to live and work locally and encourages diverse housing and transportation options that reduce VMT. The residential and nonresidential components of the proposed project would result in a lower rate of vehicle miles traveled than the citywide average.</p> <p>The project will include a 1.5 kilowatt/unit solar system on carports in the surface parking lot.</p>
<p><b>RTP/SCS G6:</b> Support healthy and equitable communities</p>	<p><b>Consistent:</b> See response to RTP/SCS G5.</p>
<p><b>RTP/SCS G7:</b> Adapt to a changing climate and support an integrated regional development pattern and transportation network</p>	<p><b>Consistent:</b> The proposed project incorporates multifamily residential units within walking distance of new commercial and office uses in addition to civic services, including the Laguna Niguel Branch Library and City Hall. The proposed project would be required to comply with the California Green Building Code, as adopted and amended by the City of Laguna Niguel, including Title 24 (Building Energy Efficiency Standards). Compliance with these standards would ensure that the proposed project provides an energy efficient development. Additionally, the proposed project's combination of uses and proposed pedestrian paths throughout the site encourage active mobility.</p>
<p><b>RTP/SCS G8:</b> Leverage new transportation technologies and data-driven solutions that result in more efficient travel</p>	<p><b>Not Applicable:</b> This is not a project-specific goal and is therefore not applicable.</p>
<p><b>RTP/SCS G9:</b> Encourage development of diverse housing types in areas that are supported by multiple transportation options</p>	<p><b>Applicable:</b> The proposed project would provide a mixed use development with residential, open space, civic services, commercial, and offices uses connected by pedestrian walkways, paseos, and a promenade. The project would also incorporate roadways and parking for vehicle mobility through the project site. The overall development would be a pedestrian-oriented area with living, shopping, and working</p>

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### LAND USE AND PLANNING

**Table 5.10-3 SCAG 2020-2045 RTP/SCS Goals Consistency Analysis**

RTP/SCS Goal	Project Compliance with Goal
	opportunities. There are also Orange County Transportation Authority bus stops along Crown Valley Parkway and Alicia Parkway. The proposed project is locally serving in that it provides more options for residents to live and work locally. The project would connect to existing Class II bikeways on Pacific Island Drive and Alicia Parkway. Bicycle parking would be located on the project site.
Promote conservation of natural and agricultural lands and restoration of habitats	<b>Consistent:</b> The project site is not within agricultural lands and would not conflict with a habitat conservation plan.

Source: 2020-2045 SCAG Regional Transportation Plan/Sustainable Communities Strategy.

The analysis concludes that the proposed project would be consistent with the applicable RTP/SCS goals. Therefore, implementation of the proposed project would not result in significant land use impacts related to relevant RTP/SCS goals.

**Level of Significance Before Mitigation:** Less than Significant Impact.

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**Impact 5.10-3: Project Implementation would not conflict with any applicable habitat conservation plan or natural community conservation plan. [Threshold LU-3]**

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The project site is within the boundaries of the Orange County Central and Coastal Natural Community Conservation Plan (NCCP)/Habitat Conservation Plan (HCP). However, the City is not a participant or permittee to this NCCP/HCP, and development within the City is not subject to the requirements of the NCCP/HCP. Thus, the proposed project would not conflict with any provisions related to such plans.

**Level of Significance Before Mitigation:** No Impact.

### 5.10.5 Cumulative Impacts

The proposed project includes a General Plan Amendment and Zone Change to allow a combination of commercial and residential development (up to 275 multifamily residential units) on the project site. The project site is surrounded by compatible land uses, including multifamily residential communities and shopping centers. Development of the proposed project would be consistent with the applicable plans, goals, policies, and regulations of the City's general plan and zoning code and the surrounding land uses, as demonstrated in detail above. It is reasonable to assume that the cumulative projects would implement and support local and regional planning goals and policies. Cumulative projects would be subject to the applicable permit approval process for the City of Laguna Niguel and would incorporate any mitigation measures necessary to reduce potential land use impacts.

Further, the proposed project would be functionally compatible with land uses currently in the project vicinity. Given the location of the proposed project and the cumulative projects, such developments are not expected to fundamentally alter the existing land use relationships in the immediate area, but rather would concentrate development on particular sites. This concentration of mixed land uses in the City, specifically the Town Center

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Expansion subarea, and in proximity to walkable spaces and transit, within areas of existing infrastructure and services, would further area-wide and regional goals for smart growth, resulting in a land use pattern that would not conflict with policies for reducing air pollution, greenhouse gas emissions, and vehicle miles traveled. In addition, as discussed above, because the proposed project would not conflict with General Plan policies or relevant goals in other applicable plans, the proposed project would not incrementally contribute to cumulative inconsistencies with respect to land use plans and relevant environmental policies. Therefore, cumulative impacts of the proposed project with regard to land use consistency would be less than significant and would not be cumulatively considerable.

#### 5.10.6 Level of Significance Before Mitigation

With adherence with regulatory requirements and the plans, programs, and policies in Section 5.10.3, Impact 5.10-1, Impact 5.10-2, and Impact 5.10-3 would be less than significant.

#### 5.10.7 Mitigation Measures

No mitigation measures are required.

#### 5.10.8 Level of Significance After Mitigation

Impacts are less than significant.

#### 5.10.9 References

Laguna Niguel, City of. 1992. General Plan. <https://www.cityoflagunaniguel.org/132/General-Plan>.

Southern California Association of Governments (SCAG). 2020, September. The 2020-2045 Regional Transportation Plan/Sustainable Communities Strategy (RTP/SCS) of the Southern California Association of Governments, Connect SoCal. <https://scag.ca.gov/read-plan-adopted-final-plan>.

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### LAND USE AND PLANNING

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## 5. Environmental Analysis

### 5.11 NOISE

This section of the Draft Environmental Impact Report (DEIR) discusses the fundamentals of sound; examines federal, state, and local noise guidelines, policies, and standards; reviews noise levels at existing noise-sensitive receptor locations; evaluates potential noise and vibration impacts associated with the Laguna Niguel City Center Mixed Use Project (proposed project); and provides mitigation to reduce noise impacts at sensitive receptor locations. The noise impact analysis is in accordance with the City's CEQA Manual. It also uses procedures and methodologies specified by the Federal Highway Administration (FHWA), the Federal Transit Administration (FTA), and the California Department of Transportation (Caltrans). Appendix J of this DEIR provides supplementary, project-specific background information, construction noise calculation worksheets, and project-generated traffic noise modeling results.

#### 5.11.1 Environmental Setting

##### 5.11.1.1 SOUND FUNDAMENTALS

Sound is a pressure wave transmitted through the air. It is described in terms of loudness or amplitude (measured in decibels), frequency or pitch (measured in Hertz [Hz] or cycles per second), and duration (measured in seconds or minutes). The standard unit of measurement of the loudness of sound is the decibel (dB). Changes of 1 to 3 dBA are detectable under quiet, controlled conditions and changes of less than 1 dBA are usually indiscernible. A 3 dBA change in noise levels is considered the minimum change that is detectable with human hearing in outside environments. A change of 5 dBA is readily discernable to most people in an exterior environment whereas a 10 dBA change is perceived as a doubling (or halving) of the sound.

The human ear is not equally sensitive to all frequencies. Sound waves below 16 Hz are not heard at all and are "felt" more as a vibration. Similarly, while people with extremely sensitive hearing can hear sounds as high as 20,000 Hz, most people cannot hear above 15,000 Hz. In all cases, hearing acuity falls off rapidly above about 10,000 Hz and below about 200 Hz. Since the human ear is not equally sensitive to sound at all frequencies, a special frequency dependent rating scale is usually used to relate noise to human sensitivity. The A-weighted decibel scale (dBA) performs this compensation by weighting frequencies in a manner approximating the sensitivity of the human ear.

Noise is defined as unwanted sound and is known to have several adverse effects on people, including hearing loss, speech and sleep interference, physiological responses, and annoyance. Based on these known adverse effects of noise, the federal government, the State of California, and many local governments have established criteria to protect public health and safety and to prevent disruption of certain human activities.

#### Technical Terminology

Noise is most often defined as unwanted sound. Although sound can be easily measured, the perception of noise and the physical response to sound complicate the analysis of its impact on people. People judge the relative magnitude of sound sensation in subjective terms such as "noisiness" or "loudness." The following are brief definitions of terminology used in this section:

## 5. Environmental Analysis

### NOISE

- **Sound.** A disturbance created by a vibrating object, which, when transmitted by pressure waves through a medium such as air, is capable of being detected by a receiving mechanism, such as the human ear or a microphone.
- **Noise.** Sound that is loud, unpleasant, unexpected, or otherwise undesirable.
- **Decibel (dB).** A unitless measure of sound on a logarithmic scale.
- **A-Weighted Decibel (dBA).** An overall frequency-weighted sound level in decibels that approximates the frequency response of the human ear.
- **Equivalent Continuous Noise Level ( $L_{eq}$ ); also called the Energy-Equivalent Noise Level.** The value of an equivalent, steady sound level which, in a stated time period (often over an hour) and at a stated location, has the same A-weighted sound energy as the time-varying sound. Thus, the  $L_{eq}$  metric is a single numerical value that represents the equivalent amount of variable sound energy received by a receptor over the specified duration.
- **Statistical Sound Level ( $L_n$ ).** The sound level that is exceeded “n” percent of time during a given sample period. For example, the  $L_{50}$  level is the statistical indicator of the time-varying noise signal that is exceeded 50 percent of the time (during each sampling period); that is, half of the sampling time, the changing noise levels are above this value and half of the time they are below it. This is called the “median sound level.” The  $L_{10}$  level, likewise, is the value that is exceeded 10 percent of the time (i.e., near the maximum) and this is often known as the “intrusive sound level.” The  $L_{90}$  is the sound level exceeded 90 percent of the time and is often considered the “effective background level” or “residual noise level.”
- **Day-Night Sound Level ( $L_{dn}$  or DNL).** The energy-average of the A-weighted sound levels occurring during a 24-hour period, with 10 dB added to the sound levels occurring during the period from 10:00 PM to 7:00 AM.
- **Community Noise Equivalent Level (CNEL).** The energy average of the A-weighted sound levels occurring during a 24-hour period, with 5 dB added from 7:00 pm to 10:00 pm and 10 dB from 10:00 pm to 7:00 am. For general community/environmental noise, CNEL and  $L_{dn}$  values rarely differ by more than 1 dB (with the CNEL being only slightly more restrictive, that is, higher than the  $L_{dn}$  value). As a matter of practice,  $L_{dn}$  and CNEL values are interchangeable and are treated as equivalent in this assessment.
- **Peak Particle Velocity (PPV).** The peak signal value of an oscillating vibration velocity waveform, usually expressed in inches per second (in/sec).
- **Vibration Decibel (VdB).** A unitless measure of vibration, expressed on a logarithmic scale and with respect to a defined reference vibration velocity. In the U.S., the standard reference velocity is 1 micro-inch per second ( $1 \times 10^{-6}$  in/sec).
- **Sensitive Receptor.** Noise- and vibration-sensitive receptors include land uses where quiet environments are necessary for enjoyment and public health and safety. Residences, schools, motels and hotels, libraries, religious institutions, hospitals, and nursing homes are examples.
- **RCNM.** Federal Highway Administration Roadway Construction Noise Model

## 5. Environmental Analysis

### NOISE

#### Sound Measurement

Sound pressure is measured through the A-weighted measure to correct for the relative frequency response of the human ear. That is, an A-weighted noise level de-emphasizes low and very high frequencies of sound similar to the human ear's de-emphasis of these frequencies.

Unlike linear units such as inches or pounds, decibels are measured on a logarithmic scale, representing points on a sharply rising curve. On a logarithmic scale, an increase of 10 dBA is 10 times more intense than 1 dBA, while 20 dBA is 100 times more intense, and 30 dBA is 1,000 times more intense. A sound as soft as human breathing is about 10 times greater than 0 dBA. The decibel system of measuring sound gives a rough connection between the physical intensity of sound and its perceived loudness to the human ear. Ambient sounds generally range from 30 dBA (very quiet) to 100 dBA (very loud).

Sound levels are generated from a source and their decibel level decreases as the distance from that source increases. Sound dissipates exponentially with distance from the noise source. This phenomenon is known as "spreading loss." For a single point source, sound levels decrease by approximately 6 dBA for each doubling of distance from the source. This drop-off rate is appropriate for noise generated by on-site operations from stationary equipment or activity at a project site. If noise is produced by a line source, such as highway traffic, the sound decreases by 3 dBA for each doubling of distance in a hard site environment. Line source noise in a relatively flat environment with absorptive vegetation decreases by 4.5 dBA for each doubling of distance.

Time variation in noise exposure is typically expressed in terms of a steady-state energy level equal to the energy content of the time varying period (called  $L_{eq}$ ), or alternately, as a statistical description of the sound level that is exceeded over some fraction of a given observation period. For example, the  $L_{50}$  noise level represents the noise level that is exceeded 50 percent of the time. Half the time the noise level exceeds this level and half the time the noise level is less than this level. This level is also representative of the level that is exceeded 30 minutes in an hour. Similarly, the  $L_2$ ,  $L_8$  and  $L_{25}$  values represent the noise levels that are exceeded 2, 8, and 25 percent of the time, or 1, 5, and 15 minutes per hour. These " $L_n$ " values are typically used to demonstrate compliance for stationary noise sources with a city's noise ordinance, as discussed below. Other values typically noted during a noise survey are the  $L_{min}$  and  $L_{max}$ . These values represent the minimum and maximum root-mean-square noise levels obtained over the measurement period.

Because community receptors are more sensitive to unwanted noise intrusion during the evening and at night, state law and the City require that, for planning purposes, an artificial dB increment be added to quiet time noise levels in a 24-hour noise descriptor called the Community Noise Equivalent Level (CNEL) or Day-Night Noise Level ( $L_{dn}$ ). The CNEL descriptor requires that an artificial increment of 5 dBA be added to the actual noise level for the hours from 7:00 p.m. to 10:00 p.m. and 10 dBA for the hours from 10:00 p.m. to 7:00 a.m. The  $L_{dn}$  descriptor uses the same methodology except that there is no artificial increment added to the hours between 7:00 p.m. and 10:00 p.m. Both descriptors give roughly the same 24-hour level with the CNEL being only slightly more restrictive (i.e., higher).

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### NOISE

#### Psychological and Physiological Effects of Noise

Physical damage to human hearing begins at prolonged exposure to noise levels higher than 85 dBA. Exposure to high noise levels affects our entire system, with prolonged noise exposure in excess of 75 dBA increasing body tensions, and thereby affecting blood pressure, the heart, and the nervous system. In comparison, extended periods of noise exposure above 90 dBA could result in permanent hearing damage. When the noise level reaches 120 dBA, a tickling sensation occurs in the human ear even with short-term exposure. This level of noise is called the threshold of feeling. As the sound reaches 140 dBA, the tickling sensation is replaced by the feeling of pain in the ear. This is called the threshold of pain. Table 5.11-1 shows typical noise levels from familiar noise sources.

**Table 5.11-1 Typical Noise Levels**

Common Outdoor Activities	Noise Level (dBA)	Common Indoor Activities
Onset of physical discomfort	120+	
	110	Rock Band (near amplification system)
Jet Flyover at 1,000 feet		
	100	
Gas Lawn Mower at three feet		
	90	
Diesel Truck at 50 feet, at 50 mph		Food Blender at 3 feet
	80	Garbage Disposal at 3 feet
Noisy Urban Area, Daytime		
	70	Vacuum Cleaner at 10 feet
Commercial Area		Normal speech at 3 feet
Heavy Traffic at 300 feet	60	
		Large Business Office
Quiet Urban Daytime	50	Dishwasher Next Room
Quiet Urban Nighttime	40	Theater, Large Conference Room (background)
Quiet Suburban Nighttime		
	30	Library
Quiet Rural Nighttime		Bedroom at Night, Concert Hall (background)
	20	
		Broadcast/Recording Studio
	10	
Lowest Threshold of Human Hearing	0	Lowest Threshold of Human Hearing

Source: Caltrans 2013a.

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#### 5.11.1.2 VIBRATION FUNDAMENTALS

Vibration is an oscillating motion in the earth. Like noise, vibration is transmitted in waves, but in this case through the earth or solid objects. Unlike noise, vibration is typically of a frequency that is felt rather than heard.

Vibration can be either natural as in the form of earthquakes, volcanic eruptions, or landslides, or human-made as from explosions, heavy machinery, or trains. Both natural and human-made vibration may be continuous such as from operating machinery, or impulsive as from an explosion.

As with noise, vibration can be described by both its amplitude and frequency. Amplitude may be characterized in three ways—displacement, velocity, and acceleration. Particle displacement is a measure of the distance that a vibrated particle travels from its original position and for the purposes of soil displacement is typically measured in inches or millimeters. Particle velocity is the rate of speed at which soil particles move in inches per second or millimeters per second. Particle acceleration is the rate of change in velocity with respect to time and is measured in inches per second or millimeters per second. Typically, particle velocity (measured in inches per second) and/or acceleration (measured in gravities) are used to describe vibration.

The way in which vibration is transmitted through the earth is called propagation. As vibration waves propagate from a source, the energy is spread over an ever-increasing area such that the energy level striking a given point is reduced with the distance from the energy source. This geometric spreading loss is inversely proportional to the square of the distance. Wave energy is also reduced with distance as a result of material damping in the form of internal friction, soil layering, and void spaces. The amount of attenuation provided by material damping varies with soil type and condition as well as the frequency of the wave.

#### 5.11.1.3 REGULATORY BACKGROUND

To limit population exposure to physically and/or psychologically damaging as well as intrusive noise levels, the State of California, various county governments, and most municipalities in the state have established standards and ordinances to control noise. There are no federal regulations directly applicable to the project under CEQA.

##### **State**

##### *California Building Code*

The California Building Code requires that interior noise levels attributable to exterior sources shall not exceed 45 dB in any habitable room (Cal. Code of Reg. Title 24, Part 2, Volume 1, Chapter 12, Section 1207.11.2, Allowable Interior Noise Levels). The noise metric is evaluated as either the day-night average sound level (L<sub>dn</sub>) or the community noise equivalent level (CNEL), consistent with the noise element of the local general plan.

The State of California's noise insulation standards for nonresidential uses are codified in the California Code of Regulations, Title 24, Building Standards Administrative Code, and Part 11, California Green Building Standards Code (CALGreen). CALGreen noise standards are applied to new or renovation construction projects in California to control interior noise levels resulting from exterior noise sources. Proposed projects may use either the prescriptive method (Section 5.507.4.1) or the performance method (Section 5.507.4.2) to

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show compliance. Under the prescriptive method, a project in a noise environment of 65 dBA CNEL or higher must demonstrate transmission loss ratings for the wall and roof-ceiling assemblies and exterior windows when located within a noise environment of 65 dBA CNEL or higher. Under the performance method, a project must demonstrate that interior noise levels do not exceed 50 dBA  $L_{eq}(1hr)$ .

#### Local Noise Standards

##### *Laguna Niguel General Plan*

The Noise Element of the Laguna Niguel General Plan has goals, policies, and actions to protect residential neighborhoods and noise-sensitive receptors from excessive noise levels. The City uses the land use noise compatibly guidelines shown in Table 5.11-2 when siting new development and making land use decisions.

**Table 5.11-2 Laguna Niguel Land Use Noise Standards (CNEL dBA)**

Land Use	Interior Standard	Exterior Standard
Residential Detached Residential Attached	45	65
Neighborhood Commercial Community Commercial	-	70
Professional Office	50	
Community Commercial/Professional Office	-	70
Industrial/Business Park	55 <sup>1</sup>	75
Professional Office/Industrial/Business Park Industrial/Business Park/Professional Office/Community Commercial	-	75
Public/Institutional Public Institutional/Professional Office	50	70
Schools	50	65 <sup>2</sup>
Parks and Recreations	-	70

Source: City of Laguna Niguel CEQA Manual.

<sup>1</sup> Where quiet is a basis for use.

<sup>2</sup> In interior or exterior classroom areas during school operating hours

##### *Laguna Niguel Municipal Code*

The Laguna Niguel Municipal Code, Division 6, Noise Control Table 5.11-3, summarizes the City's noise standards. These limits apply to all residential properties within the City.

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**Table 5.11-3 Exterior Noise Standards: City of Laguna Niguel**

Time Period	Noise Level, dBA				
	L <sub>50</sub>	L <sub>25</sub>	L <sub>8</sub>	L <sub>2</sub>	L <sub>max</sub>
7:00 am–10:00 pm	55	60	65	70	75
10:00 pm–7:00 am	50	55	60	65	70

Source: City of Laguna Niguel Municipal Code, Sec. 6-6.5 Exterior Noise Standards.

<sup>1</sup> A 5 dBA penalty shall be applied in the event of an alleged offensive noise such as impact noise, simple tones, speech, music, or any combination of thereof.

<sup>2</sup> The noise standards shall not exceed:

- a The noise standard for a cumulative period of more than 30 minutes in any hour (L<sub>50</sub>); or
- b The noise standard plus 5 dBA for a cumulative period of more than 15 minutes in any hour (L<sub>25</sub>); or
- c The noise standard plus 10 dBA for a cumulative period of more than 5 minutes in any hour (L<sub>8</sub>); or
- d The noise standard plus 15 dBA for a cumulative period of more than 1 minute in any hour (L<sub>2</sub>); or
- e The noise standard plus 20 dBA for any period of time (L<sub>max</sub>).

<sup>3</sup> If the ambient noise level exceeds any of the first four noise limit categories, the cumulative period applicable to such category shall be increased to reflect the ambient noise level. If the ambient noise level exceeds the fifth noise limit category, the maximum allowable noise level under such category shall be increased to reflect the maximum ambient noise level.

### Exemptions

The Municipal Code (Division 6 Noise Control, Section 6-6-7) exempts noise sources associated with construction, repair, remodeling, or grading during the hours of 7:00 am to 8:00 pm on weekdays and Saturday. Construction noise on Sundays and federal holidays is not exempt from the City's noise standards. In addition, outdoor gatherings, public dances, and shows are exempt, provided such events are conducted pursuant to a license issued by the City. The Municipal Code also exempts noise sources associated with the maintenance of real property, provided such activities take place between 7:00 a.m. and 8:00 p.m. on any day except Sunday or a federal holiday, or between the hours of 9:00 a.m. and 8:00 p.m. on Sunday or a federal holiday.

#### 5.11.1.4 EXISTING NOISE ENVIRONMENT

In general, the City is subject to typical urban and suburban noise sources. Noise from traffic flows, commercial and retail centers, temporary construction, property maintenance activities, and day-to-day outdoor activities (e.g., periodic landscaping, children playing, animal sounds) characterizes the City's noise environments. The City also has several transportation noise sources, including the I-5 and SR-73 freeways as well as major arterials, such as Crown Valley Parkway, Aliso Creek Road, Niguel Road, Cabot Road, Alicia Parkway, and La Paz Road. There are no notable noise sources related to railroads or aircraft facilities near the project site.

### Sensitive Receptors

Certain land uses are particularly sensitive to noise and vibration, including schools, residences, hospital facilities, religious facilities, and open space/recreation areas where quiet environments are necessary for the enjoyment, public health, and safety of the community. Commercial and industrial uses are not considered noise- and/or vibration-sensitive uses.

Land uses surrounding the project site are shown on Figure 5.11-1, *Nearest Noise-Sensitive Receptors to Project Site*. The nearest sensitive uses to the project site include residential uses, a church, and a daycare facility. The nearest residential uses are adjacent to the southwest. The Laguna Niguel Presbyterian Church is across the street from the project site, at the corner of Pacific Island Drive and Alicia Parkway. Additional residential uses are across Crown Valley Parkway and Pacific Island Drive. Note that sensitive receptors in Figure 5.11-1 are named the

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same as discussed in the construction noise and vibration impact analysis and tables below. The impact analysis will discuss the various distances from receptors to noise and vibration sources (construction, mechanical equipment, recreational, special events, etc.).

#### Ambient Noise Measurements

To determine baseline noise levels in the project vicinity, ambient noise monitoring was conducted by PlaceWorks in September 2019. Long-term (48-hour) measurements were conducted at two locations, and short-term (15-minute) measurements were conducted at four locations. Measurements were made during weekdays, and short-term measurements were during the peak evening traffic hours of 3:00 pm to 6:00 pm. All measurements were conducted Tuesday, September 3, through Thursday, September 5, 2019<sup>1</sup>.

The primary noise sources around the measurements were traffic, aircraft overflights, and maintenance noise from the County Maintenance Yard. Urban activity noise, such as dogs barking and birds chirping also contributed to the overall noise environment. Meteorological conditions during the measurement periods were favorable for outdoor sound measurements and were noted to be representative of the typical conditions for the season. Generally, conditions included mostly clear skies with daytime temperatures of 83 degrees Fahrenheit (°F) and average wind speeds of 1 mile per hour (mph). All sound level meters were equipped with a windscreen during measurements.

All sound level meters used for noise monitoring satisfy the American National Standards Institute standard for Type 1 instrumentation.<sup>2</sup> The sound level meters were set to “slow” response and “A” weighting (dBA). The meters were calibrated prior to and after the monitoring period. All measurements were at least five feet above the ground and away from reflective surfaces. Noise measurement locations are described below and shown on Figure 5.11-2, *Approximate Noise Monitoring Locations*.

- **Long-Term Location 1 (LT-1)** was on Pacific Island Drive, south of Alicia Parkway and north of Highlands Avenue. The meter was approximately 30 feet north of the nearest travel lane centerline. A 48-hour noise measurement began at 3:00 pm on Tuesday, September 03, 2019. The noise environment of this site is characterized primarily by traffic from Pacific Island Drive. However, it should be noted that across the street is a fire station and the county maintenance yard. While in the field, alarms or fire truck sirens were not observed; however, this area is subject to these existing noise sources.
- **Long-Term Location 2 (LT-2)** was on Crown Valley Parkway south of Alicia Parkway, in front of the Orange County Library. The meter was approximately 35 feet west of the nearest southbound travel lane centerline. A 48-hour noise measurement began at 4:00 pm on Tuesday, September 3, 2019. The noise environment of this site is characterized primarily by traffic from Crown Valley Parkway.

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<sup>1</sup> Noise measurements were taken pre-pandemic lockdown, which avoids the unique changes in traffic and activity patterns during the pandemic. Furthermore, no substantive new development has occurred in the surrounding area that would change the noise environment.

<sup>2</sup> Monitoring of ambient noise was performed using Larson-Davis model LxT and 820 sound level meters.



Figure 5.11-1 - Nearest Noise Sensitive Receptors to Project Site  
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- Project Boundary
- 1** Residential Uses to the North
- 2** Laguna Niguel KinderCare
- 3** Laguna Niguel Presbyterian Church
- 4** Residential Uses to Southeast
- 5** Residential Uses to Southwest
- 6** Residential Uses to West

0 350  
Scale (Feet)



Source: Nearmap, 2019

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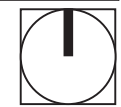
*This page intentionally left blank.*

Figure 5.11-2 - Approximate Noise Monitoring Locations  
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- - - Project Boundary    
 ● ST-X Short-Term Noise Measurement Locations (4)    
 0  350  
● LT-X Long-Term Noise Measurement Locations (2)    
 Scale (Feet)

Source: Nearmap, 2019



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- **Short-Term Location 1 (ST-1)** was at the end of Via Reata on the northwest corner property line. A 15-minute noise measurement began at 4:10 pm on Thursday, September 5, 2019. The noise environment of this site is characterized primarily by distant traffic from Pacific Island Drive, HVAC equipment from the Niguel Summit Condominiums, and vehicle maintenance activity from the county maintenance yard. Traffic noise levels generally ranged from 46 to 50 dBA, and maintenance yard activity from 46 to 52 dBA. Background noise levels (consisting of HVAC noise) were 44 dBA.
- **Short-Term Location 2 (ST-2)** was behind 30286 Via Reata at the property boundary between the project site and residences. A 15-minute noise measurement began at 3:48 pm on Thursday September 5, 2019. The noise environment of this site is characterized primarily by distant traffic from Pacific Island Drive and Crown Valley Parkway, HVAC noise, and vehicle maintenance activity from the county maintenance yard. County yard maintenance noise generally ranged from 45 to 50 dBA, and traffic noise levels from 47 to 50 dBA. Other noise sources included church bells at 48 dBA and one aircraft overflight that ranged from 44 to 54 dBA. The background ambient was observed to be as low as 41 dBA.
- **Short-Term Location 3 (ST-3)** was at the intersection of Via Corona and Via Venida facing the Orange County Library. A 15-minute noise measurement was conducted beginning at 4:39 pm on Thursday, September 5, 2019. The noise environment of this site is characterized primarily by traffic from Crown Valley Parkway. Traffic noise levels generally ranged from 47 to 50 dBA. One aircraft overflight was observed ranging from 50 to 55 dBA. One heavy-duty truck was observed up to 65 dBA traveling on Crown Valley Parkway. The background ambient was observed to be as low as 42 dBA.
- **Short-Term Location 4 (ST-4)** was at Alicia Parkway and Town Center near the nonoperational South County Justice Center. A 15-minute noise measurement was conducted, beginning at 5:02 pm on Thursday, September 5, 2019. The noise environment of this site is characterized primarily by Alicia Parkway traffic. Traffic noise levels generally ranged from 66 to 71 dBA. Ambient noise levels during red lights with no traffic were as low as 50 dBA.

#### *Ambient Noise Monitoring Results*

During the ambient noise survey, the CNEL noise levels at monitoring locations ranged from 69 to 71 dBA CNEL. The long-term and short-term noise measurement results are summarized in Tables 5.11- 4 and 5.11-5, respectively. A summary of the daily trend during long-term noise measurements is provided in Appendix J.

**Table 5.11-4 Long-Term Noise Measurements Summary in A-Weighted Sound Levels**

Monitoring Location	Description	CNEL	Lowest L <sub>eq</sub> , 1-hr	Highest L <sub>eq</sub> , 1-hr
LT-1	Pacific Island Drive – South of Alicia Parkway	69	49.3	71.6
LT-2	Crown Valley Parkway – South of Alicia Parkway	71	51.0	74.7

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**Table 5.11-5 Short-Term Noise Measurements Summary in A-Weighted Sound Levels**

Monitoring Location	Description	15-minute Noise Level, dBA						
		L <sub>eq</sub>	L <sub>max</sub>	L <sub>min</sub>	L <sub>2</sub>	L <sub>8</sub>	L <sub>25</sub>	L <sub>50</sub>
ST-1	End of Reata St, Property Line 4:10 PM, 09/05/2019	46.1	52.0	43.0	49.8	48.2	46.5	45.5
ST-2	30286 Via Reata, 3:48 PM 09/05/2019	47.1	56.4	41.4	53.5	49.4	47.5	46.1
ST-3	Via Corona/Via Venida, 4:39 PM 09/05/2019	50.3	65.5	42.3	55.0	52.9	51.3	48.8
ST-4	Town Center & Alicia Parkway, 5:02 PM, 09/05/2019	64.4	73.7	49.8	70.0	68.7	65.9	62.9

### 5.11.2 Thresholds of Significance

Noise and vibration impacts can occur from construction operations and long-term operation of the project, both of which must be analyzed. According to Appendix G of the CEQA Guidelines and the City's CEQA Manual, a project would normally have a significant effect on the environment if the project would result in:

- N-1 Generation of long-term operational mobile and stationary noise that would exceed the noise standards set forth in the Laguna Niguel CEQA Manual.
- N-2 Construction activities occurring within 500 feet of a sensitive use and exceeding the construction noise standards in the Laguna Niguel CEQA Manual.
- N-3 Generation of groundborne vibration or groundborne noise levels at sensitive receptors in excess of Caltrans criteria in Tables 5.11-6 and 5.11-7.
- N-4 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, if the project would expose people residing or working in the project area to excessive noise levels.

### Operational Noise

Project operational impacts are generally due to the project including single or multiple noise sources within the project site, or causing increases in vehicular traffic on city streets, or both. The City's CEQA Manual uses the following screening criteria to determine whether further study is required:

- Would the proposed project introduce a stationary noise source audible beyond the property line of the project site?

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- Would the project include 75 or more dwelling units, 100,000 square feet or greater of nonresidential development, or have the potential to generate 1,000 or more averaged daily vehicle trips?<sup>3</sup>

### *Mobile*

A project would have a significant operational mobile noise impact on sensitive receptors if:

- The project results in ambient exterior noise levels at nearby noise-sensitive uses to increase above the City standards in Table 5.11-2 (i.e., 65 dB CNEL for residential land uses); or
- Baseline noise levels at nearest noise-sensitive land uses without the project are below 55 dBA CNEL and the project results in noise level increases of 10 dBA CNEL or more in ambient noise levels; or
- Baseline noise levels at nearest noise-sensitive land uses without the project are in the range of 55 to 60 dBA CNEL, and the project results in ambient noise level that are 5 dBA CNEL or more above baseline noise levels; or
- Baseline noise levels at nearest noise-sensitive land uses without the project are above 60 dBA CNEL, and the project results in a noise level increase of 3 dBA CNEL or more above baseline noise levels.

### *Stationary (Mechanical)*

Laguna Niguel Municipal Code Division 6 establishes noise standards applicable to stationary sources. Section 6-6-5 establishes a 55 dBA daytime exterior noise standard (7:00 am to 10:00 pm) and a 50 dBA nighttime exterior noise standard (10:00 pm to 7:00 am), which constitute the thresholds of significance for stationary sources.

A significant impact would occur if noise levels on any other residential property exceed the exterior noise level standards in Table 5.11-3:

- The noise standard for a cumulative period of more than 30 minutes in any hour ( $L_{50}$ );
- The noise standard plus five dB(A) for a cumulative period of more than 15 minutes in any hour ( $L_{25}$ );
- The noise standard plus ten dB(A) for a cumulative period of more than five minutes in any hour ( $L_8$ );
- The noise standard plus 15 dB(A) for a cumulative period of more than one minute in any hour ( $L_2$ ); or
- The noise standard plus 20 dB(A) for any period of time ( $L_{max}$ ).+

If the ambient noise level exceeds any of the first four noise limit categories listed above, the cumulative period applicable to such category shall be increased to reflect the ambient noise level. If the ambient noise level exceeds the fifth noise limit category listed above, the maximum allowable noise level under such category shall be increased to reflect the maximum ambient noise level.

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<sup>3</sup> Through prior study, development projects of less intensity than these thresholds have been demonstrated to not result in noise level increase above 3 dBA in typical city settings. An increase of 3 dBA is the point where noise increases become barely perceptible to most individuals with normal hearing. A less than 3 dBA increase would therefore not be a noticeable increase and therefore, less than significant.

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#### Construction Noise

As stated in the City's CEQA Manual, construction noise typically does not cause a substantial noise at distances beyond 500 feet from construction activities or when construction is limited to allowed days and times.<sup>4</sup> Therefore, the following noise screening criteria are used for a new project construction:

- Would construction occur within 500 feet of a noise sensitive use?<sup>5</sup>
- Would construction occur between the hours of 8:00 pm and 7:00 am Monday through Saturday, or anytime on Sunday or federal holidays?

A "yes" to either screening question, would warrant further analysis. If a project requires further study of construction noise, a detailed construction noise analysis shall be done according to the methodology and criteria contained in the Federal Transit Administration (FTA), Transit and Vibration Impact Assessment Manual (FTA 2018) or the most current version. Specifically, the construction noise assessment shall be prepared in accordance with "Option B: Detailed Analysis" included in the FTA Manual.

A significant construction noise impact would occur where construction is located within 500 feet of a noise sensitive use and:

- The daytime construction noise exceeds the threshold of 80 dBA Leq<sub>(8hr)</sub><sup>6</sup> at the property line of the residential receptor

Nighttime construction activities are generally prohibited by the Laguna Niguel Municipal Code, however if an exemption is provided, the construction noise thresholds at residential receptors is 70 dBA Leq<sub>(8hr)</sub>.

#### Vibration

##### *Vibration Damage*

The City's CEQA Manual has adopted the Caltrans vibration or groundborne criteria to determine vibration damage impacts. Therefore, the Caltrans standards summarized in Table 5.11-6 are the thresholds of significance for vibration impacts.

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<sup>4</sup> The distance of 500 feet is applied as a screening threshold because noise naturally attenuates at 6 dB every doubling of distance from the reference noise source. Most construction equipment has a reference noise source of 50 feet. Therefore, at 500 feet noise will have naturally attenuated over 20 dB without accounting for other natural attenuation such as topography, vegetation, or other structures. A 20 dB reduction would substantially reduce noise emissions from the loudest construction equipment to below a level that would regularly impair speech, resulting in a less than significant impact.

<sup>5</sup> Noise-sensitive land uses are defined in Chapter VI of the Noise Element of the Laguna Niguel General Plan as "residential areas, school sites, childcare areas, library, parks and a senior center site."

<sup>6</sup> The Leq 8 hour is an average of noise levels over an 8-hour period to approximate a full-day of construction.



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Structure and Condition	Maximum PPV (in/sec)	
	Transient Sources	Continuous/Frequent Intermittent Sources
Extremely fragile historic buildings, ruins, ancient monuments	0.12	0.08
Fragile buildings	0.2	0.10
Historic and some old buildings	0.5	0.25
Older residential structures	0.5	0.3
New residential structures	1.0	0.5
Modern industrial /commercial buildings	2.0	0.5

Source: Caltrans 2013b.

Note: Transient sources create a single isolated vibration event, such as blasting or drop balls. Continuous/frequent intermittent sources include impact pile drivers, pogo-stick compactors, crack-and seat equipment, vibratory pile drivers, and vibratory compaction equipment.

*Vibration Annoyance*

The City's CEQA Manual has adopted the Caltrans vibration or groundborne criteria to determine vibration annoyance impacts (see Table 5.11-7). The proposed project does not propose transient vibration sources as defined in the CEQA Manual. Therefore, through adoption of the City's CEQA Manual, the Caltrans "distinctly perceptible" vibration level of 0.04 in/sec PPV for continuous/frequent intermittent sources is the threshold of significance for vibration annoyance impacts. This is equivalent to approximately 80 VdB.<sup>7</sup>

**Table 5.11-7 Groundborne Vibration Potential Annoyance Criteria**

Human Response	Maximum PPV (in/sec)	
	Transient Sources	Continuous/Frequent Intermittent Sources
Barely perceptible	0.04	0.01
Distinctly perceptible	0.25	0.04
Strongly perceptible	0.9	0.10
Severe	2.0	0.4

Source: Caltrans 2013b.

Note: Transient sources create a single isolated vibration event, such as blasting or drop balls. Continuous/frequent intermittent sources include impact pile drivers, pogo-stick compactors, crack-and seat equipment, vibratory pile drivers, and vibratory compaction equipment.

**5.11.3 Plans, Programs, and Policies**

PPP N-1 The proposed project shall comply with City of Laguna Niguel Municipal Code's Exterior Noise Standards (see Section 5.11.1.3, *Regulatory Background*) and limited construction hours (Monday through Saturday from 7:00 am to 8:00 pm, and no construction on Sundays or

<sup>7</sup> RMS velocity in decibels, VdB re 1 micro-in/sec.

The ratio of PPV to maximum rms amplitude is defined as the *crest factor* for the signal. The crest factor is always greater than 1.71. For groundborne vibration the crest factor is usually 4 to 5.

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federal holidays) and Policy 4.1 of the Laguna Niguel Noise Element related to construction noise.

PPP N-2 The proposed project shall comply with Goal 4, Policy 4.1, and Action 4.1.1 of the General Plan to enforce the noise ordinance for all nonemergency construction operations.

PPP N-3 The Applicant shall implement the following best management practices (BMPs) during grading, demolitions, and construction to limit construction-related noise prior to issuance. During the entire active construction period, equipment and trucks used for project construction shall use the best available noise control techniques (e.g., improved mufflers, use of intake silencers, ducts, engine enclosures, acoustically attenuating shields, shrouds wherever feasible.

- Require that impact tools (e.g., jack hammers and hoe rams) be hydraulically or electrically powered wherever possible. Where the use of pneumatic tools is unavoidable, an exhaust muffler shall be used on the compressed air exhaust as shall external noise jackets on the tools.
- Stationary equipment such as generators and air compressors shall be located as far as feasible from nearby noise-sensitive uses.
- Stockpiles of materials shall be located as far as feasible from nearby noise-sensitive receptors.
- Signs will be posted at the job site entrance(s), within the on-site construction zones, and along queueing lanes (if any) to reinforce the prohibition of unnecessary engine idling. All other equipment will be turned off if not in use for more than five minutes.
- During the entire activity construction period and to the extent feasible, the use of noise-producing signals, including horns, whistles, alarms, and bells will be for safety warning purposes only. The construction manager shall use smart back-up alarms, which automatically adjust the alarm level based on the background noise level, or switch off back-up alarms and replace with human spotters in compliance with all safety requirements and laws.

PPP N-4 Per the California Building Code Title 24 requirement of 45 dBA CNEL or lower for habitable dwellings, the project applicant shall retain a qualified acoustical specialist to prepare a detailed analysis of interior residential noise levels resulting from all exterior sources during the design phase pursuant to requirements set forth in the State Building Code and City requirements. The study will review the final site plan, building elevations, and floor plans prior to construction and recommend building (residential building 1 and 2) treatments to reduce residential interior noise levels to 45 dBA CNEL or lower at the project site. Treatments would include, but are not limited to, sound-rated windows and doors, sound-rated wall and window constructions, acoustical caulking, protected ventilation openings, etc. The specific determination of what noise insulation treatments are necessary shall be conducted during

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final design of the project. Results of the analysis, including the description of the necessary noise control treatments, shall be submitted to the City, along with the building plans and design, prior to issuance of a building permit. Upon approval by the City, the treatments shall be incorporated into final building and design plans prior to issuance of a building permit.

### 5.11.4 Environmental Impacts

#### 5.11.4.1 METHODOLOGY

This noise evaluation was prepared in accordance with the requirements of CEQA and the City's CEQA Manual to determine if the proposed project would result in significant construction and operational impacts at nearby sensitive receptors. Construction noise modeling was conducted using the FHWA Roadway Construction Noise Model (RCNM). Transportation noise sources were modeled using a version of the FHWA's Traffic Noise Prediction Model and the average daily traffic segment volumes provided by Linscott Law & Greenspan, Engineers (see Appendix L).

#### 5.11.4.2 IMPACT ANALYSIS

The following impact analysis addresses thresholds of significance. The applicable thresholds are identified in brackets after the impact statement.

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**Impact 5.11-1: Project implementation would result in long-term operation-related noise that would not exceed the City's standards. [Threshold N-1]**

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#### Stationary Noise

##### *HVAC/Mechanical Equipment*

The proposed project would have HVAC systems. Typical HVAC equipment generates noise levels ranging up to 72 dBA at 3 feet. The nearest sensitive receptors would be to the south and southwest, approximately 150 feet from any possible future HVAC unit locations. At that distance, noise levels would attenuate to approximately 38 dBA. This would not exceed the City's daytime and nighttime noise standards of 55 and 50 dBA L<sub>50</sub>, respectively. Operational noise from HVAC and mechanical equipment would be less than significant.

##### *Residential Recreational Outdoor Spaces*

The project would consist of two separate and distinct apartment buildings, Residential 1 and Residential 2. The nearest proposed residential building to existing sensitive receptors is Residential 2 near the northwest corner of the site along Pacific Island Drive west of OCFA's Fire Station No. 5. Residential 2 building amenities include a private lounge situated immediately adjacent to and integrated with a resort-style pool and spa. These common areas would be approximately 400 feet to the nearest sensitive receptor property line. These common areas and amenities could potentially generate noise from interpersonal conversations. A typical conversation is approximately 60 dBA between two people at distance of 3 feet. At a distance of 400 feet, noise levels would attenuate to less than 20 dBA and are expected to be inaudible over the existing ambient noise environment.

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This would not exceed the City's daytime and nighttime noise standards of 55 and 50 dBA L<sub>50</sub>, respectively. Therefore, this impact would be less than significant.

#### *Daily Retail Uses and Special Events*

General hours of operations would be from 10:00 am to 9:00 pm seven days a week for all commercial uses. Some exceptions include coffee and breakfast cafes that may be open as early as 6:00 am, restaurant bars that may be open until 12:00 am, and selected restaurants that may be open until 11:00 pm on weekends. Many service uses, such as salons and banks, as well as most stores and shops would close earlier than 9:00 pm. Unlike some special events, daily activities would not include amplified speech or planned and organized events. Therefore, daily activities would not significantly increase ambient noise levels and impacts would be less than significant. Special events, including festivals, movie screenings, concerts, and farmers markets, would typically be held on weekends. Small events held weekly may include yoga in the park with approximately 20 people; medium events held monthly may include movies in the park with approximately 100 people; and larger events held quarterly could include craft festivals, larger-scale food and wine events, or community-based seasonal events. Per COA-N1, all special events would conclude no later than 10:00 pm.

Movie screenings and concerts may include amplified sound from speakers and may take place during evening hours. The nearest sensitive receptors are in the El Niguel residential community to the southwest, approximately 475 feet from the center of the Town Green area. Section 6-6-7(2) exempts noise from outdoor gatherings, public dances, and shows from the Municipal Code exterior noise standards provided such events are conducted pursuant to a license issued by the City. Since activities conducted at the project site would be exempt from the Municipal Code standards. To minimize the potential noise impact to surrounding residences, special events with outdoor amplified music or sound will be required to comply with the following Condition of Approval (COA) for the proposed project:

COA N-1 Prior to special events with outdoor amplified music or sound, the event promoter shall obtain a Temporary Use Permit from the City. The Temporary Use Permit shall demonstrate that special event noise will not exceed 65 dBA L<sub>eq</sub> at off-site residential property lines. All amplified speech, music, or movie nights shall be concluded by 10:00 p.m. Measures to achieve the performance standard of 65 dBA L<sub>eq</sub> include, but are not limited, to:

- Orient speakers away from nearby residences;
- Position speakers between project buildings or use other shielding and barrier methods to break line-of-sight with nearby residential uses;
- Incorporate bandwidth and/or peak limiters into the sound system;
- Other speaker angling and directivity techniques.

Because special events are exempt from the Municipal Code standards and would be required to comply with COA-N-1 to reduce noise levels at nearby residential uses, the noise impacts of these activities would be less than significant

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#### *Deliveries*

Expected hours of deliveries would occur between 8:00 am and 11:00 am (daytime hours). PlaceWorks measured noise from truck unloading and loading activities, and the results indicate that truck unloading produces noise levels of 40 dBA  $L_{50}$  at a distance of 50 feet (PlaceWorks 2012). The closest loading and unloading activity that could occur near sensitive receptors would be near Building 1 and Building 2 along Crown Valley Parkway. The nearest sensitive receptors to that building are approximately 140 feet to the southwest from the rear of the building. At that distance noise levels would attenuate to approximately 31 dBA  $L_{50}$ . This would not exceed the City's daytime and nighttime noise standards of 55 and 50 dBA  $L_{50}$ , respectively.

#### *Parking Structure*

Typical parking lot/structure noises include car-door slams, car horns, car audio systems, people talking, vehicle pass-bys, engine idling, and car beeps. Other types of disruptive noise that could occur within the parking structure would be car alarm noise and horns. Each of these individual noise sources lasts for a short duration, and their occurrences would be infrequent. The proposed project would construct a three-level parking structure with a rooftop level. A similar parking structure noise at another location in Orange County was previously modeled—specifically, a three-story parking structure with open rooftop level for the Mariner's Pointe Project in Newport Beach. Modeling shows that a three-story parking structure would generate noise levels of approximately 45 dBA  $L_{eq}$  at 45 feet from the parking structure. The nearest receptors to the proposed parking structure are the residences to the southwest at approximately 75 feet. Noise levels at 75 feet would attenuate to approximately 41 dBA  $L_{eq}$ . This would not exceed the City's daytime and nighttime noise standards of 55 and 50 dBA, respectively. Therefore, impacts would be less than significant.

#### *Trash Compactor/Trash Pick-Up*

The proposed project would have a trash compactor near the southwest property line, just north of the residential community, El Niguel. Trash compactors typically generate noise levels of 74 dBA at 10 feet (DEHS 2018). The nearest residences at the El Niguel community are approximately 100 feet away. At 100 feet, noise levels would attenuate to 54 dBA. Trash compactor noise would not exceed the City's daytime noise standards of 55 dBA but could exceed the nighttime noise standard of 50 dBA. To minimize the potential noise impact to surrounding residences, trash compactor operation will be required to comply with the following Condition of Approval (COA) for the proposed project:

COA N-2            Operation of the trash compactor shall not occur between the hours of 10:00 pm and 7:00 am.

, Since no trash compacting activities would occur between the hours of 10:00 pm and 7:00 am., and because daytime operation would not exceed the City's standards , impacts would be less than significant.

Trash pick-up can be considered noisy and a nuisance to noise sensitive receptors. However, this sanitation operation typically occurs no more than once a day, two to three time per week, and is short lived. In addition, the City has an exclusive franchise hauler, CR&R Environmental Services Inc (CR&R); CR&R and the City

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have a written agreement, “Agreement for the Collection, Transpiration, Processing and Diversion of Recyclable Materials, Food Scraps, Yard Trimming, Wood, Construction and Demolition Debris and Other Materials and for the Collection, Transpiration and Disposal of Municipal Solid Waste” (Agreement). Section 4.09(B) of the Agreement, “Collection Standards, Noise,” states that all collection operations shall be conducted as quietly as possible and shall conform to City noise level regulations.

The noise level during the stationary compaction process shall not exceed 75 decibels at a distance of 25 feet from the Collection vehicle measured at an elevation of five (5) feet above ground level. Contractor shall submit to City, upon City's request, a certificate of vehicle noise testing by an independent testing facility of a representative sample of Collection vehicles. The City may also conduct random checks of noise emission levels to ensure such compliance.

In addition, trash-pick up is considered part of regular maintenance and Section 6-6-7(9) states that noise sources associated with the maintenance of real property, provided such activities take place between 7:00 a.m. and 8:00 p.m. on any day except Sunday or a federal holiday, or between the hours of 9:00 a.m. and 8:00 p.m. on Sunday or a federal holiday are exempt. No impact would occur.

### Traffic Noise

Traffic noise increases were calculated using a version of the FHWA's Traffic Noise Prediction Model and based on existing and future traffic volumes. Vehicle mix (auto, medium-duty trucks, and heavy-duty trucks) was based on project area traffic counts, and Caltrans vehicle mix data were applied to Pacific Coast Highway. The posted speed limits and number of travel lanes were also input to the model. Table 5.11-8 shows the calculated existing and future noise levels at 50 feet from the nearest travel centerline as well as the traffic noise increase with implementation of the proposed project. Cumulative traffic noise impacts are discussed under Section 5.11.5, *Cumulative Impacts*.

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**Table 5.11-8 Traffic Noise Levels for Existing and Project Buildout Conditions**

Roadway Segment	Traffic Volumes (average daily trips)				Traffic Noise Level at 50 Feet (dBA CNEL)				Traffic Noise Increase (dBA CNEL)		
	Existing	Existing Plus Project	2040 Buildout Plus Project	2040 Buildout No Project	Existing	Existing Plus Project	2040 No Project	2040 With Project	Project Noise Increase	Cumulative Noise Increase <sup>1</sup>	Cumulative Noise Increase due to Project <sup>2</sup>
Alicia Parkway – Aliso Creek to Highland Avenue	43,566	46,404	48,086	50,924	76.6	76.9	77.0	77.3	0.3	0.7	0.2
Alicia Parkway – Highlands Avenue to Niguel Road	32,294	35,511	35,628	38,845	75.3	75.7	75.7	76.1	0.4	0.8	0.4
Alicia Parkway – Niguel Road to Pacific Island Drive/Ivy Glenn Drive	21,891	25,108	24,126	27,343	73.6	74.2	74.1	74.6	0.6	1.0	0.5
Crown Valley Parkway – Greenfield Drive to Moulton Parkway/Golden Lantern Street	35,764	38,035	40,935	43,206	75.8	76.0	76.3	76.6	0.3	0.8	0.2
Crown Valley Parkway – Moulton Parkway/Golden Lantern Street to La Paz Road	29,492	32,330	32,892	35,730	73.8	74.2	74.3	74.6	0.4	0.8	0.4
Crown Valley Parkway – La Paz Road – to Niguel Road	30,894	33,922	34,423	37,451	74.0	74.4	74.4	74.8	0.4	0.8	0.4
Crown Valley Parkway – Hillhurst Drive to Via Valle	27,425	29,317	30,909	32,801	73.5	73.8	74.0	74.2	0.3	0.8	0.3
Crown Valley Parkway – Club House Drive to Pacific Island Drive/Camino del Avion	24,231	25,934	27,275	28,978	74.1	74.4	74.6	74.8	0.3	0.8	0.3
Niguel Road – Crown Valley Parkway to La Hermosa Avenue	20,090	20,941	21,954	22,805	72.0	72.1	72.3	72.5	0.2	0.6	0.2
Pacific Coast Highway – Crown Valley Parkway to Niguel Road <sup>1</sup>	28,172	28,834	35,618	36,280	75.9	76.0	76.9	77.0	0.1	1.1	0.1

Source: Traffic data provided by LLG, 2021. Traffic noise modeled using the FHWA Traffic Noise Prediction Model methodology.

<sup>1</sup> Cumulative Noise Increase = 10\*Log (Future Plus Project/Existing No Project)

<sup>2</sup> Cumulative Noise increase due to Project = 10\*Log (Future Plus Project/ Future No Project).

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As shown in Table 5.11-8, roadway segments are estimated to experience a traffic noise increase of up to 0.6 dBA or less due to project-generated traffic. Traffic noise increases would not:

- Result in ambient exterior noise levels at nearby noise-sensitive uses to increase above the City exterior standards in Table 5.11-2 (i.e., 65 dB CNEL for residential land uses).
- Increase by 10 dBA CNEL or more at the nearest noise-sensitive land uses where the ambient baseline noise levels are below 55 dBA CNEL without the project.
- Increase by 5 dBA CNEL or more at the nearest noise-sensitive land uses where the ambient baseline without the project is in the range of 55 to 60 dBA CNEL.
- Increase by 3 dBA CNEL or more at the nearest noise-sensitive land uses where the ambient baseline noise levels are above 60 dBA CNEL without the project.

This would not exceed the City's CEQA Manual operational mobile noise thresholds. Therefore, impacts would be less than significant.

#### *Noise and Land Use Compatibility*

##### ***Residential 1***

The Laguna Niguel Land Use with Noise Standards table (Table N-9 in the General Plan Noise Element) identifies noise exterior environments up to 65 dBA CNEL as acceptable levels for residential, attached and detached, uses. Exterior ambient noise levels above 65 dBA CNEL would be considered unacceptable for new residential uses. The interior noise standard for residential uses is 45 dBA CNEL. Based on ambient noise monitoring and traffic noise modeling ambient noise levels at future onsite proposed residential uses are 70.1 dBA CNEL along Pacific Island Drive within 30 feet of the nearest travel lane and up to 74.6 dBA CNEL along Alicia Parkway within 50 feet from the nearest travel lane.

The proposed Residential 1 building would be within 50 feet of the nearest travel lane along Alicia Parkway, and therefore, above the acceptable land use compatibility standard of 65 dBA CNEL. Outdoor recreational areas would be fully shielded from the roadways by the residential building itself providing at least a 15 dBA CNEL noise reduction. Noise levels at the outdoor area (pool and courtyard) would be approximately 59.6 dBA CNEL, which is within the acceptable exterior residential noise and land use category (65 dBA CNEL or less).

Typical buildings provide an exterior-to-interior noise attenuation of 25 dBA with windows closed, and interior noise levels at Residential 1 are estimated to be 49.1 dBA CNEL. Therefore, without PPP N-4, the interior noise standard of 45 dBA CNEL could be exceeded, and the residential building would be in an area that exceeds the City's 65 dBA CNEL standard. With implementation of PPP N-4, impacts would be less than significant.

##### ***Residential 2***

Residential 2 buildings would be approximately 70 feet from the nearest travel lane along Pacific Island Drive. Ambient noise monitoring conducted at LT-1 indicates that existing ambient noise levels are 69 dBA CNEL at

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30 feet from the nearest travel lane along Pacific Island Drive. To estimate future noise levels along this roadway, the highest cumulative noise increase of 1.1 dBA CNEL in Table 5.11-8 is added to LT-1 for a projected future noise level of 70.1 dBA CNEL at 30 feet. At 70 feet, noise levels would be approximately 66.4 dBA CNEL at the nearest façade of Residential 2. This would place Residential 2 within the unacceptable (65 dBA CNEL or greater) noise and land use category. The outdoor pool and courtyard area, as shown in the site plans, would be partially shielded from roadways by the building itself and approximately 280 feet from Pacific Island Drive. Noise levels at the outdoor area (pool and courtyard) would be 60 dBA CNEL or less, which is within the acceptable exterior residential noise and land use category (65 dBA CNEL or less). However, since Residential 2 would be located within the unacceptable category at the nearest building façade, this indicates that interior noise levels could exceed 45 dBA CNEL. With implementation of PPP N-4, impacts would be less than significant.

***Level of Significance Before Mitigation:*** Less than significant.

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**Impact 5.11-2 Construction activities would not exceed the City's construction noise thresholds. [Threshold N-2]**

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Two types of short-term noise impacts could occur during construction: (1) mobile-source noise from transport of workers, material deliveries, and debris and soil haul and (2) stationary-source noise from use of construction equipment. Based on the Laguna Niguel Noise Ordinance (Division 6.6 of the Laguna Niguel Municipal Code), construction noise would be limited to 7:00 am to 8:00 pm on weekdays and Saturdays. No construction is allowed by the City on Sundays or federal holidays. Construction activities associated with the proposed project would occur during these designated hours, although workers may be onsite conducting non-noise-generating activities, such as office tasks, outside of those hours.

### Construction Vehicles

The transport of workers and materials to and from the construction site would incrementally increase noise levels along roadways in the vicinity of the project site. Individual construction vehicles pass-bys and haul truck trips may create momentary noise levels of up to approximately 85 dBA ( $L_{max}$ ) at 50 feet from the vehicle, but these occurrences would generally be infrequent and short lived.

Construction generates temporary worker and vendor trips that vary by activity phase. Overlapping phases are anticipated to generate 898 combined daily trips from workers and vendors.<sup>8</sup> Haul trips would range between 34 to 198 daily trips during soil and grading importing and exporting phases.<sup>9</sup> When compared to the tens of thousands of existing trips (Table 5.11-8), traffic noise increases due to temporary construction trips are estimated to result in less than 1 dBA CNEL.<sup>10</sup> Therefore, temporary construction vehicle noise would be less than significant.

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<sup>8</sup> Based on information provided by the applicant; see Appendix C, Table 5.2-9 and Table 5.2-10.

<sup>9</sup> Based on information provided by the applicant; see Appendix C.

<sup>10</sup> dBA CNEL increase calculated by  $10 \cdot \log((\text{new construction trips} + \text{existing daily trips}) / (\text{existing daily trips}))$ .

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#### Construction Equipment

Noise generated by on-site construction equipment is based on the type of equipment used, its location relative to sensitive receptors, and the timing and duration of noise-generating activities. Each phase of construction involves different types of equipment and has distinct noise characteristics. Noise levels from equipment noise source is typically the engine, although work-piece noise (such as dropping of materials) can also be audible.

The noise produced at each construction phase is estimated by combining the  $L_{eq}$  contributions from the simultaneous use of each piece of equipment modeled, while accounting for the ongoing time variations of noise emissions (commonly referred to as the usage factor). Heavy equipment, such as a dozer or a loader, can have maximum, short-duration noise levels of up to 85 dBA at 50 feet. However, overall noise emissions vary considerably, depending on what specific activity is being performed at any given moment.

Factors such as noise attenuation due to distance, the number and type of equipment, and the load and power requirements to accomplish tasks at each construction phase would result in different noise levels from construction activities at a given receptor. Since noise from construction equipment is intermittent and diminishes at a rate of at least 6 dBA per doubling distance (conservatively ignoring other attenuation effects from air absorption, ground effects, and shielding effects), the average noise levels at noise-sensitive receptors could vary considerably, because some construction equipment would move around the site with different loads and power requirements.

Construction noise levels at sensitive receptors are estimated by modeling the simultaneous use of at least one of each type of construction equipment per activity phase from the construction equipment list provided by the applicant (see Appendix C, AQ/GHG). Equipment is modeled using the RCNM. After modeling construction equipment per activity phase, including overlapping phases, the distances to various sensitive receptors are estimated using Google Earth. Estimating distances from various construction phases to various receptors is explained below, followed by Table 5.11-9 showing the results of construction noise modeling. Distances to sensitive receptors may differ between noise analysis and air quality analysis due to differences in the methodologies for analyzing noise emissions versus air quality and GHG emissions. See the descriptions below of the distances for noise for varying construction activity phases (also see Table 5.11-9).

#### *Demolition, Site Preparation, and Rough Grading Overlapping Phases*

Distances to the nearest sensitive receptors (residences to southwest) to the activity phases were measured from the approximate acoustical center of the project site to the nearest surrounding sensitive receptors, because these activities would occur throughout the entire site all in one phase.<sup>11</sup> The center of the site best represents average noise levels as denoted by the noise descriptor: Leq-time-average sound level. In addition, onsite rock crushing operations from demolition debris, would take place at the center of the site. The Roadway Construction Noise Model does not have reference noise levels for rock crushing equipment, however, it has

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<sup>11</sup> Overlapping site prep, rough grading; overlapping demolition, site preparation, and rough grading; overlapping site prep, rough grading, utility trenching; building construction (site preparation, rough grading, utility trenching, fine grading, paving; overlapping site preparation, rough grading; utilities trenching fine grading.

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been substituted with a mounted impact hammer in the modeling which generates noise levels equivalent to known rock crushing operations.

#### *Paving*

The project proposes various areas of paving throughout the project site, including parking lots and a parking structure for the retail and residential uses. Other paving would take place for the vehicular circulation component, but the majority of paving and paving noise would be in parking lots and the parking structure. Therefore, using Google Earth, the distances to the nearest receptors were estimated from the acoustical center of proposed parking lots and parking structure. For example, paving noise levels at receptors to the north were estimated by measuring the distance from the acoustical center of the proposed parking area for Residential 2 (the closest proposed paving area to those receptors), and the paving noise levels at receptors to the southeast were estimated by measuring the distance from the acoustical center of the proposed parking area to the south (where the soon-to-be demolished library is currently located).

#### *Building Construction*

The same approach used for paving was used to determine the distances from various sensitive receptors to building construction activity. The proposed project has various building construction components spread throughout the project site. Using Google Earth, the distances to the nearest receptors from each building construction component were estimated from the acoustical center of the proposed buildings.

#### *Demolition*

The same approach used for paving and building construction is used to determine the distances to various sensitive receptors to demolition activity. The project site has existing buildings spread throughout that are proposed to be demolished. Using Google Earth, the distances to the nearest receptors to each proposed building demolition were estimated from its acoustical center, with the exception of the accompanied rock crushing which is from the center as mentioned above in overlapping phases.

#### *Architectural Coating and Landscaping*

Because architectural coating, finishes, and landscaping occur on and around buildings, noise levels from these activity phases were estimated by determining the nearest receptor to a proposed building's façade and not acoustical center.

As shown in Table 5.11-9, construction noise would occur within 500 feet of a noise-sensitive receptor. Construction noise levels, however, would not exceed the City's construction noise threshold of 80 dBA  $L_{eq}$  at noise sensitive receptors. Therefore, impacts would be less than significant.

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**Table 5.11-9 Exterior Construction Noise Impacts at Nearby Sensitive Receptors**

Construction Phases	Sensitive Receptors			
	Residential Uses to West/Southwest	Residential Uses to Southeast	Residential/KinderCare to North	Laguna Niguel Presbyterian Church to North
	Estimated RCNM Noise Levels at Sensitive Receptors, dBA $L_{eq}$			
<i>Distance in feet</i>	550	800	750	900
Site Abatement	53	50	50	48
Overlapping Site Prep, Rough Grading	67	64	64	62
Overlapping Demolition rock crushing, Site Preparation, and Rough Grading <sup>3</sup>	70	67	67	66
Overlapping Site Prep, Rough Grading, Utility Trenching	67	64	64	63
Building Construction (SP, RG, UT, FG, Paving Overlap)	67	64	65	63
Overlapping Site Preparation, Rough Grading, Utilities Trenching, Fine Grading	67	64	64	62
Fine Grading	64	60	61	59
<i>Distance in feet</i>	180	260	230	540
Paving	75	72	73	66
<i>Distance in feet</i>	180	340	350	475
Building Construction	72	67	67	64
<i>Distance in feet</i>	125	200	200	300
Architectural Coating	66	62	62	58
Finishing/Landscaping	72	68	68	64
<i>Distance in feet</i>	245	270	NA	NA
Demolition (Library) <sup>1,2</sup>	73	72	-	-
<i>Distance in feet</i>	NA	NA	230	440
Demolition (Justice Support Buildings) <sup>1</sup>	-	-	74	68
<i>Distance in feet</i>	220	NA	635	NA
Demolition (Modular Buildings) <sup>1</sup>	74	-	65	-
<b>Exceeds 80 dBA <math>L_{eq}</math>?</b>	<b>No</b>	<b>No</b>	<b>No</b>	<b>No</b>
<b>Significant Impact?<sup>3</sup></b>	<b>No</b>	<b>No</b>	<b>No</b>	<b>No</b>

Notes: RCNM Software and attenuation due to distance calculations are included in Appendix J.

<sup>1</sup> RCNM Mounted Impact Hammer (hoe ram) equipment used as representative of crusher/crushing equipment.

<sup>2</sup> Based on available information, the library will be relocated to interim location prior to any construction activity, including demolition and grading.

**Level of Significance Before Mitigation:** Less than significant.

**Impact 5.11-3: The project would generate groundborne vibration or groundborne noise that would not exceed City's standards. [Threshold N-3]**

Potential vibration impacts associated with development projects are usually related to the use of heavy construction equipment during the demolition and grading phases of construction. Construction can generate

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varying degrees of ground vibration, depending on the construction procedures and equipment. Construction equipment generates vibrations that spread through the ground and diminish with distance from the source. The effect on buildings in the vicinity of the construction site depends on soil type, ground strata, and receptor-building construction. The effects from vibration can range from no perceptible effects at the lowest vibration levels, to low rumbling sounds and perceptible vibrations at moderate levels, to slight structural damage at the highest levels. Vibration from construction activities rarely reaches the levels that can damage structures.

#### Operational Vibration

There are no existing substantial sources of vibration in the project vicinity. For on-road trucks, Caltrans has studied the effects of propagation of vehicle vibration on sensitive land uses and notes that “heavy trucks, and quite frequently buses, generate the highest earthborn vibrations of normal traffic” (Caltrans 2013b). Caltrans further notes that the highest traffic-generated vibrations are along freeways and state routes. Their study finds that “vibrations measured on freeway shoulders (five meters from the centerline of the nearest lane) have never exceeded 0.08 inches per second, with the worst combinations of heavy trucks and poor roadway conditions (while such trucks were moving at freeway speeds). This level coincides with the maximum recommended safe level for ruins and ancient monuments (and historic buildings).” Additionally, the proposed project would not include any substantial long-term vibration sources such as subway or rail. Thus, no significant vibration effects from operations sources would occur.

#### Construction Vibration Building Damage

For reference, Caltrans uses a peak particle velocity of 0.3 in/sec PPV as the limit for older residential structures (i.e., surrounding residential structures conservatively assuming they are older), and a peak particle velocity of 0.5 in/sec PPV is used for engineered modern industrial/commercial buildings and new residential buildings (i.e., Laguna Niguel City Hall). Table 5.11-10 summarizes vibration levels published by the FTA for typical construction equipment at a reference distance of 25 feet and at the nearest structures. Typical construction equipment can generate vibration levels ranging up to 0.21 in/sec PPV at 25 feet. Pile driving is not proposed as part of the project.

**Table 5.11-10 Vibration Impact Levels for Typical Construction Equipment**

Equipment	in/sec PPV		
	Reference levels at 25 feet	Residences Vibration levels at 82 feet	City Hall Vibration levels at 100 feet
Vibratory Roller	0.21	0.035	0.026
Large Bulldozer	0.089	0.015	0.011
Caisson Drilling	0.089	0.015	0.011
Loaded Trucks	0.076	0.013	0.010
Jackhammer	0.035	0.006	0.004
Small Bulldozer	0.003	0.001	<0.001

Source: FTA 2018.

Note: Distances are measured from the nearest edge of the construction site to the nearest receptors.

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The nearest residences are approximately 82 feet from the nearest proposed project construction activities. At this distance, construction vibration would not exceed the threshold of 0.3 in/sec PPV for residential structures. City Hall is approximately 100 feet from the nearest proposed project construction activities at which distance construction vibration would not exceed the threshold of 0.5 in/sec PPV for modern/industrial buildings nor the 0.3 in/sec PPV older residential buildings. Since the nearest buildings are beyond the distance for potential architectural damage from project construction activities, impacts would be less than significant.

#### Groundborne Vibration Annoyance

Prolonged construction activities involving blasting pile driving, vibratory compaction, demolition, drilling, or heavy grading or excavation near sensitive receptors could result in a vibration annoyance. No rock blasting or pile driving is proposed, but the use of other heavy equipment is proposed for demolition, paving, site preparation, and grading. As shown in Table 5.11-7, the Caltrans criterion for a distinctly perceptible continuous vibration level is 0.04 in/sec PPV. Vibration annoyance is based on the human body response and because it takes time for the human body to respond to vibration signals an average vibration amplitude (the root-mean squared amplitude) is used, denoted by vibration decibel (VdB).<sup>12</sup> The FTA Guidance Manual (FTA 2018), which provides reference VdB levels for various construction equipment, is used to estimate VdB levels at the vibration sensitive receptors. When converted, a 0.04 in/sec PPV vibration level is equivalent to approximately 80 VdB.<sup>13</sup> The distances from vibration source (construction activity) to receiver (sensitive receptor) are the same ones used in the construction noise analysis above. Because vibration annoyance is concerned with human perception of average vibration and not instantaneous vibration for architectural damage, the distances to sensitive receptors are from the acoustic center of various construction phases. All phases that use heavy construction equipment that could cause a perceived vibration disturbance were modeled. The worst-case scenarios were building construction and paving, which could generate up to 68 VdB at the nearest sensitive receptors. Detailed modeling of four complete scenarios can be found in Appendix G. Vibration annoyance levels would not exceed the 80 VdB/0.04 in/sec PPV threshold. Therefore, impacts would be less than significant.

*Level of Significance Before Mitigation:* Less than significant.

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#### Impact 5.11-4: The proximity of the project site to an airport or airstrip would not result in exposure of future residents or workers to excessive airport-related noise. [Threshold N-4]

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There are no airports or private airstrips within two miles of the proposed project, and the project site is not within an airport land use plan.

*Level of Significance Before Mitigation:* No impact.

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<sup>12</sup> RMS velocity in decibels, VdB re 1 micro-in/sec.

<sup>13</sup> The ratio of PPV to maximum rms amplitude is defined as the *crest factor* for the signal. The crest factor is always greater than 1.71. For groundborne vibration the crest factor is usually 4 to 5.

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#### 5.11.5 Cumulative Impacts

##### Cumulative Operational Impact

A cumulative traffic noise increase would be considered significant if the cumulative noise increase was found to be potentially significant and the project's contribution to the cumulative increase is greater than 1 dBA CNEL. As shown in Table 5.11-8, the cumulative traffic noise would increase up to 1.1 dBA in an ambient noise environment of 75.9 dBA CNEL. This would not exceed the 3 dBA CNEL threshold when the ambient baseline noise level is above 60 dBA CNEL without the project. The project's contribution to cumulative traffic noise increase would be up to 0.5 dBA. Therefore, cumulative traffic noise impacts would be less than significant.

Stationary onsite operational noise would elevate existing ambient noise levels, but not to a significant level as discussed above. As stated in Chapter 4, *Environmental Setting*, of this DEIR, the proposed project is surrounded by existing residential and retail/commercial development. The immediate surrounding land uses are built-out with the nearest commercial and retail uses located across Alicia Parkway and Pacific Island Drive away from nearby residences. Since stationary noise is highly localized and because the closest commercial and retail uses are located away from nearby off-site sensitive receptors, cumulative operational stationary noise impacts would be less than significant.

##### Cumulative Construction Noise and Vibration

Cumulative construction impacts could occur if other projects are being constructed in the vicinity of the proposed project at the same time. The nearest cumulative project is the proposed Cove at El Niguel, approximately 1,600 feet (0.3-mile) to the south (LLG 2021). All other planned and approved cumulative projects are even farther. At 1,600 feet, construction noise would substantially attenuate. Considering most construction equipment does not generate noise levels greater than 85 dBA at a distance of 50 feet, at 1,600 feet, noise levels would attenuate to 55 dBA from distance alone (not considering additional attenuation provided by topography and existing developments). Cumulative construction noise would not exceed the City's construction noise threshold of 80 dBA  $L_{eq}$ . Therefore, cumulative construction impacts would be less than significant.

#### 5.11.6 Level of Significance Before Mitigation

The following impacts would be less than significant: 5.11-1, 5.11-2, 5.11-3 and 5.11-4.

#### 5.11.7 Mitigation Measures

Noise and vibration impacts from implementation of the project would be less than significant and no mitigation measures are required.



## 5. Environmental Analysis NOISE

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## 5. Environmental Analysis

### 5.12 POPULATION AND HOUSING

This section of the Draft Environmental Impact Report (DEIR) examines the potential for socioeconomic impacts of the proposed Laguna Niguel City Center Mixed Use Project (proposed project) on the City of Laguna Niguel (City), including changes in population, employment, and demand for housing, particularly housing cost/rent ranges defined as “affordable.”

#### 5.12.1 Environmental Setting

##### 5.12.1.1 REGULATORY BACKGROUND

###### State

###### *California Housing Element Law*

California planning and zoning law requires each city and county to adopt a General Plan for future growth (California Government Code § 65300). This plan must include a housing element that identifies housing needs for all economic segments and provides opportunities for housing development to meet that need. At the state level, the Housing and Community Development Department (HCD) estimates the relative share of California’s projected population growth that would occur in each county based on California Department of Finance population projections and historical growth trends. These figures are compiled by HCD in a Regional Housing Needs Assessment (RHNA) for each region of California. Where there is a regional council of governments, the HCD provides the RHNA to the council. The council then assigns a share of the regional housing need to each of its cities and counties. The process of assigning shares gives cities and counties the opportunity to comment on the proposed allocations. The HCD oversees the process to ensure that the council of governments distributes its share of the state’s projected housing need.

State law recognizes the vital role local governments play in the supply and affordability of housing. To that end, California Government Code requires that the housing element achieve the following goals:

- Identify actions that will be taken to make sites available during the planning period with appropriate zoning and development standards and with services and facilities to accommodate that portion of the city’s or county’s share of the regional housing need for each income level that could not be accommodated on sites identified in the inventory completed.
- Assist in the development of adequate housing to meet the needs of extremely low, very low, low and moderate income households.
- Address and, where appropriate and legally possible, remove governmental and nongovernmental constraints to the maintenance, improvement, and development of housing, including housing for all income levels and housing for persons with disabilities.
- Conserve and improve the condition of the existing affordable housing stock, which may include addressing ways to mitigate the loss of dwelling units demolished by public or private action.

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### POPULATION AND HOUSING

- Promote and affirmatively further fair housing opportunities and promote housing throughout the community or communities for all persons regardless of race, religion, sex, marital status, ancestry, national origin, color, familial status, disability, and other characteristics protected by the California Fair Employment and Housing Act, Section 65008 (Part 2.8 (commencing with Section 12900) of Division 3 of Title 2), and any other state and federal fair housing and planning law.
- Preserve assisted housing developments for lower income households.
- Develop a plan that incentivizes and promotes the creation of accessory dwelling units that can be offered at affordable rent for very low, low, or moderate-income households.
- Include an identification of the agencies and officials responsible for the implementation of the various actions and the means by which consistency will be achieved with other general plan elements and community goals.
- Include a diligent effort by the local government to achieve public participation of all economic segments of the community in the development of the housing element, and the program shall describe this effort.
- Affirmatively further fair housing in accordance with Chapter 15 (commencing with Section 8899.50) of Division 1 of Title 2. (California Government Code Section 65583)

California housing element laws (Government Code Sections 65580 to 65589) require that each city and county identify and analyze existing and projected housing needs in its jurisdiction and prepare goals, policies, and programs to further the development, improvement, and preservation of housing for all economic segments of the community, commensurate with local housing needs.

#### *Housing Accountability Act*

The Housing Accountability Act (HAA) requires that cities approve applications for residential development that are consistent with a city's general plan and zoning code development standards without reducing the proposed density. Under the HAA, an applicant is entitled to the full density allowed by the zoning and/or general plan provided the project complies with all objective general plan, zoning, and subdivision standards and provided that the full density proposed does not result in a specific, adverse impact on public health and safety and cannot be mitigated in any other way. (Objective standards are measurable and have clear criteria that are determined in advance, such as numerical setback, height limit, universal design, lot coverage requirement, or parking requirement.)

#### *Amendment to the Housing Accountability Act*

Assembly Bill (AB) 678 amends the HAA by increasing the documentation and standard of proof required for a local agency to legally defend its denial of low- to moderate-income housing development projects. If the local agency considers the housing development project to be inconsistent, not in compliance, or not in conformity with objective, written applicable standards, ordinances, plans, policies, or programs, AB 678 requires that, within a specific time period, the local agency provide the applicant with written documentation of its reasons. If the local agency fails to provide this, AB 678 deems the housing development project

## 5. Environmental Analysis POPULATION AND HOUSING

consistent, compliant, and in conformity with the applicable plan, program, policy, ordinance, standard, requirement, or other provision.

### ***AB 1515, Reasonable Person Standard***

AB 1515 added additional findings related to the HAA. It specifies that a housing development project is deemed consistent, compliant, and in conformity with an applicable plan, program, policy, ordinance, standard, requirement, or similar provision if there is substantial evidence that would allow a reasonable person to conclude that the housing development project or emergency shelter is consistent, compliant, or in conformity.

### ***SB 330, Housing Crisis Act of 2019***

Among other changes that promote housing, the Housing Crisis Act of 2019 strengthened the HAA, which states that a housing development project that complies with the objective standards of the General Plan and Zoning Ordinance must be approved by the City, unless the City is able to make written findings based on the preponderance of the evidence in the record that either: (1) the City has already met its Regional Housing Needs Assessment (RHNA) requirement; (2) there is an impact to the public health and safety and this impact cannot be mitigated; (3) the property is agricultural land; (4) approval of the project would violate State or Federal law and this violation cannot be mitigated; or (5) the project is inconsistent with the zoning and land use designation and not identified in the General Plan Housing Element RHNA inventory.

## **Regional**

### ***Southern California Association of Governments***

The Southern California Association of Governments (SCAG) represents Imperial, Los Angeles, Orange, Riverside, San Bernardino, and Ventura counties. It is a regional planning agency and serves as a forum for addressing regional issues concerning transportation, the economy, community development, and the environment.

### ***Regional Transportation Plan/Sustainable Communities Strategy***

On September 13, 2020, SCAG adopted the 2020-2045 Regional Transportation Plan/Sustainable Communities Strategy (RTP/SCS), also known as Connect SoCal. The RTP/SCS is a long-range visioning plan that balances future mobility and housing needs with economic, environmental and public health goals. This long-range plan, which is a requirement of the state of California and the federal government, is updated by SCAG every four years as demographic, economic, and policy circumstances change. Connect SoCal embodies a collective vision for the region's future and is developed with input from local governments, county transportation commissions, tribal governments, nonprofit organizations, businesses, and local stakeholders. The 2020-2045 RTP/SCS includes growth forecasts that estimate employment, population, and housing growth. These estimates are used by SCAG, transportation agencies, and local agencies to anticipate and plan for growth. Connect SoCal works to address residents' challenges by promoting job accessibility, enabling shorter commutes, making communities safer and encouraging lower-cost housing developments. One of the key goals is to encourage development of diverse housing types in areas that are supported by multiple transportation options.

## 5. Environmental Analysis POPULATION AND HOUSING

### Local

Development of housing in the City is guided by the goals, objectives, and policies of the general plan and housing element. A Housing Element is a local plan adopted by the City that includes goals, policies, and programs that direct decision making around housing. State law requires that Housing Elements be updated on 8-year “cycles.” The City is currently preparing a Housing Element update for the 2021-2029 planning period, which is referred to as the “6th Housing Element cycle” in reference to the six required updates that have occurred since the comprehensive revision to State Housing Element law in 1980.

#### 5.12.1.2 EXISTING CONDITIONS

##### Population

The population of the City and Orange County (for comparison purposes) from the 2000, 2010 and 2020 US Census are shown in Table 5.12-1. Note that the population growth percentage in Laguna Niguel between 2000 and 2020—2.15 percent—was substantially less than the corresponding growth rate for Orange County—12.0 percent.

**Table 5.12-1 City of Laguna Niguel and Orange County Population, 2000–2020**

	2000	2010	2020	Change 2000–2020	Percent Change 2000–2020
City of Laguna Niguel	63,002	62,979	64,355	2,189	2.15%
Orange County	2,846,289	3,010,232	3,186,989	17,675,775	12.0%

Sources: US Census 2020.

##### Population Forecast

Taking into account a combination of recent and past trends, technical assumptions, and local or regional growth policies, SCAG is able to generate regional growth forecasts for counties and their cities. SCAG’s growth forecasts for 2016 and 2045 for Laguna Niguel and Orange County are shown in Table 5.12-2. SCAG’s forecasts show the City growing at a similar pace to the rest of Orange County. Note also that the population of Laguna Niguel is forecast to grow notably faster between 2016 and 2045 than it did between 2000 and 2020 (see Table 5.12-1).

**Table 5.12-2 Population Forecast, City of Laguna Niguel and Orange County**

	2016	2045	Change 2016-2045	Percent Change 2016-2045
City of Laguna Niguel	66,100	69,700	3,600	5.5%
Orange County	3,180,000	3,535,000	267,000	8.2%

Source: SCAG 2020a.

## 5. Environmental Analysis

### POPULATION AND HOUSING

#### Housing

Estimated available housing, including unit type characteristics, in Laguna Niguel and Orange County for the year 2020 is detailed in Table 5.12-3.

**Table 5.12-3 Housing Units, City of Laguna Niguel and Orange County**

Housing Unit Type	City of Laguna Niguel	Orange County
Single-Family Detached	14,524	558,523
Single-Family Attached	5,110	133,885
Multifamily	7,092	393,037
Mobile Homes	48	33,526
<b>Total</b>	<b>26,774</b>	<b>1,118,971</b>
Average Household Size	2.56	2.94
Vacancy Rate	5.6%	5.4%

Source: DOF 2021.

#### *Regional Housing Needs Assessment*

The RHNA is mandated by State housing law as part of the periodic process of updating housing elements of local general plans. State law requires that housing elements identify RHNA targets set by HCD to encourage each jurisdiction in the state to provide its fair share of very low, low, moderate, and above moderate income housing. The RHNA does not promote growth but provides a long-term outline for housing in the context of local and regional trends and housing production goals.

SCAG determines total housing need for each community in southern California based on three general factors: 1) the number of housing units needed to accommodate future population and employment growth; 2) the number of additional units needed to allow for housing vacancies; and 3) the number of very low, low, moderate, and above moderate income housing units needed in the community. Additional factors used to determine the RHNA include tenure, the average rate of units needed to replace housing units demolished, and other factors.

The 6<sup>th</sup> Cycle Final RHNA Allocation Plan was adopted by SCAG on March 4, 2021 and Updated July 1, 2021. The City's RHNA allocation for the 2021–2029 period is shown in Table 5.12-4. The City is required to ensure that sufficient sites are planned and zoned for housing to accommodate its need, and to implement proactive programs that facilitate and encourage the production of housing commensurate with its housing needs.

## 5. Environmental Analysis POPULATION AND HOUSING

**Table 5.12-4 City of Laguna Niguel RHNA Allocation, 2021-2029**

Household Income Category	Target (Units)
Extremely Low + Very Low	348
Low	202
Moderate	223
Above Moderate	434
<b>Total</b>	<b>1,207</b>

Source: SCAG 2021.

### *Housing Forecast*

SCAG forecasts that the number of households in Laguna Niguel will increase by 1,400 units between 2016 and 2045, as shown in Table 5.12-5. Household forecasts for Orange County are provided as a comparison.

**Table 5.12-5 Households Forecast, City of Laguna Niguel and Orange County**

	2016	2045	Change 2016-2045	Percent Change 2016-2045
City of Laguna Niguel	24,800	26,200	1,400	5.7%
Orange County	1,025,000	1,154,000	129,000	12.6%

Source: SCAG 2020b.

## Employment

### *Employment Projections*

SCAG forecasts that employment in Laguna Niguel will increase 13.2 percent between 2016 and 2045, as shown in Table 5.12-6 below. Employment projections for Orange County are provided as a comparison.

**Table 5.12-6 Employment Projections, City of Laguna Niguel and Orange County**

	2016	2045	Change 2016-2045	Percent Change, 2016-2045
City of Laguna Niguel	19,600	22,200	2,600	13.2%
Orange County	1,710,200	1,980,500	270,300	16.9%

Source: SCAG 2020b.



## 5. Environmental Analysis POPULATION AND HOUSING

### Jobs-Housing Balance

The jobs-housing ratio is a general measure of the total number of jobs and housing units in a defined geographic area without regard to economic constraints or individual preferences. The balance of jobs and housing in an area—in terms of the total number of jobs and housing units as well as the types of jobs versus the price of housing—has implications for mobility, air quality, and the distribution of tax revenues. The jobs-housing ratio is one indicator of the project’s effect on growth and quality of life in the project area.

SCAG applies the jobs-housing ratio at the regional and subregional levels to analyze the fit between jobs, housing, and infrastructure. A major focus of SCAG’s regional planning efforts has been to improve this balance. Jobs-housing goals and ratios are advisory only. No ideal jobs-housing ratio is adopted in state, regional, or city policies. The American Planning Association (APA) is an authoritative resource for community planning best practices, including recommendations for assessing jobs-housing ratios. Although the APA recognizes that an ideal jobs-housing ratio will vary from jurisdiction to jurisdiction, its recommended target for an appropriate jobs-housing ratio is 1.5, with a recommended range of 1.3 to 1.7 (Weltz 2003).

As shown in Table 5.12-7, the City is “housing rich” with a jobs-housing ratio substantially lower than the recommended target and much lower than Orange County. The jobs-housing ratio in Laguna Niguel is forecast to remain relatively the same between 2016 and 2045, between 0.73 and 0.71. The jobs-housing ratio in Orange County is estimated to decrease slightly from 1.70 to 1.68 during the same period and would remain a healthy balance.

**Table 5.12-7 Jobs-Housing Balance**

	Year	Employment	Households	Jobs-Housing Ratio
Laguna Niguel	2016	18,300	24,800	0.73
	2045	18,800	26,200	0.71
Orange County	2016	1,710,200	1,025,000	1.67
	2045	1,980,500	1,154,000	1.72

Source: SCAG 2021.

### 5.12.2 Thresholds of Significance

According to Appendix G of the CEQA Guidelines and the City’s CEQA Manual, a project would normally have a significant effect on the environment if the project would:

- P-1 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).
- P-2 Displace substantial numbers of existing people or housing, necessitating the construction of replacement housing elsewhere.

## 5. Environmental Analysis

### POPULATION AND HOUSING

#### 5.12.3 Plans, Programs, and Policies

The Laguna Niguel General Plan includes the following goals and policies on population, growth and housing:

##### *2013 – 2021 Housing Element<sup>1</sup>*

- **Goal 1:** Provide a diversity of housing opportunities that satisfy the physical, social, and economic needs of existing and future residents of Laguna Niguel.
  - **Policy 1.1.** Ensure that housing is safe and sanitary with adequate public services to accommodate the needs of City residents.
  - **Policy 1.3.** Promote a variety of housing opportunities that accommodate the needs of all income levels of the population.
- **Goal 2:** Maintain equal housing opportunities for all residents in Laguna Niguel.
  - **Policy 2.1.** Support actions to reduce regulatory constraints which impede equal housing opportunities.

The Laguna Niguel Housing Element, Chapter 5 Housing Plan addresses the issues identified in the Housing Element and provides six specific programs with strategies and action items to achieve the City's housing goals and policies.

#### 5.12.4 Environmental Impacts

##### 5.12.4.1 IMPACT ANALYSIS

The following impact analysis addresses thresholds of significance. The applicable thresholds are identified in brackets after the impact statement.

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**Impact 5.12-1: The proposed project would not induce substantial unplanned population growth directly or indirectly. [Threshold P-1]**

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At full buildout, the proposed project would include 158,581 square feet of new commercial space (including restaurant, retail and office) and 275 apartment units. The existing approximately 14,400 square foot library would be replaced by a larger library (approximately 16,290 square feet). The dwelling units would include a mix of one-bedroom, two-bedroom, and three-bedroom units. The residential component of the proposed project would generate direct population growth, and the commercial component of the proposed project has the potential to generate indirect population growth.

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<sup>1</sup> The City updated the Housing Element for the 2021-2029 planning period. The City's 2021-2029 Housing Element was approved by City Council (Reso 2021-1372) in October 2021. The 2021-2029 Housing Element was forwarded to the California Department of Housing and Community Development (HCD) and is pending certification. The 2021-2029 Housing Element does not include changes that would alter the impact analysis conclusions presented in this EIR.

## 5. Environmental Analysis POPULATION AND HOUSING

### Direct Population Growth

The current zoning and general plan designations for the project site do not allow residential uses, and the proposed project would require a General Plan Amendment and new zoning to allow multifamily residential development.

The proposed project would develop 275 dwelling units. Assuming an average of 2.56 residents per dwelling unit (DOF 2021)<sup>2</sup> the project would generate 704 new residents. Table 5.12-8 shows the proposed project's contribution to housing and population in the city and county. As shown in Table 5.12-8, the proposed project's population and housing contribution is well within SCAG's RTP/SCS's projected growth for both Laguna Niguel and Orange County. The estimated population growth in the City due to project buildout would represent approximately 20 percent of the expected growth. Although representing a substantial portion of the projected future growth, it is not considered a significant impact when considering that the City has planned for growth in this area. As with the population projections, the 275 new dwelling units would represent approximately 20 percent of the forecast housing growth of 1,400 units anticipated by 2045 for the City (see Table 5.12-5). Thus, the project would also be within SCAG's projected housing growth.

**Table 5.12-8 Proposed Project's Population and Housing Contribution**

	2016	Future (2045)	Project	2016 + Project	Remaining to Future (2045)
<b>City of Laguna Niguel</b>					
Population	66,100	69,700	704	66,804	2,896
Housing	24,800	26,200	275	25,075	1,125
<b>Orange County</b>					
Population	3,180,000	3,535,000	704	3,180,704	354,296
Housing	1,025,000	1,154,000	275	1,025,275	128,725

Sources: SCAG 2020a,b

### Jobs-Housing Balance

The proposed project includes approximately 174,851 square feet of new commercial space (including the new library), which includes restaurant, retail, library, medical office, and general office uses. Table 5.12-9 summarizes the different types of commercial uses and the number of employees each use would be expected to generate. It is anticipated that the project would create both full-time and part-time job opportunities and that positions would be filled by people within the local area/region. Future employees of the project would likely be a mix of currently unemployed people and individuals moving from existing jobs. Employee generation for the project would be within SCAG's planning projections for the City. The project would contribute toward the attainment of regional goals and policies to encourage mixed-use development and walkable communities.

<sup>2</sup> The Department of Finance (DOF) residents per dwelling unit figure is a City-wide average and conservative for this project since no conventional single family homes are being proposed.

## 5. Environmental Analysis

### POPULATION AND HOUSING

**Table 5.12-9 Proposed Project Employee Generation**

	Square Footage	Generation Rate	Estimated Net Increase in Employees
Fast Casual Restaurant	17,355	271 sf / employee	64 employees
Quality Restaurant	8,650	434 sf / employee	20 employees
High-Turnover Restaurant	16,765	271 sf / employee	62 employees
Shopping Center	34,340	761 sf / employee	45 employees
Library	16,290	500 sf / employee	0 employees <sup>3</sup>
Medical Office	20,854	549 sf / employee	38 employees
Office	60,597	332 sf / employee	183 employees
<b>Total</b>	<b>174,851</b>	<b>--</b>	<b>412 employees</b>

Source: PlaceWorks 2021; U.S. Census Bureau 2018.

Notes: sf = square feet

The jobs-housing ratio is a general measure of the number of jobs versus housing in a defined geographical area. The recommended target is 1.5, with a range of 1.3 to 1.7 (Weltz 2003). As shown in Table 5.12-7, the City of Laguna Niguel is “housing rich” and at 0.73 jobs/housing unit is currently well below the range. Orange County is job-rich and at the very high end of the recommended range for jobs-housing ratio both currently and in the future. The proposed project’s addition of 275 units and 412 jobs would be expected to nominally, but beneficially, affect the City’s jobs-housing balance.

#### *Indirect Population Growth*

The project would involve development in an urban area on a site with established infrastructure systems and would not require additional infrastructure related to water, wastewater, or solid waste beyond what is needed to serve the project. The project would not expand capacity of any utilities. Project development would not require the extension of any roadways. Roadway improvements as described in Chapter 3.0 *Project Description*, would improve site area circulation and safety, but would not increase the capacity of the existing transportation network. The project would not indirectly induce population growth.

#### *Planned Growth*

The City has long planned for growth on the project site. The General Plan designates the project site as part of Community Profile Area 14 and anticipated the addition of up to 217,800 square feet of office and 130,680 square feet of community commercial on the project site. The project would reduce the commercial square footage and add 275 residential units, but as noted above, these units respond to anticipated housing growth demand and would not induce new, unplanned growth.

Overall impacts related to unplanned growth would be less than significant.

<sup>3</sup> The current library will increase in size, but no additional employees are necessary.

## 5. Environmental Analysis POPULATION AND HOUSING

*Level of Significance Before Mitigation:* Less than significant impact.

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**Impact 5.12-2: Project implementation would not result in displacing people and/or housing or necessitate the construction of replacement housing elsewhere. [Threshold P-2]**

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The project site is approximately 25 acres, and about half of that is undeveloped. The other half is developed with a county maintenance yard, South County Justice Center (closed in 2008), former fire station, current fire station (OCFA Station No. 5) and the Laguna Niguel Library. No dwelling units or residents currently occupy the site. Thus, the proposed project would not displace housing or people. No impact would occur.

*Level of Significance Before Mitigation:* No impact.

### 5.12.5 Cumulative Impacts

#### Population and Housing

All residential projects would directly contribute to population growth in the area, and nonresidential development would indirectly contribute to population growth in the project area. Of the related projects in Table 4-1, 14 projects include residential components that would introduce 3,599 residential units.<sup>4</sup> With an average household size of 2.56, the proposed project and the cumulative projects would contribute approximately 9,917 new residents to the project area, which includes the cities of Laguna Niguel, San Juan Capistrano, Dana Point, Aliso Viejo, and Laguna Hills. Only five of the 14 residential projects are in Laguna Niguel and would add dwelling units to the City, similar to the proposed project. These 5 cumulative projects would contribute 911 residential units and generate approximately 2,332 residents. Based on the projections shown in Table 5.12-8, the proposed project combined with the five cumulative projects in Laguna Niguel are within the anticipated population and housing growth for the City.

### 5.12.6 Level of Significance Before Mitigation

Impacts 5.12-1 and 5.12-2 are less than significant prior to mitigation.

### 5.12.7 Mitigation Measures

No mitigation measures are required

### 5.12.8 Level of Significance After Mitigation

Impacts would be less than significant.

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<sup>4</sup> Cumulative Project #27 is excluded from the total number reported because it is a student dormitory project and is not expected to contribute to long-term population growth.

## 5. Environmental Analysis

### POPULATION AND HOUSING

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## 5. Environmental Analysis

### 5.13 PUBLIC SERVICES

This section of the Draft Environmental Impact Report (DEIR) evaluates the potential impacts to fire protection and emergency services, police protection, school services, and library services in the City of Laguna Niguel (City) from implementation of the Laguna Niguel City Center Mixed Use Project (proposed project). Park services are addressed in Section 5.14, *Recreation*. Public and private utilities and service systems, including water, wastewater, and solid waste services and systems, are addressed in Section 5.17, *Utilities and Service Systems*.

#### 5.13.1 Fire Protection and Emergency Services

##### 5.13.1.1 ENVIRONMENTAL SETTING

###### Regulatory Background

###### *International Fire Code*

The International Fire Code includes specialized technical fire and life safety regulations that apply to the construction and maintenance of buildings and land uses. Topics addressed in the code include fire department access, fire hydrants, automatic sprinkler systems, fire alarm systems, fire and explosion hazards safety, hazardous materials storage and use, provisions intended to protect and assist fire responders, industrial processes, and many other general and specialized fire safety requirements for new and existing buildings.

###### *State*

###### *California Health and Safety Code*

State fire regulations include regulations for building standards (also in the California Building Code), fire protection and notification systems, fire protection devices such as extinguishers and smoke alarms, high-rise building and childcare facility standards, and fire suppression training (California Health and Safety Code Sections 13000 et seq.).

###### *California Fire Code*

The California Fire Code (CFC) is based on the 2018 International Fire Code and includes amendments from the State of California fully integrated into the code (California Code of Regulations [CCR] Title 24, Part 9). The CFC contains fire-safety-related building standards that are referenced in other parts of CCR Title 24. The CFC is updated once every three years, and the 2019 CFC took effect on January 1, 2020.

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#### *Local*

##### *Laguna Niguel Municipal Code*

The Laguna Niguel Municipal Code identifies land use categories, development standards, and other general provisions that ensure consistency between the Laguna Niguel General Plan and proposed development projects. Division 3 Sec. 11-3-1 adopts the 2019 California Fire Code and the 2018 International Fire Code.

##### *Laguna Niguel Emergency Management Plan*

The emergency management plan provides guidance for Laguna Niguel's response to extraordinary emergency situations during natural disasters, technological incidents, and national security emergencies. This plan determines the actions to be taken by the City to prevent disasters where possible, reduce the vulnerability of residents, protect citizens from the effects of disasters, respond effectively to actual disasters, and provide for recovery in the aftermath of an emergency.

##### *Laguna Niguel General Plan - Public Facilities Element*

The following goals and policies of the Public Facilities Element are related to fire protection services and apply to the proposed project.

- **Goal 4:** A community that is protected from the hazards of fire.
- **Policy 4.1.** Cooperate with the County of Orange to ensure that adequate facilities and fire service personnel are maintained to provide acceptable levels of service.
- **Policy 4.2.** Require all buildings located within the City to adhere to fire safety codes.
- **Policy 4.3.** Enforce fire inspection, code compliance, and weed abatement programs.
- **Policy 4.4.** Establish requirements for fire-resistant roofing materials for areas subject to wildland fire hazards.

#### **Existing Conditions**

The City partners with the Orange County Fire Authority (OCFA) for fire and emergency medical services. OCFA is a joint powers authority, which enables multiple cities to contract its services under Section 6502 of the California Government Code. This authority protects over 1.5 million residents via 71 fire stations throughout Orange County. OCFA provides comprehensive emergency services to the residents of Laguna Niguel through a regional approach. Laguna Niguel is part of OCFA's Division 3 and Division 5, which encompasses the southern and eastern areas of Orange County.

OCFA is an "all risk" emergency response provider. It primarily responds to medical and fire emergencies, but also to a wide range of other emergencies, such as hazardous materials spills, floods, water rescues, earthquakes, bomb threats, terrorism, etc.



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### Stations, Equipment, and Staffing

OCFA has three stations in Laguna Niguel, and each station's community service area encompasses its immediate geographical area. In total, OCFA's Laguna Niguel stations are staffed with 36 full-time employees, including 9 fire captains, 9 engineers, 12 firefighters, and 6 firefighter paramedics (Contreras 2020). Appendix K to this DEIR contains the responses from OCFA regarding stations, staff, and response times. The three stations are listed in Table 5.13-1 and shown on Figure 5.13-1, *Public Services*.

**Table 5.13-1 OCFA Stations Serving the Project Site**

Station	Location	Distance to Project Site	Equipment	Total Staffing	Daily Staffing
OCFA Station 5	23600 Pacific Island Drive	Adjacent to northern project boundary	Fire Engine E5/E105 (cross-staffed)	3 Fire Captains 3 Engineers 6 Firefighter Paramedics	1 Fire Captain 1 Engineer 2 Firefighter Paramedics
OCFA Station 39	24241 Avila Road	2.8 miles	Fire Engine E39/E339 (cross-staffed)	3 Fire Captains 3 Engineer Paramedics 3 Firefighter Paramedics 3 Firefighters	1 Fire Captain 1 Engineer Paramedic 1 Firefighter Paramedic 1 Firefighter
OCFA Station 49	31461 Golden Lantern	2.2 miles	Fire Truck T49	3 Fire Captains 3 Engineers 6 Firefighter Paramedics	1 Fire Captain 1 Engineer 2 Firefighter Paramedics

Source: Contreras 2020.

OCFA is also currently exploring locations for an additional fire station in Laguna Woods, which could allow for more resources availability in Laguna Niguel once in operation.

### Response Times

OCFA's response time objectives for emergency incidents and nonemergency incidents in Laguna Niguel are based on OCFA's adopted performance standards, shown in Table 5.13-2.

**Table 5.13-2 OCFA Adopted Performance Standards**

Activity / Incident Type	80 Percent Goal (from receipt of call to arrival on-site)
First Response Unit	7 minutes and 20 seconds
First Engine Truck STR	7 minutes and 20 second
First Truck	12 minutes
First Basic Life Support (BLS) Response Unit	7 minutes and 20 seconds
First Advanced Life Support (ALS) Response Unit	10 minutes and 0 seconds
First Paramedic Assessment	7 minutes and 20 seconds

Source: Contreras 2020.

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Currently, the citywide average response time for emergency and nonemergency incidents is 7 minutes and 15 seconds. OCFA concludes that there are no major deficiencies in the level of fire protection services in Laguna Niguel (Contreras 2020; Appendix K of this DEIR).

#### *Funding*

Funding for OCFA services in Laguna Niguel comes primarily from the City's general fund. Laguna Niguel is also a Structural Fire Fund member city of OCFA and pays for emergency services by a direct allocation of property tax revenue (OCFA 2021).

All developments in the City are required to enter into a secured fire protection agreement with OCFA to allow OCFA to address potential impacts of projects on fire services around the project area. In this agreement, the developer is assessed \$60 per dwelling/equivalent-dwelling unit. Equivalent dwelling unit is calculated by dividing square footage by 1,000 and multiplying the result by 0.09 (Contreras 2020; Appendix K to this DEIR).

#### **5.13.1.2 THRESHOLDS OF SIGNIFICANCE**

According to Appendix G of the CEQA Guidelines and the City's CEQA Manual, a project would normally have a significant effect on the environment if the project would:

FP-1 Result in a substantial adverse physical impact associated with the provisions 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 fire protection services.

#### **5.13.1.3 PLANS, PROGRAMS, AND POLICIES**

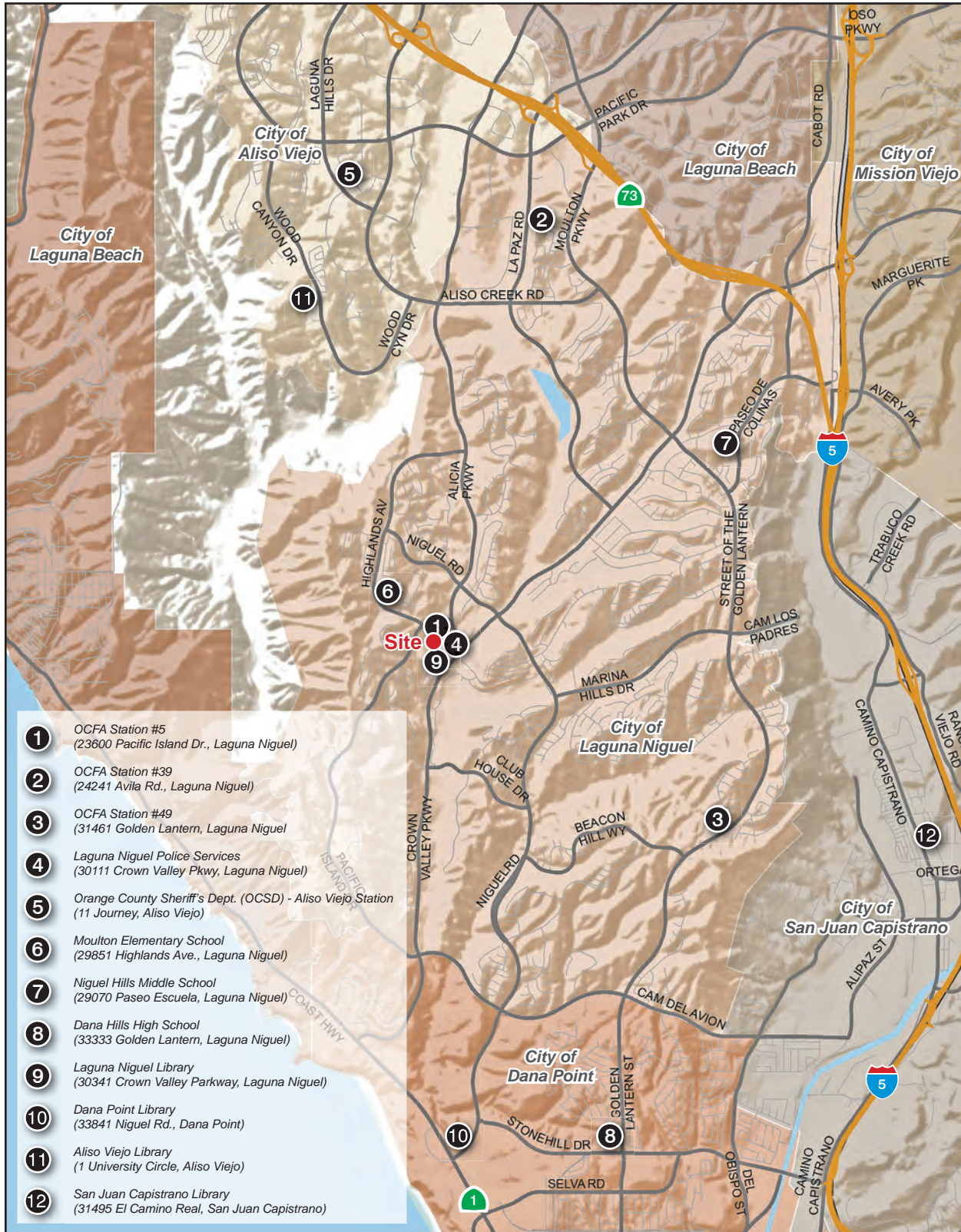
PPP FP-1 The proposed project shall be developed in accordance with the Laguna Niguel Municipal Code, Division 3 Sec. 11-3-1.

#### **5.13.1.4 ENVIRONMENTAL IMPACTS**

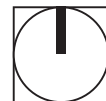
##### **Methodology**

PlaceWorks staff submitted service information requests and a corresponding service questionnaire to the OCFA on December 16, 2019, to document the current fire facilities in the area and assess and identify potential impacts created by the proposed project. A response from OCFA was received on January 16, 2020, and is included in Appendix K to this DEIR.

Figure 5.13-1 - Public Services  
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Note: Unincorporated county areas shown in white.



Source: USGS, NOAA, 2016

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### **PUBLIC SERVICES**

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### Impact Analysis

The following impact analysis addresses thresholds of significance. The applicable thresholds are identified in brackets after the impact statement.

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**Impact 5.13-1: The project would not result in a substantial adverse physical impact associated with the provisions 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 fire protection services. [Threshold FP-1]**

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Development of the project would increase residents and employees on the project site, and thus would be expected to increase demand for fire protection services. The project proposes 275 multifamily residential units. As discussed in Section 5.12, *Population and Housing*, the 275 residential units would introduce approximately 704 residents to the project site and the City. It is conservatively assumed that all residents are new residents to the area. For comparative purposes, the City's estimated population in January 2016 was approximately 66,748 (DOF 2020); thus, the project would increase population by approximately 1 percent. The proposed project would also construct approximately 174,851 square feet of nonresidential development, which would generate approximately 412 new jobs/employees on-site.

Construction activities would be conducted in accordance with the California Manual of Uniform Traffic Control Devices (MUTCD) to ensure traffic safety on public streets, highways, pedestrian walkways, and bikeways. Construction contractors would be required to comply with all City of Laguna Niguel standard conditions pertaining to construction including work hours, traffic control plan, haul route, and access. Where possible, construction related trips will be restricted to off-peak hours. Construction activities associated with the proposed project, including staging and stockpiling, would occur within the project boundaries and not on any major arterials or highways that could be used during potential emergency situations.

Additionally, storage of construction materials and construction equipment—such as construction office trailers, cranes, storage containers, and trailers detached from vehicles—is prohibited on City property, including City streets, without a permit. Project construction and operation would comply with City requirements regarding storage on City property, including City streets. Construction material and equipment would be staged or stored on-site and would not interfere with emergency access to or evacuation from surrounding properties.

During project operation, Pacific Island Drive, Crown Valley Parkway, and Alicia Parkway would still be available as major evacuation routes. No policy or procedural changes to an existing risk management plan, emergency response plan, or evacuation plan would be required due to project implementation. Therefore, project construction would not alter response times or performance objectives.

OCFA indicates that there are no existing deficiencies in the level of fire protection services currently provided to the project site. According to OCFA, the current average response time in Laguna Niguel is 7 minutes and 15 seconds (Contreras 2020). This is 5 seconds less than OCFA's response time goal of 7 minutes and

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20 seconds. Additionally, OCFA Station No. 5 is located within the project site with direct access through internal streets to all proposed new construction and would be the first station to respond to an emergency at the project site. OCFA finds that existing OCFA equipment and personnel are adequate to maintain a sufficient level of service for the project area after project completion. Therefore, the potential increase in service demand generated by the proposed project would not have an adverse impact on OCFA's ability to serve the project area (Contreras 2020).

As stated at the end of Section 5.13.1.1, all developments in the City are required to enter into a secured fire protection agreement with OCFA. The funds from the agreement ensure that the necessary resources are available for OCFA to provide infrastructure and capital improvements to continue supporting the regional service area. Additional funding is provided by County and City revenue generated by property taxes, intergovernmental revenues, and other sources. Such funds would allow OCFA to maintain adequate staffing and continue meeting its adopted performance standards for response times.

The proposed project would be required to comply with the CFC fire flow requirements to ensure adequate water supply and pressure are available during a fire. The flow requirements are based on construction type and area involved. Compliance with the CFC fire flow requirements, site access requirements, codes and standards for building construction and mitigation of fire hazards, and design of fire extinguishing and fire alarm systems would be ensured during plan check by OCFA's Planning and Development Services.

Operation of the proposed project would not require OCFA to hire additional personnel, would not affect OCFA's ability to provide adequate service, and would not require new or expanded fire protection facilities that could result in adverse environmental impacts.

***Level of Significance Before Mitigation:*** Less than significant impact.

#### 5.13.1.5 CUMULATIVE IMPACTS

The geographic area for cumulative analysis of fire protection services is the OCFA's service area in Laguna Niguel. New residents and workers associated with the cumulative projects listed in Table 4-1 are expected to increase demand for fire protection services and would contribute to the need to expand facilities and operate such services.

Buildout of the proposed project and cumulative projects in Table 4-1 would introduce new dwelling units, elderly care facilities, commercial/restaurant, places of worship, school/institutional, hotel, horse equestrian center, storage, office, open space and park, parking, and community facilities. Cumulative development would lead to an increase in emergency and public service calls, which would make additional demands on station and equipment maintenance, staffing, training, and fire prevention inspection. However, Cumulative Project #1, The Cove at El Niguel, is the only cumulative project in addition to the proposed project that that is anticipated to receive first response from OCFA Station No. 5 due to its proximity to the station. The remaining 30 cumulative projects are closer to other fire stations, including OCTA Stations No. 57, No. 39, and No. 9 to the north of the project site and OCFA Stations No. 49, No. 30, No. 7, and No. 29 to the southeast of the project site. Therefore, the increased demand for fire and emergency services from the proposed project and Cumulative Project #1 would not generate cumulatively considerable impacts on OCFA Station No. 5.

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Increased property and sales tax from new developments would increase the City's general funds in rough proportion, providing funding for capital improvements necessary to maintain adequate fire protection facilities, equipment, and/or personnel. Future projects are also required to enter into a secured fire protection agreement with OCFA, which would provide funding for OCFA's infrastructure and capital improvements. Finally, compliance with the existing regulations related to fire hazards, building codes, and emergency access would further ensure an adequate level of service for fire protection and emergency services to future residents and workers in Laguna Niguel. Therefore, the proposed project's increased demand for fire protection services, in conjunction with cumulative project fire service demands, would not result in significant cumulative impacts.

### 5.13.1.6 LEVEL OF SIGNIFICANCE BEFORE MITIGATION

Impact 5.13-1 would be less than significant.

### 5.13.1.7 MITIGATION MEASURES

No mitigation measures are required.

### 5.13.1.8 LEVEL OF SIGNIFICANCE AFTER MITIGATION

Less than significant prior to mitigation.

## 5.13.2 Police Protection

### 5.13.2.1 ENVIRONMENTAL SETTING

#### Regulatory Background

There are no federal or state regulations that apply to police protection.

#### *Laguna Niguel General Plan - Public Facilities Element*

The following goals and policies of the Public Facilities Element are related to police protection services and apply to the proposed project.

- **Goal 5:** A community that is well protected from criminal activity and achieves reduced crime rates.
  - **Policy 5.1.** Assure that adequate sheriff service is available in the City.
  - **Policy 5.2.** Require incorporation of defensible space techniques in building design.

#### Existing Conditions

Police services are provided to Laguna Niguel through a contract with the Orange County Sheriff's Department (OCSD). OCSD is responsible for providing citizen protection, law enforcement, and crime prevention. Law enforcement services include patrol, traffic enforcement, accident analysis and investigation, parking enforcement, general and special investigations, the Community Support Unit, and the volunteer Police Auxiliary Citizens Team. The Laguna Niguel Police Services station is adjacent to the site at Laguna Niguel City

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Hall, and the next closest OCSD station is at 11 Journey, Aliso Viejo, approximately three miles north of the project site (see Figure 5.13-1, *Public Services*).

#### *Staffing and Equipment*

The OCSD currently employs 47.35 personnel to serve Laguna Niguel—40.35 sworn officers and 7 nonsworn personnel. Currently, OCSD's existing resources are adequate to serve the City, and there are no existing or near-future plans for the expansion of OCSD facilities, staff, or equipment inventory to serve Laguna Niguel (McDaniel 2020). Appendix K to this DEIR contains the responses from OCSD regarding stations, staff, and response times.

#### *Response Times*

OCSD's goal response times for emergency and nonemergency calls are 5 and 14 minutes, respectively. Current average response times are 4 minutes and 47 seconds for emergency calls and 13 minutes and 45 seconds for nonemergency calls (McDaniel 2020; Appendix K of this DEIR). Therefore, OCSD is responding to emergency and nonemergency calls within its goal response times.

#### *Funding*

Funding for OCSD services in Laguna Niguel comes primarily from the City's general fund and supplemental law enforcement funds, which are provided by California's Citizens Options for Public Safety program and the Regional Narcotics Suppression Program (Laguna Niguel 2019). These sources of funding provide OCSD with adequate staffing, equipment, and facilities to adequately serve the city's needs.

### 5.13.2.2 THRESHOLDS OF SIGNIFICANCE

According to Appendix G of the CEQA Guidelines and the City's CEQA Manual, a project would normally have a significant effect on the environment if the project would:

- PP-1 Result in a substantial adverse physical impact associated with the provisions 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 police protection services.

### 5.13.2.3 PLANS, PROGRAMS, AND POLICIES

No existing plans, programs, and policies are applicable to police protection impacts of the proposed project.

### 5.13.2.4 ENVIRONMENTAL IMPACTS

#### **Methodology**

PlaceWorks staff submitted service information requests and a corresponding service questionnaire to the Orange County Sheriff's Department on December 16, 2019, to document the current police facilities in the



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area and assess and identify potential impacts created by the proposed project. A response from OCSD was received on January 3, 2020, and is in Appendix K to this DEIR.

### Impact Analysis

The following impact analysis addresses thresholds of significance. The applicable thresholds are identified in brackets after the impact statement.

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**Impact 5.13-2: The project would not result in a substantial adverse physical impact associated with the provisions 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 police protection services. [Threshold PP-1]**

---

Development of the project would increase residents and employees in the project area and thus would be expected to increase the demand for police protection services. The project proposes 275 residential units and 174,851 square feet of nonresidential development. As discussed in Section 5.12, *Population and Housing*, the proposed project would result in approximately 704 new residents and 412 new employees to the project site and the City. As described in Impact 5.13-1 above, construction activities would be conducted in accordance with the California MUTCD to ensure traffic safety on public streets, highways, pedestrian walkways, and bikeways. Construction contractors would be required to comply with all City of Laguna Niguel standard conditions pertaining to construction including work hours, traffic control plan, haul route, and access. Where possible, construction related trips will be restricted to off-peak hours. Construction activities associated with the proposed project, including staging and stockpiling, would occur within the project boundaries and not on any major arterials or highways that could be used during potential emergency situations. Therefore, project construction would not alter response times or performance objectives for police protection services.

As mentioned above, OCSD currently achieves its response time goal for both emergency and nonemergency calls in Laguna Niguel. Its existing resources adequately serve the City without any deficiencies (McDaniel 2020). The project site is adjacent to the Laguna Niguel Police Services station; therefore, police officers would be able to quickly respond to calls for service from the project site.

According to OCSD, the proposed project may require policing that relies more heavily on foot and bicycle patrols (McDaniel 2020). Therefore, it is possible that OCSD may need to add personnel and/or equipment (i.e., bikes and motorcycles) to properly patrol the project area in the future. However, OCSD does not anticipate requiring new or physically altered police facilities in order to maintain acceptable levels of service. The project applicant would be required to work with the City Community Development Department and OCSD's Police Services Crime Prevention Specialists to review project plans and identify potential problems and site design solutions that can increase resident and visitor safety. Section 5.15, *Transportation*, further discusses emergency access and finds that the project's potential impact on emergency access would be less than significant.

Development of the project is also expected to proportionally increase the City's general funds through tax revenues. Other funding sources for OCSD include the supplemental law enforcement and regional narcotics

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suppression funds. Therefore, the proposed project is not expected to substantially impact OCSD's existing police services in Laguna Niguel, and adequate staffing and response times would be maintained.

*Level of Significance Before Mitigation:* Less than significant impact.

#### 5.13.2.5 CUMULATIVE IMPACTS

The geographic area for cumulative analysis of police protection services is OCSD's service area within Laguna Niguel. OCSD would continue to evaluate levels of service and potential funding sources to meet future demand. Through assessments of the City's capital improvement needs and annual budget review process, OCSD needs would be assessed, and budget allocations would be revised to ensure that adequate levels of police services, including police facilities, equipment, and/or personnel, are maintained throughout the City.

Buildout of the proposed project and cumulative projects in Table 4-1 would introduce new dwelling units, elderly care facilities, commercial/restaurant, places of worship, school/institutional, hotel, horse equestrian center, storage, office, open space and park, parking, and community facilities. Cumulative development would lead to an increase in emergency and nonemergency calls, which would make additional demands on police protective services and equipment maintenance, staffing, and training. Five of the cumulative projects are in the City and would be served by the same OCSD personnel as the proposed project. Cumulative development of these five projects and the proposed project would lead to additional demands on OCSD's provided services in Laguna Niguel, including staffing, training, and response to emergency and nonemergency calls.

However, increased property and sales taxes from new developments would increase the City's general fund, providing funding for additional staffing, equipment, and capital improvements necessary to maintain adequate levels of service throughout the City. Therefore, the demand for police services would not be adversely affected by the proposed project in conjunction with the cumulative projects in Table 4-1. No significant cumulative impacts related to police services are anticipated.

#### 5.13.2.6 LEVEL OF SIGNIFICANCE BEFORE MITIGATION

Impact 5.13-2 would be less than significant.

#### 5.13.2.7 MITIGATION MEASURES

No mitigation measures are necessary.

#### 5.13.2.8 LEVEL OF SIGNIFICANCE AFTER MITIGATION

Less than significant prior to mitigation.

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### 5.13.3 School Services

#### 5.13.3.1 ENVIRONMENTAL SETTING

##### Regulatory Background

###### *State*

###### ***California State Assembly Bill 2926: School Facilities Act of 1986***

To assist with providing school facilities to serve students generated by new development, Assembly Bill (AB) 2926 was enacted in 1986 and authorized a levy of impact fees on new residential and commercial/industrial development. The bill was expanded and revised in 1987 through the passage of AB 1600, which added Sections 66000 et seq. to the Government Code. Under this statute, payment of impact fees by developers serves as CEQA mitigation to satisfy the impact of development on school facilities.

###### ***California Senate Bill 50***

Senate Bill (SB) 50, passed in 1998, is a comprehensive school facilities financing and reform program and enables a statewide bond issue to be placed on the ballot. Under SB 50, school districts are authorized to collect fees to offset the costs of increasing school capacity as a result of development and related population increases. The funding goes to acquiring school sites, constructing new school facilities, and modernizing existing facilities. SB 50 establishes a process for determining the amount developers would be charged. According to Section 65996 of the California Government Code, development fees authorized by SB 50 are deemed “full and complete school facilities mitigation.”

Under this legislation, three levels of fees may be imposed. Level I fees are assessed based on the proposed square footage of residential, commercial/industrial, and/or parking structure uses. Level II fees require the developer to provide one-half of the costs of accommodating students in new schools, and the state provides the remaining half. To qualify for Level II fees, the governing board of the school district must adopt a School Facilities Needs Analysis and meet other prerequisites in accordance with Section 65995.6 of the California Government Code. Level III fees apply if the state runs out of bond funds, allowing the governing school district to impose 100 percent of the cost of school facility or mitigation on the developer, minus any local dedicated school monies.

###### *Local*

###### ***Laguna Niguel General Plan - Public Facilities Element***

The following goals and policies of the Public Facilities Element are related to school services and apply to the proposed project.

- **Goal 7:** A quality school system with adequate facilities and funding to educate the youth of Laguna Niguel.
- **Policy 7.1.** Work with the Capistrano Unified School District to ensure adequate educational facilities are provided and maintained.

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- **Policy 7.2.** Work cooperatively with Capistrano Unified School District and other cities to plan for future school needs.

### Existing Conditions

Students in the project area are served by the Capistrano Unified School District (CUSD). The project site is within the attendance boundaries of Moulton Elementary School (K-5), Niguel Hills Middle School (6-8), and Dana Hills High School (9-12) (see Figure 5.13-1, *Public Services*). Table 5.13-3 provides additional details for each school, including current enrollment and student capacity. As shown, these schools are currently able to meet enrollment demands and have sufficient capacity for future students.

**Table 5.13-3 CUSD Schools Serving the Project Site**

Schools	Grades	Total Capacity	2018-2019 Enrollment	Remaining Capacity
<b>Moulton Elementary School</b> 29851 Highlands Avenue Laguna Niguel, CA 92677	K-5	788	660	128
<b>Niguel Hills Middle School</b> 29070 Paseo Escuela Laguna Niguel, CA 92677	6-8	1,499	1,192	307
<b>Dana Hills High School</b> 33333 Golden Lantern Dana Point, CA 92629	9-12	2,794	2,716	78
<b>Total</b>		<b>5,081</b>	<b>4,568</b>	<b>513</b>

Source: Lawing 2020.

School funding comes predominantly from federal, state, and local contributions, such as sales tax and property tax. CUSD charges impact fees pursuant to SB 50. Development fees are \$3.79 per square foot of assessable new residential development (Lawing 2020).

The number of students generated by new dwelling units in the CUSD area is estimated based on student generation rates set by the district. CUSD has different individual student generation rates for three classifications of dwelling units. Table 5.13-4 lists the student generation rates for single-family detached, single-family attached, and multifamily dwelling units.

**Table 5.13-4 CUSD Student Generation Rates**

	Single-Family Detached	Single-Family Attached	Multifamily
Elementary School (K-5)	0.33	0.20	0.15
Middle School (6-8)	0.09	0.07	0.06
High School (9-12)	0.13	0.08	0.06

Source: Lawing 2020.

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### 5.13.3.2 THRESHOLDS OF SIGNIFICANCE

According to Appendix G of the CEQA Guidelines and the City's CEQA Manual, a project would normally have a significant effect on the environment if the project would:

SS-1 Result in a substantial adverse physical impact associated with the provisions 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 school services.

### 5.13.3.3 PLANS, PROGRAMS, AND POLICIES

PPP SS-1 New development shall pay development fees authorized deemed by Section 65996 of the California Government Code to be "full and complete school facilities mitigation."

### 5.13.3.4 ENVIRONMENTAL IMPACTS

#### Methodology

PlaceWorks staff submitted service information requests and a corresponding service questionnaire to the Capistrano Unified School District on December 16, 2019, to document the current school facilities in the area and assess and identify potential impacts created by the proposed project. A response from CUSD was received on January 28, 2020, and is in Appendix K to this DEIR.

#### Impact Analysis

The following impact analysis addresses thresholds of significance. The applicable thresholds are identified in brackets after the impact statement.

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**Impact 5.13-3: The proposed project would add 75 students to the Capistrano Unified School District; however, the generated students as part of the project would not result in a substantial adverse physical impact associated with the provisions 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, or other performance objectives for school services. [Threshold SS-1]**

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The project proposes up to a maximum of 275 multifamily residential units. Future student residents of the proposed project would be served by Moulton Elementary School, Niguel Hills Middle School, and Dana Hills High School.

CUSD uses student generation rates to estimate the number of students generated by new development in order to determine whether or not existing school facilities would be adequate for future student enrollment. Using the multifamily student generation rates shown in Table 5.13-4, the proposed 275 residential units would introduce approximately 75 students (see Table 5.13-5).

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**Table 5.13-5 Proposed Project Student Generation**

Proposed Land Use	Units	Student Generation Rate	Generated Students	Current Enrollment (2018-2019)	Current Enrollment + Generated*	Current Capacity*	Remaining Capacity*
Multifamily Residential (Residential Core)	275	E.S. = 0.15	41	660	701	788	87
		M.S. = 0.06	17	1,192	1,209	1,499	290
		H.S. = 0.06	17	2,716	2,733	2,794	61
<b>Total</b>			<b>75</b>	<b>4,568</b>	<b>4,643</b>	<b>5,081</b>	<b>438</b>

Source: Lawing 2020.

Notes: E.S. = elementary school (K-5); M.S. = middle school (6-8); H.S. = high school (9-12)

\* At the CUSD schools shown in Table 5.13-3 that would serve the project site.

As shown in Table 5.10-5, Moulton Elementary School, Niguel Hills Middle School, and Dana Hills High School would be able to accommodate the estimated 75 additional students generated by the proposed project, with adequate remaining capacity for additional future students.

The project applicant would be required to pay development impact fees to CUSD at a rate of \$3.79 per square foot of residential development per SB 50 (Lawing 2020). The fees would be collected by CUSD at the time building permits are issued. As stated in Government Code Section 65995(h),

The payment or satisfaction of a fee, charge, or other requirement levied or imposed ... are hereby deemed to be full and complete mitigation of the impacts of any legislative or adjudicative act, or both, involving, but not limited to, the planning, use, or development of real property, or any change in governmental organization or reorganization ... on the provision of adequate school facilities.

Payment of these fees would offset impacts from increased demand for school services associated with development of the proposed project by providing an adequate financial base to construct and equip new and existing schools as needed. Therefore, CUSD would be able to provide adequate school facilities for the projected student residents of the proposed project, and payment of development impact fees would ensure that impacts are offset.

**Level of Significance Before Mitigation:** Less than significant impact.

#### 5.13.3.5 CUMULATIVE IMPACTS

All of the cumulative projects that include a residential component, shown in Table 4-1, could cumulatively impact CUSD school services, with the exception of cumulative projects in Laguna Hills that are served by Saddleback Valley Unified School District (Cumulative Projects #28 through #31), student dormitory (Cumulative Project #27), and senior living facilities (Cumulative Project #3). The remaining cumulative residential projects would generate 1,465 multifamily residential units and 746 single-family residential units, which would generate 466 elementary school students, 155 middle school students, and 185 high school students. These students would be distributed across CUSD schools, including the three schools serving the project site. The student populations that would be served by the same schools as the proposed project would

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be less. It is possible that cumulative projects would exceed the total capacity at Moulton Elementary School and Dana Hills High School;<sup>1</sup> however, each cumulative project, similar to the proposed project, would be required to pay development impact fees to CUSD. The State Legislature provided authority for school districts to assess impact fees for both residential and nonresidential development projects. CUSD requires payment of \$3.79 per square foot of residential development (Lawing 2020). Those fees, authorized under Education Code Section 17620(a) and Government Code Section 65995(b), are collected by municipalities at the time building permits are issued and conveyed to the school district in accordance with a defined fee structure. The legislature has declared that the payment of these fees constitutes full mitigation for the impacts generated by new development (Government Code Section 65995). Since all future development projects must pay appropriate impact fees, each development project would mitigate its own impacts. No cumulative impact on CUSD is anticipated as a result of the implementation of the proposed project in conjunction with other area-wide development.

### 5.13.3.6 LEVEL OF SIGNIFICANCE BEFORE MITIGATION

Upon implementation of regulatory requirements, the Impact 5.13-3 would be less than significant.

### 5.13.3.7 MITIGATION MEASURES

No mitigation measures are required.

### 5.13.3.8 LEVEL OF SIGNIFICANCE AFTER MITIGATION

Less than significant prior to mitigation.

## 5.13.4 Library Services

### 5.13.4.1 ENVIRONMENTAL SETTING

#### Regulatory Background

##### *Local*

##### *Laguna Niguel General Plan - Public Facilities Element*

The following goals and policies of the Public Facilities Element are related to library services and apply to the proposed project.

- **Goal 6:** A range of community services and cultural facilities that meet the needs of Laguna Niguel residents and enhance their quality of life.
  - **Policy 6.2.** Cooperate with the County of Orange to provide for library facilities and services that are consistent with community needs.

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<sup>1</sup> Niguel Hills Middle School was not included because the cumulative projects' total anticipated middle school population would not exceed the remaining capacity for the middle school.

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#### Existing Conditions

Orange County Public Libraries (OCPL) provides library services to patrons throughout Orange County through 33 branches; an administration building; and an outlet in the Orangewood Children’s Home in Santa Ana, where patrons can drop off and pick up books on hold and search the library catalog. Library services at each branch include wireless internet; interlibrary loans; computer training classes; and book clubs for children, teens, and adults. Branch locations closest to the project site are listed in Table 5.13-6.

**Table 5.13-6 Orange County Public Libraries**

OCPL Library	Address	Distance to Project Site
Laguna Niguel Library	30341 Crown Valley Parkway, Laguna Niguel, CA 92677	Within project boundaries
Dana Point Library	33841 Niguel Road, Dana Point, CA 92629	3.19 miles
Aliso Viejo Library	1 Journey, Aliso Viejo, CA 92656	3.35 miles
San Juan Capistrano Library	31495 El Camino Real, San Juan Capistrano, CA 92675	3.23 miles

The Laguna Niguel Library is within the project boundary at 301341 Crown Valley Parkway. The library is approximately 14,400 square feet, serves a diverse user population, and is open seven days a week. It is the third-highest circulating branch in South County. The main user groups at the Laguna Niguel Library are young children and their parents, retirees and senior citizens, and internet users. The Laguna Niguel Library currently has 11 full time employees (Quillman 2021).

According to the County Librarian (2021), the current configuration of seating, staff space, computer arrangement and book stacks are dated and do not function as efficiently as contemporary libraries should function. The existing library requires an updated library interior to include increased seating areas, group study rooms, early childhood area, and an expanded teen area.

The Laguna Niguel Library is primarily funded as a part of the Orange County Public Library system through maintenance and operations payments by the City to the County (Laguna Niguel 2019). Additional funding is supplied by fundraising activities of the Friends of the Laguna Niguel Library, a volunteer group that operates a used bookstore on the library premises. The Friends of the Laguna Niguel Library sells used books, computer software, and various media and donates all proceeds to the library.

#### 5.13.4.2 THRESHOLDS OF SIGNIFICANCE

According to Appendix G of the CEQA Guidelines and the City’s CEQA Manual, a project would normally have a significant effect on the environment if the project would:

- LS-1 Result in a substantial adverse physical impact associated with the provisions 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 library services.



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### 5.13.4.3 PLANS, PROGRAMS, AND POLICIES

No existing plans, programs, and policies are applicable to library impacts of the proposed project.

### 5.13.4.4 ENVIRONMENTAL IMPACTS

#### Methodology

PlaceWorks staff submitted service information requests and a corresponding service questionnaire to the Orange County Public Libraries on December 16, 2019, to document the current library facilities in the area and assess and identify potential impacts created by the proposed project. A response from OCPL was received on November 18, 2021, and is in Appendix K to this DEIR.

#### Impact Analysis

The following impact analysis addresses thresholds of significance. The applicable thresholds are identified in brackets after the impact statement.

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**Impact 5.13-4: The project would not result in a substantial adverse physical impact associated with the provisions 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, or other performance objectives for library services. [Threshold LS-1]**

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The proposed 275 residences, and generation of 704 residents, would be expected to incrementally increase demand on library services, primarily the Laguna Niguel Public Library, which is on the southwest corner of the project site at 30341 Crown Valley Parkway. During construction, the Laguna Niguel Library would be temporarily relocated nearby to accommodate the existing library visitors.

Future residents of the project site would be mainly served by the Laguna Niguel Library; however, residents would have access to all 33 libraries in the OCPL system. As shown in Table 5.13-6, the Dana Point, Aliso Viejo, and San Juan Capistrano libraries are all within four miles of the project site. The ability of new residents to freely visit other libraries in the OCPL system would alleviate demand on the Laguna Niguel Library facility, and patrons could use interlibrary loans and obtain resources from any OCPL branch library. Therefore, library resources would not be limited to what is provided by the Laguna Niguel Library.

As part of the proposed project, the Laguna Niguel Library would be replaced with a new building in the center of the project site, the project's "retail village core." The new library building would modernize the library and provide a larger library (approximately 16,290 square feet) than the existing library (approximately 14,400 square feet). The relocation and construction of a new library building are part of the proposed project and the potential construction and operation-related impacts for the library are, therefore analyzed throughout this DEIR

Relative to the existing library, the new larger library would also include programmable outdoor space. The new library would also provide a better designed and more functional library space equipped with modern

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### PUBLIC SERVICES

technologies and improved space planning to support the needs of the broader library community and allow for more programming during the year. The proposed project would improve existing library service, and therefore, project impacts would be less than significant.

*Level of Significance Before Mitigation:* Less than Significant

#### 5.13.4.5 CUMULATIVE IMPACTS

Similar to the proposed project, future residents of the cumulative projects in Table 4-1 may visit the Laguna Niguel Public Library. The proposed project and Cumulative Project #1 (23 condominium The Cove at El Niguel project) are the closest projects to the Laguna Niguel Public Library and would likely generate the most demand for the Laguna Niguel Public Library. The other cumulative projects are closer to other libraries, such as the San Juan Capistrano Library or Aliso Viejo Library, and residents of these projects would likely go to the libraries closer to their residences. However, as previously stated, future residents would have access to all 33 OCPL branches. In addition, funding for library services is allocated through the County's general funds. Therefore, as new developments occur, property and sales taxes would increase in rough proportion and contribute to an increase in the County's general funds and, consequently, a larger allocation of funds for library services. Overall, the proposed project's contribution to cumulative impacts on library services would be less than significant.

#### 5.13.4.6 LEVEL OF SIGNIFICANCE BEFORE MITIGATION

Project-related and cumulative impacts would be less than significant.

#### 5.13.4.7 MITIGATION MEASURES

No mitigation measures are necessary.

#### 5.13.4.8 LEVEL OF SIGNIFICANCE AFTER MITIGATION

Less than significant prior to mitigation.

### 5.13.5 References

Department of Finance (DOF). 2020. Report E-5: Population and Housing Estimates for Cities, Counties, and the State: January 1, 2010–2020, with 2010 Benchmark.  
<http://dof.ca.gov/Forecasting/Demographics/Estimates/E-5/>

Laguna Niguel, City of. 2020. Adopted Operating & Capital Improvement Budget, Fiscal Year 2020-2021.  
<https://www.cityoflagunaniguel.org/DocumentCenter/View/20777/FY-2021-22-Adopted-Operating-Budget-and-Capital-Improvement-Program->

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Quillman, Julie (county librarian). 2021, November 18. Questionnaire Response. Orange County Public Libraries.

Contreras, Michael (Division 5 chief). 2020, January 16. Questionnaire Response. Orange County Fire Authority.

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### **PUBLIC SERVICES**

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### 5.14 RECREATION

This section of the Draft Environmental Impact Report (DEIR) evaluates the potential for implementation of the Laguna Niguel City Center Mixed Use Project (proposed project) to impact public parks and recreational facilities.

#### 5.14.1 Environmental Setting

##### 5.14.1.1 REGULATORY BACKGROUND

###### State

###### *Quimby Act of 1975*

The Quimby Act of 1975 (California Government Code Section 66477) requires the dedication of land and/or fees for public park and recreational purposes as a condition for approval of a tentative map or parcel map. The act establishes procedures that can be used by local jurisdictions to provide neighborhood and community parks and recreational facilities and services for new residential subdivisions. It allows cities and counties to require up to five acres of park for every 1,000 residents.

###### *California Public Park Preservation Act*

The primary instrument for protecting and preserving parkland is California's Public Park Preservation Act of 1971 (Public Resources Code). Under the act, cities and counties may not acquire any real property that is in use as a public park for any nonpark use unless compensation, land, or both are provided to replace the parkland acquired. This ensures no net loss of parkland and facilities.

###### Local

###### *Laguna Niguel General Plan - Open Space/Parks/Conservation Element*

The following goals and policies of the Open Space/Parks/Conservation Element are related to parks and recreational facilities and apply to the proposed project.

- **Goal 2:** A system of public and private park and recreation facilities achieved in cooperation with private community associations.
  - **Policy 2.1.** Provide park and recreational facilities that meet the needs of senior citizens, young adults, children, disabled individuals and families.
  - **Policy 2.2.** Plan for new high-quality recreation facilities and programs.
  - **Policy 2.3.** Facilitate cooperative use of recreational facilities and programs.
  - **Policy 2.4.** Continue effective park and recreation area maintenance programs.

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### *Laguna Niguel Municipal Code*

The Laguna Niguel Municipal Code identifies land use categories, development standards, and other general provisions that ensure consistency between the City’s General Plan and proposed projects. The following provisions from the Municipal Code address park and recreational facilities:

- **Section 9-1-45.3 (Landscaping and Open Area).** The project includes a zone change to Mixed Use Town Center (MU-TC), which would allow for a mix of uses including multifamily development on the project site. This section applies to the MU-TC zone. All projects in the MU-TC district requires interior landscaping equal to at least 5 percent of the buildable project area. “Buildable project area” means the horizontal area within the boundaries of a development project; less slope areas with a ratio of 2:1 or steeper; and less perimeter rights-of-way and easements and areas set aside for public schools, parks, and other public uses. Within the MU-TC district, an additional 10 percent of the buildable project area shall be devoted to landscaping and 300 square feet of active and/or passive recreation areas shall be provided per dwelling unit.
- **Section 9-1-508 (Use of fees).** All park fees paid and interest accrued from such fees to the City shall be used to acquire and develop new parks or rehabilitate existing parks or recreational facilities to serve the subdivision, and shall be deposited in a special account reserved for such purposes.
- **Section 9-1-520 (Applicability).** Any person who proposes to divide real property for the purpose of creating a residential subdivision or a parcel map for residential use shall pay a park fee or provide parkland.
- **Section 9-1-522 (Amount of park land required).** This section details the amount of park land required by residential subdivision projects. Depending on the density of the residential development, applicants are required to provide parkland, payment of park fees, or a combination of both.

When the requirements of this article are complied with solely on the basis of providing park land, the amount of land to be provided shall be computed by multiplying the number of proposed dwelling units by the park land acres per dwelling unit in accordance with the appropriate density classification in the following table [Table 5.14-1]:

**Table 5.14-1 Required Parkland for Residential Projects**

Dwelling Units per Gross Acre	Persons per Dwelling Unit	Park Land Acres per Dwelling Unit
Up to 6.5	3.21	0.0096
6.6 to 15.5	2.59	0.0078
15.6 to 25.5	1.99	0.0060
25.6 and up	1.88	0.0056

Source: City of Laguna Niguel Municipal Code Section 9-1-522.

- **Section 9-1-523 (Amount of park fees required).** The required park fees are calculated by multiplying the number of proposed dwelling units by the park land acres per dwelling unit shown in Table 5.14-1 and

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### RECREATION

multiplying the resultant acreage amount by the representative land value of the land being developed per acre.

- Section 9-1-524 (Amount of park land and park fees combined).** When parkland requirements are met with a combination of both the provision of parkland and the payment of park fee, the amount of the park fee shall be computed by determining the required amount of park land in accordance with the provisions of Section 9-1-522 and subtracting the amount of park land actually provided. The remainder shall be converted to a fee in accordance with the provisions of Section 9-1-523.

#### 5.14.1.2 EXISTING CONDITIONS

The Laguna Niguel Parks and Recreation Department owns and maintains 433 acres of parkland in Laguna Niguel (Giglio 2019). In addition to providing parkland, the Department offers programs and recreational activities, including an aquatics program, skate park, youth and adult sports, senior activities, youth and teen programs, special events and contracted programs, rental facilities, and trails.

#### City Parks

The City parks in Table 5.14-2 are within a one-mile radius of the project site and would likely serve future residents of the proposed project.

**Table 5.14-2 Parks Serving the Project Site**

Park and Location	Acreage	Amenities
Niguel Woods Park 29883 White Otter Lane	2	1 tot lot with slide; 2 regular swings; 1 small sandy play area; 3 park benches; turf area w/soccer backstop
Crown Valley Community Park 29571 Crown Valley Parkway	31	1 pool (with diving boards); 1 fit pool; 1 spray ground; 30 picnic tables; 7 barbeques; 1 softball field; 3 group sites; 2 soccer fields; 3 sets of restrooms; 1 bike trail; 2 playgrounds; 1 outdoor amphitheater; 338 parking spaces; Niguel Botanical Preserve (18 acres); 9 community rental spaces/rooms
La Hermosa Park 24462 La Hermosa Avenue	0.5	1 playground; 1 picnic table; 1 barbecue
Clipper Cove Park 29325 Clipper Way	4.7	1 large shelter; 3 picnic tables; 2 tot lots with slides; 1 large sand area; 2 baby swings; 2 regular swings; 4 park benches
Seminole Park 30802 Seminole Place	2.2	1 tot lot with sand; 2 baby swings; 2 picnic tables; 2 benches; 1 large turf area

Source: Giglio 2019.

The Crown Valley Community Park is home to the Crown Valley Community Pool, the Laguna Niguel Labyrinth and Niguel Botanical Preserve, and the Laguna Niguel Family YMCA. Youth and teen programs, recreation classes, and special events are offered at the community park year-round. Recent renovations of the

## 5. Environmental Analysis

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Crown Valley Community Park include the addition of two new playgrounds, a spray ground, and amphitheater renovations (Laguna Niguel 2019a).

#### City Trails

The City offers approximately 80 miles of scenic trails, many of which connect to City parks and open space areas. The closest main trail to the project site is the Salt Creek Trail, which is north and south of the project site and connects two large coastal canyons that encompass four major public parks—the Crown Valley Community Park and Laguna Niguel Regional Park in the Sulphur Creek Canyon to the north and the Chapparosa Community Park and Salt Creek Regional Park in the Salt Creek Canyon to the south. The Salt Creek Trail is the longest trail segment in the City and includes equestrian trails and Class I bikeways (Laguna Niguel 2019b).

#### Laguna Niguel Regional Park

Laguna Niguel Regional Park is owned and maintained by the County of Orange and is outside of the one-mile radius of the project. However, it is in the City and would provide additional park and recreational opportunities. The regional park is at 28241 La Paz Road and encompasses 227 acres, including a 44-acre lake at its center. Recreational amenities include lake fishing, picnic areas, shelters and barbecues/fire rings, amphitheater, bicycle and hiking trails, horseshoe pits, pickleball courts, playground/tot lot, radio controlled glider area, restrooms, scenic overlook, tables, tennis courts, and volleyball courts (OC Parks 2019).

#### Facility Funding

According to Section 9-1-523 of the Municipal Code, if dedicated parkland is not feasible, in-lieu park fees are required. The required park fees are calculated by multiplying the number of proposed dwelling units by the required park land acres per dwelling unit and multiplying the resulting acreage by the estimated land value per acre. All paid park fees and interest accrued from such fees must be used to acquire and develop new parks or rehabilitate existing parks or recreational facilities to serve the subdivision, and they shall be deposited in a special account reserved for such purposes.

Additional park funding is provided through the City's general funds; facility rentals; and registration fees for classes, activities, and camps.

### 5.14.2 Thresholds of Significance

According to Appendix G of the CEQA Guidelines and the City's CEQA Manual, a project would normally have a significant effect on the environment if the project:

- R-1        Would 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.
  
- R-2        Includes recreational facilities or requires the construction or expansion of recreational facilities which might have an adverse physical effect on the environment.



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### 5.14.3 Plans, Programs, and Policies

RR REC-1 The proposed project will be required to comply with the provisions of Section 9-1-45.3, Landscaping and open area; Section 9-1-508, Use of fees; Section 9-1-520, Applicability; Section 9-1-522, Amount of park land required; and Section 9-1-523, Amount of park fees required, of the Laguna Niguel Municipal Code.

### 5.14.4 Environmental Impacts

#### 5.14.4.1 METHODOLOGY

PlaceWorks staff submitted service information requests and a corresponding service questionnaire to the Laguna Niguel Parks and Recreation Department (P&RD) on December 16, 2019, to document the current park and recreational facilities in the area and assess and identify potential impacts created by the proposed project. A response from PRD was received on December 19, 2019 and is contained in Appendix K to this DEIR.

#### 5.14.4.2 IMPACT ANALYSIS

The following impact analysis addresses thresholds of significance. The applicable thresholds are identified in brackets after the impact statement.

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**Impact 5.14-1: The proposed project would increase the use of existing neighborhood and regional parks or other recreational facilities but would not cause substantial physical deterioration of the facilities. [Threshold R-1]**

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The project proposes 275 multifamily residential dwelling units. The City's Municipal Code has two parkland provisions applicable to the proposed project—the local park code and the common open area requirement (MU-TC district). The project's consistency with each of these two requirements is analyzed separately below. By complying with these two requirements, the project would provide additional public and private recreation facilities. While the increase in population associated with the project would likely use existing recreation facilities, by providing active and passive recreation facilities on the project site, the new residents would not solely need to rely on existing recreation facilities, thus not causing substantial deterioration of the existing facilities.

#### Local Park Code Requirement

The local park code in Section 9-1-522 of the Municipal Code specifies parkland requirements for all development projects pursuant to the Quimby Act.

The Residential Village component of the proposed project is approximately nine acres and includes the development of 275 dwelling units at approximately 31 dwelling units per acre (du/acre). Based on the parkland requirement table in Section 9-1-522 (reproduced as Table 5.14-1), residential development at this density would require 0.0056 parkland acre per dwelling unit. Thus, the proposed project would be required to provide 1.54 acres of parkland.

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### RECREATION

Extensive landscaping and common gathering areas would be developed throughout the project site. The Town Green at the main entrance to the Retail Village Core would have a central open space plaza area that would be linked by landscaped paseos, which would feature mature shade trees, outdoor lighting, soft seating areas, gardens and water features, event/performance space, and other programmable space. The one-story retail buildings would open to the Town Green area. The proposed project requires a Site Development Permit which would include a detailed review for compliance with the required parkland. If it is determined that the project does not meet the required parkland acreages, in-lieu park fees would be required. Park fees are to be calculated according to Section 9-1-523 of the City's Municipal Code. The park fee amount is computed by multiplying the number of proposed dwelling units (275 units) by the park land acres per dwelling unit shown in Table 5.11-1 (0.0056 acres per dwelling unit) and by multiplying the resultant acreage (1.54 parkland acres) by the representative land value of the land being developed per acre. Representative land values shall be determined by adoption of a resolution by the City Council. Fees must be paid prior to issuance of building permits or at such time as otherwise provided by resolution of the City Council. Payment of the park fees represents the project's fair share impacts on existing parks and recreational facilities and would ensure impacts are less than significant.

#### **MU-TC Zone Open Space/Recreation Requirement**

The project would comply with the open space and landscaping requirements of Municipal Code Section 9-1-45.3. Compliance with these requirements would be reviewed and approved as part of the Site Development Permit approval process. Part (c) 4 of this section (applicable to all development projects) requires interior landscaping equal to at least 5 percent of the buildable project area. At least half that amount shall be located in parking areas and the remainder in other interior portions of the project such as next to buildings.

With the zone change proposed as part of the project, Section 9-1-45.3 (d) outlines additional landscape and open space requirements unique to the Mixed-Use Town Center (MU-TC) zoning district. This provision requires an additional 10% of the buildable project area to be improved with landscaping and requires active and or passive recreation at a minimum of 300 square feet per residential unit. This usable open space may be common space accessible to more than one (1) dwelling unit or may be private space for the exclusive use of individual units. The proposed code outlines specific requirements for:

- Private Outdoor Living Area
- Common Active and/or Passive Recreation Area
- Recreation Facilities
- Outdoor passive Leisure Space.

As described in Chapter 3.0, *Project Description*, amenities included in the residential areas would comply with the open space, landscaping and recreation requirements. The Residential 1 (200 apartments) area would include a fitness center with outdoor workout space, a resort pool and space, cabanas, a bike repair shop and pet space. Ground level units facing the commercial area would have expanded patios. The 75 apartments in the Residential 2 area would also be amenitized with open space and recreation areas. Some of the units would have private rooftop decks. A private lounge adjacent to a resort style pool and space, outdoor dining, cabanas and a fire pit are also planned. Furthermore, the commercial portions of the project include numerous common

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areas that provide amenities such as fire pits, shade structures, and/or soft seating, all of which contribute toward the passive recreation requirement.

*Level of Significance Before Mitigation:* Less than significant impact.

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**Impact 5.14-2: The proposed project includes recreational facilities and would not require the construction or expansion of additional recreational facilities which might have an adverse physical effect on the environment. [Threshold R-2]**

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According to the correspondence with the P&RD, the City is currently meeting its parkland standard of three acres per 1,000 residents and would continue to meet the parkland standard with the additional residents associated with the proposed project. The P&RD does not require the proposed project to construct new or expanded off-site parks. The proposed project would be required to comply with RR REC-1, including Municipal Code Section 9-1-522 and Section 9-1-523, which would require that the proposed project provide parkland and/or pay park fees.

The proposed project would not require the construction of new or expanded off-site parks or other recreation facilities because the proposed project includes active and passive recreation facilities to serve the new resident. Since no off-site recreation facilities require construction or expansion, potential impacts to the environment would be less than significant.

*Level of Significance Before Mitigation:* Less than significant impact.

### 5.14.5 Cumulative Impacts

Cumulative projects in Laguna Niguel, identified in Table 4-1, could lead to increased demand for parks and recreational space. However, similar to the proposed project, these cumulative projects would also be subject to Sections 9-1-522 and 9-1-523 of the Municipal Code, which require dedicated parkland or the payment of in-lieu park fees, depending on the proposed dwelling units and densities. Therefore, the proposed project, in conjunction with cumulative projects, would not result in cumulatively significant impacts to parks and recreational uses because existing requirements for parkland dedication and/or funding are in place that afford the City the ability to maintain recreational resources commensurate with population.

### 5.14.6 Level of Significance Before Mitigation

Impacts 5.14-1 and 5.14-2 would be less than significant.

### 5.14.7 Mitigation Measures

No mitigation measures are required.

### 5.14.8 Level of Significance After Mitigation

Impacts 5.14-1 and 5.14-2 would be less than significant prior to mitigation.

## 5. Environmental Analysis

### RECREATION

#### 5.14.9 References

Giglio, Alison (director). 2019, December 19. Questionnaire Response. City of Laguna Niguel Parks and Recreation Department.

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OC Parks. 2019. Laguna Niguel Regional Park. <http://ocparks.com/parks/lagunan/>.

## 5. Environmental Analysis

### 5.15 TRANSPORTATION

This section of the draft environmental impact report (DEIR) evaluates the potential for implementation of the Laguna Niguel City Center Mixed Use project (proposed project) to result in transportation impacts in the City of Laguna Niguel (City). The analysis in this section is based in part on the following technical report(s):

- *Traffic Impact Analysis Laguna Niguel City Center Project*, Linscott, Law & Greenspan, March, 9, 2022.
- *VMT Impact Analysis for the Laguna Niguel City Center Project*, Linscott, Law & Greenspan, August 30, 2021.

Complete copies of these studies are in the technical appendices to this Draft EIR (Appendix L).

#### 5.15.1 Environmental Setting

##### 5.15.1.1 REGULATORY BACKGROUND

###### State

###### *California Department of Transportation*

Caltrans is the primary state agency responsible for transportation issues. One of its duties is the construction and maintenance of the state highway system. Caltrans approves the planning, design, and construction of improvements for all state-controlled facilities. Caltrans is the owner/operator for Pacific Coast Highway and I-5 in the study area. For projects that may physically affect facilities under its administration, Caltrans requires encroachment permits before any construction work may be undertaken. For projects that would not physically affect facilities, but may influence traffic flow and levels of services at such facilities, Caltrans may recommend measures to mitigate the traffic impacts of such projects.

###### *Senate Bill 743*

On September 27, 2013, Senate Bill (SB) 743 was signed into law. The legislature found that with the adoption of the Sustainable Communities and Climate Protection Act of 2008 (SB 375), the state had signaled its commitment to encourage land use and transportation planning decisions and investments that reduce vehicle miles traveled and thereby contribute to the reduction of greenhouse gas emissions, as required by the California Global Warming Solutions Act of 2006 (Assembly Bill 32).

SB 743 started a process that fundamentally changes transportation impact analysis as part of CEQA compliance. Changes include the elimination of auto delay, LOS, and similar measures of vehicular capacity or traffic congestion as the basis for determining significant impacts. As part of the new CEQA Guidelines, the new criteria were designed to promote the reduction of greenhouse gas emissions, the development of multimodal transportation networks, and a diversity of land uses. The Office of Planning and Research (OPR) developed alternative metrics and thresholds based on Vehicle Miles Traveled (VMT). The guidelines were certified by the Secretary of the Natural Resources Agency in December 2018, and automobile delay, as described solely by LOS or similar measures of vehicular capacity or traffic congestion, could not be considered a significant impact on the environment. Agencies had until July 1, 2020, to adopt new VMT-based criteria.

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### TRANSPORTATION

The City's VMT-based significance criteria and methodology are detailed in the City's Transportation Assessment Guidelines, dated November 2020.

#### *California Fire Code*

The 2019 California Fire Code (California Code of Regulations Title 24, Part 9) sets requirements pertaining to fire safety and life safety, including for building materials and methods, fire protection systems in buildings, emergency access to buildings, and handling and storage of hazardous materials.

#### **Regional**

##### *Orange County Fire Authority Fire Prevention Guidelines*

The Orange County Fire Authority's (OCFA's) guideline for "Fire Master Plan for Commercial and Residential Development" (Guideline B-09) is a general guideline pertaining to the creation and maintenance of fire department access roadways, access walkways to and around buildings, and hydrant quantity and placement as required by the 2019 California Fire and Building Codes and as amended by local ordinance.

#### **Local**

##### *Laguna Niguel General Plan - Circulation Element*

The General Plan Circulation Element identifies transportation conditions in the City, including roadway configuration and capacities. In addition, the element identifies issues and opportunities, goals, policies, and actions related to circulation in the City. Please refer to Table 5.10-2 for a description of the Circulation Element policies and project consistency with these policies.

##### *Laguna Niguel Municipal Code*

The Laguna Niguel Municipal Code identifies land use categories, development standards, and other general provisions that ensure consistency between the Laguna Niguel General Plan and proposed development projects. The following provisions focus on transportation and traffic:

- **Title 7, Division 2, Article 2 (Standard Plans and Specifications).** Prescribes standard specifications for public works construction, including roadways, signals, lighting, and pavement markers.
- **Title 7, Division 3 (Improvement, Construction and Repair of Streets).** Regulations for excavation, filling, and obstruction of highways and the requirements for obtaining permits or a bond in lieu thereof to dig into, fill, or remove portions of City roadways.
- **Title 7, Division 4 (Traffic Ordinance).** Details development standards and regulations related to turning movements; vehicle size, weight, and load; bicycle, pedestrian, and skateboard facilities; on-street stopping, standing, and parking regulations; abandoned vehicles; and temporary street closures.
- **Title 11, Division 3 (Fire Protection and Explosives).** Adopts the 2019 California Fire Code by reference except such portions as are added, deleted, modified, or amended by the Municipal Code.

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The Laguna Niguel Municipal Code also identifies the following provisions focus on reduction of trips and Transportation Demand Management strategies:

- **Section 9-1-101 (Transportation Demand Management Policy).** New commercial, industrial, mixed-use development must promote use of alternate transportation modes, provide facilities necessary to encourage alternate methods of transportation, utilize existing local mechanisms and procedures for project review and permit processing to achieve reductions in vehicle trips, and promote coordinated implementation of strategies on a countywide basis to reduce transportation demand.

### 5.15.1.2 METHODOLOGY

#### Traffic Impact Analysis

As noted above, CEQA no longer considers auto delay or traffic congestion a potentially significant environmental impact. The Laguna Niguel General Plan, however, does include level of service (LOS) standards for traffic. A summary of the TIA analysis as it relates to General Plan consistency is included in Section 5.10, *Land Use and Planning*. Additionally, the LOS analysis is included in the TIA and presented in this EIR for informational purposes.

#### VMT Analysis

The City's Transportation Assessment Guidelines states that projects do not require a VMT analysis if they meet at least one of the following VMT screening criteria for land use projects:

- Small projects, that is, projects that would generate less than 500 vehicle trips per day
- Redevelopment projects
- Projects in a low VMT area
- Projects in transit priority areas
- Locally serving land use projects, which include less than 50,000 square feet of the following uses:
  - Libraries
  - Civic centers
  - Police/fire station
  - Community centers
  - Other locally serving civic uses
  - Public schools
  - Private schools with less than 120 students
  - Community colleges with less than 400 students
  - Daycare centers

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- Urgent care facilities
- Walk-in medical clinics
- Auto repair/tire shops
- Gas service station
- Gyms/health clubs
- Fitness studios
- Locally serving hotels (non-destination hotels)
- Locally serving assembly uses (places of worship, community organizations)
- Affordable housing projects

Low VMT areas and transit priority areas in the City are shown in Figure 5.15-1, *Laguna Niguel Low VMT Areas and Transit Priority Areas*. If a project does not screen out, a VMT analysis is required.

The City's guidelines establish different thresholds based on a project's land use category. For mixed-use projects, both the residential and nonresidential components of the project are analyzed separately. However, VMT reduction benefits due to internally captured trips and potentially other considerations that reduce VMT could be accounted for in the analysis.

For residential projects, a significant transportation impact would occur if the project's home-based VMT per capita exceeds the base year citywide average VMT per capita. For nonresidential projects, a significant transportation impact would occur if the project's employment VMT per employee exceeds the base year citywide average VMT per employee.

The citywide average VMT per capita and VMT per employee values are determined using the base year, 2016, Orange County Transportation Analysis Model (OCTAM) statistics. Ensuring land use development projects reduce VMT rates to be at or below the current base year citywide average will result in an overall decrease in citywide VMT and greenhouse gas emissions (Laguna Niguel 2020).

#### 5.15.1.3 EXISTING CONDITIONS

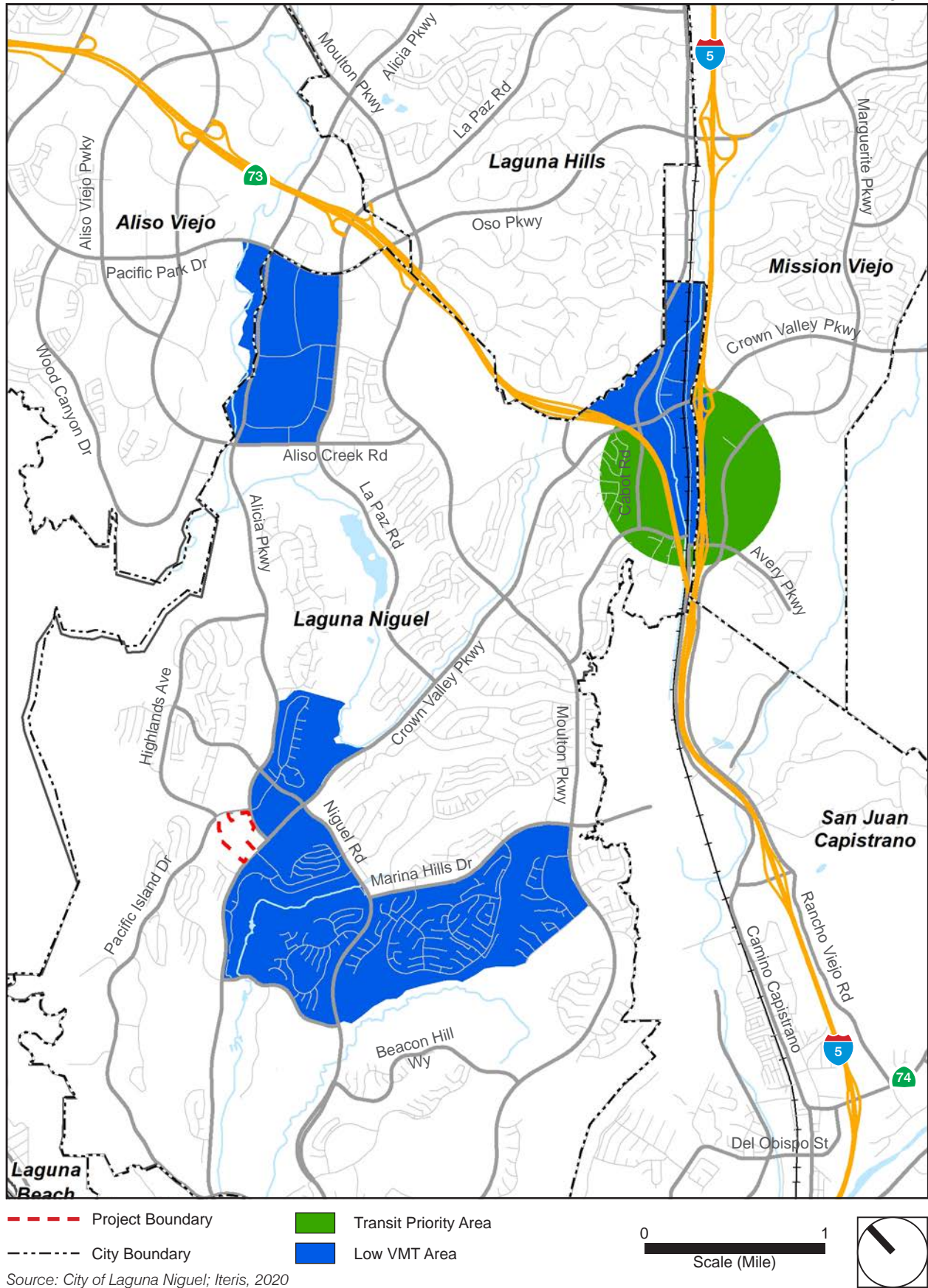
##### Surrounding Roadway Arterials

The areawide roadway network surrounding the project site is shown in Figure 5.15-1. The primary arterials bordering the project site are described below.

- **Crown Valley Parkway** is a six-lane Major Arterial with a speed limit of 45 miles per hour (mph), bike lanes in each direction, and sidewalks on both sides of the street near the study location. It provides access to the San Joaquin Hills Transportation Corridor, or SR-73, via Greenfield Drive, and to the San Diego Freeway (I-5) approximately three miles north of the project site. It also connects to the Pacific Coast Highway (SR-1), approximately three miles south of the project site.



Figure 5.15-1 - Laguna Niguel Low VMT Areas and Transit Priority Areas  
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- **Alicia Parkway** is a six-lane Major Arterial with a speed limit of 40 mph, bike lanes in each direction, and sidewalks on both sides of the street near the study location. It provides access to SR-73 via Aliso Creek Road and to I-5 approximately three miles north of the project site. Alicia Parkway terminates at Crown Valley Parkway at the northeast corner of the project site.
- **Pacific Island Drive** is a four-lane Primary Arterial with a speed limit of 45 mph, bike lanes in each direction, and sidewalks on both sides of the street near the study location. North of Alicia Parkway it transitions to a two-lane collector with a center two-way left-turn lane and changes names to Ivy Glenn Drive. There are no bike lanes on Ivy Glenn Drive. To the south, Pacific Island Drive changes names to Camino Del Avion at Crown Valley Parkway, where it continues as a four-lane divided roadway without bike lanes.

### Transit Service

The Orange County Transportation Authority (OCTA) provides local bus service in the vicinity of the project site. Currently, OCTA provides service to the study area via two bus routes—Routes 85 and 87. The bus stops closest to the project site are at the corner of Alicia Parkway and Pacific Island Drive (see Figure 5.15-2, *Pedestrian, Bicycle, and Public Transit Routes*). A sheltered bus stop is along the east side of Crown Valley Parkway, just north of Alicia Parkway, and an unsheltered bus stop is along the west side of Alicia Parkway, just south of Pacific Island Drive.

OCTA Route 85 travels primarily in a north-south direction along Crown Valley Parkway and provides service from Mission Viejo to Laguna Niguel. It originates at Mustang Run in Mission Viejo, travels via Marguerite Parkway and Crown Valley Parkway to an endpoint in Laguna Niguel at Niguel Road. Route 85 operates Monday to Friday from 5:35 am to 10:04 pm. There is no weekend service.

OCTA Route 87 travels generally in a north-south direction along Alicia Parkway and provides service from Rancho Santa Margarita to Laguna Niguel. It originates in Rancho Santa Margarita and travels via Alicia Parkway to an endpoint in Laguna Niguel at Crown Valley Parkway. Route 87 operates Monday to Friday from 5:59 am to 7:43 pm. There is no weekend service.

The Laguna Niguel / Mission Viejo Metrolink station is on Forbes Road just south of Crown Valley Parkway. The station is about three miles northeast of the project site and can be accessed by using OCTA Route 85 from the bus stop at the Crown Valley Parkway and Alicia Parkway intersection to the bus stop at the Crown Valley Parkway and Forbes Road intersection, followed by a half-mile walk to the Metrolink station. It takes approximately 34 minutes to travel between the Metrolink station and the project site via bus, including walk time.

### Bicycle and Pedestrian Facilities

The existing pedestrian and bicycle facilities along the project frontage connect the project site to various nearby residential, commercial, and recreational uses. The City recognizes that bicycle and pedestrian travel are an important component of the City's circulation system and encourages bicycle and pedestrian travel as alternative

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forms of transportation. Figure 5.15-2 shows the bicycle and pedestrian facilities in the vicinity of the project site.

Each of the roadways surrounding the project site (Pacific Island Drive, Crown Valley Parkway, and Alicia Parkway) is configured with Class II bike lanes. Class II is defined as a restricted lane within the right-of-way of a paved roadway for the exclusive or semi-exclusive use of bicycles. Each of these roadways is also fully improved with sidewalks and has marked crosswalks and pedestrian signals at each of the signalized intersections.

#### 5.15.2 Thresholds of Significance

According to Appendix G of the CEQA Guidelines and the City's CEQA Manual, a project would normally have a significant effect on the environment if the project would:

- T-1 Conflict with a program, plan, ordinance, or policy addressing the circulation system, including transit, roadway, bicycle, and pedestrian facilities.
- T-2 Conflict or be inconsistent with CEQA Guidelines § 15064.3, subdivision (b).
- T-3 Substantially increase hazards due to a geometric design feature (e.g., sharp curves or dangerous intersections) or incompatible uses (e.g., farm equipment).
- T-4 Result in inadequate emergency access.

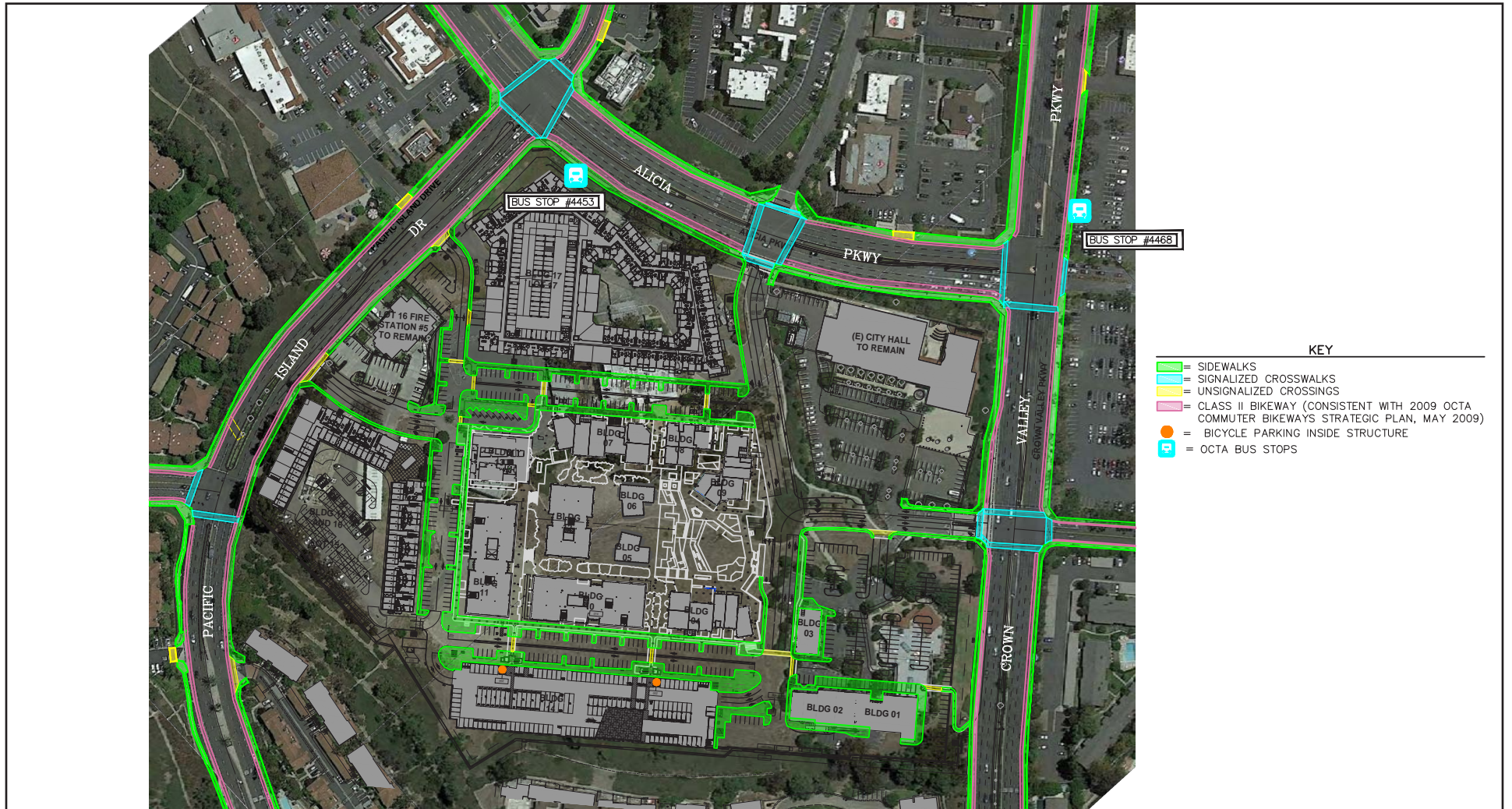
The City relies on the questions included in Appendix G as the thresholds of significance for assessing impacts on transportation, as augmented below.

The City adopted Transportation Assessment Guidelines (November 2020) include procedures and thresholds for both VMT analysis and Level of Service (LOS) Traffic Impact Studies. Projects subject to the Transportation Assessment Guidelines are required to have VMT and LOS studies prepared by a qualified traffic/transportation engineer. As specified in the City's Transportation Assessment Guidelines, the City requires LOS analysis for projects outside of CEQA, but as part of the project review and entitlement process.

Pursuant to SB 743 and CEQA Guidelines Section 15064.3, the reduction in LOS standards from a project is no longer defined as a valid CEQA impact and VMT is defined as the most appropriate measure of transportation impacts. The City's Transportation Assessment Guidelines establish procedures, methodology, and thresholds of significance for assessing VMT impacts.

The Laguna Niguel General Plan includes LOS policy standards for intersections within the City. Because General Plan consistency is often analyzed pursuant to CEQA, and consistency with LOS standards is not a determination of a significant impact, projects should be analyzed to determine if consistency with General Plan LOS standards would lead to the construction of traffic improvements, the construction of which would result in an impact to the environment. This is consistent with the following guidance from the Office of Planning and Research.

Figure 5.15-2 - Pedestrian, Bicycle, and Public Transit Routes  
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- KEY
- = SIDEWALKS
  - = SIGNALIZED CROSSWALKS
  - = UNSIGNALIZED CROSSINGS
  - = CLASS II BIKEWAY (CONSISTENT WITH 2009 OCTA COMMUTER BIKEWAYS STRATEGIC PLAN, MAY 2009)
  - = BICYCLE PARKING INSIDE STRUCTURE
  - = OCTA BUS STOPS

0  300  
Scale (Feet)



Source: Linscott, Law & Greenspan Engineers, 2021

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“Even if a general plan contains an LOS standard and a project is found to exceed that standard, that conflict should not be analyzed under CEQA. CEQA is focused on planning conflicts that lead to environmental impacts. (The Highway 68 Coalition v. County of Monterey (2017) 14 Cal.App.5th 883; see, e.g., Appendix G, IX(b) [asking whether the project will “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?”].) Auto delay, on its own, is no longer an environmental impact under CEQA. (See Pub. Resources Code, § 21099(b)(2).)”

Notwithstanding this guidance, project changes to LOS at an intersection(s) that result in a potential safety impact or hazardous condition should also be analyzed pursuant to CEQA.

### 5.15.3 Plans, Programs, and Policies

- PPP T-1      The proposed project’s construction activities will be conducted in accordance with the provision of traffic-control devices in compliance with the California Manual for Uniform Traffic Control Devices (MUTCD) to ensure traffic safety on public streets, highways, pedestrian walkways, and bikeways.
- PPP-T-2      The proposed project’s construction contractor will be required to comply with all City of Laguna Niguel standard conditions pertaining to construction including work hours, traffic control plan, haul route, and access. Where possible, construction related trips will be restricted to off-peak hours.
- PPP-T-3      The proposed project’s construction contractor will be required to obtain an oversized-vehicle transportation permit, if necessary, from Caltrans.
- PPP-T-4      The proposed project will implement fire protection requirements as detailed in Title 11, Division 3, of the City’s Municipal Code and the Orange County Fire Authority Fire Prevention Guidelines.

### 5.15.4 Environmental Impacts

#### 5.15.4.1 IMPACT ANALYSIS

It is anticipated that the proposed project would be built in a single phase spanning approximately 36 months for demolition and construction. To evaluate transportation impacts from the proposed project, two time frames were analyzed: Baseline Year 2016, which is the baseline year for the OCTAM model, to evaluate potential impacts in the near term; and Cumulative Year 2045, which combines long-range General Plan buildout conditions—with cumulative projects—and background traffic growth. The VMT analysis is based on traffic conditions for these scenarios:

- **Baseline Year 2016.** Pursuant to the City’s Transportation Guidelines, citywide average VMT per capita and VMT per employee values are determined using the Baseline Year 2016 OCTAM modeling statistics. The base 2016 scenario was updated with the project land uses to calculate project VMT and then compared to the City’s VMT significance criteria.

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- **Cumulative Year 2045.** Because the proposed project requires a General Plan Amendment, a Cumulative Year 2045 VMT analysis was also conducted. OCTAM's socioeconomic database for the future (2045) scenario was updated with the project land uses to calculate project VMT. Cumulative Year 2045 scenario VMT rates were then compared with the City's significance criteria.

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**Impact 5.15-1: The proposed project would not conflict with a program, plan, ordinance, or policy addressing the circulation system, including transit, roadway, bicycle, and pedestrian facilities. [Threshold T-1]**

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#### Operational Impacts VMT

The proposed project consists of 275 apartments, 81,451 square feet of offices, 34,340 square feet of retail, and 42,770 square feet of restaurant uses. As part of the proposed project the existing, approximately 14,400-square-foot library would be demolished and replaced with a larger, approximately 16,290-square-foot library. Most of the project site is currently undeveloped. Special events, including festivals, movie screenings, concerts, and farmers markets would typically be held on weekends. Small events held weekly could include yoga in the park with approximately 20 people; medium events held monthly could include movies in the park with approximately 100 people; and larger events held quarterly could include craft festivals or larger-scale food and wine events or even community-based seasonal events.

The proposed project is not in a low VMT area or a transit priority area (see Figure 5.15-1, *Laguna Niguel Low VMT Areas and Transit Priority Areas*). Additionally, the proposed project is neither an affordable housing project, nor could it be classified as a redevelopment. Most of the proposed project's land uses do not fall under the locally serving land uses listed in the Transportation Assessment Guidelines, and the proposed project exceeds the screening threshold of 50,000 square feet. Thus, the proposed project could not be screened out as a locally serving land use project. Also, since the proposed project's estimated daily trip generation is greater than 500, it does not meet the City's screening criteria for Small Projects. Therefore, the project could not be screened out of VMT analysis.

The proposed project's residential and nonresidential components were analyzed separately to identify whether any of the project components would have a significant VMT impact. Table 5.15-1, *Baseline Year 2016 Project and Citywide VMT*, shows the project's residential and nonresidential VMT for the base year scenario and corresponding City average. As shown in Table 5.15-1, both the residential and nonresidential components of the proposed project are estimated to generate a lower rate of VMT than the citywide average, and therefore would not result in a significant impact.



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**Table 5.15-1 Baseline Year 2016 Project and Citywide Average VMT**

Project Component	Citywide Average VMT/capita <sup>1</sup>	Project VMT/capita <sup>2</sup>	Percentage Difference
Residential	24.9	15.6	-37.4
Nonresidential	24.0	20.2	-15.8

Source: LL&G, August 2021.

<sup>1</sup> The citywide average VMT per capita and VMT per employee values are determined using the base year, 2016, Orange County Transportation Analysis Model (OCTAM) statistics.

<sup>2</sup> OCTAM's socioeconomic database for base year (2016) scenario were updated with the project land uses to calculate project VMT.

A cumulative VMT analysis was performed to assess the proposed project's VMT performance under the cumulative scenario (Year 2045). Table 5.15-2, *Cumulative Year 2045 Project and Citywide Average VMT*, shows the proposed project's residential and nonresidential VMT under the cumulative scenario. As shown in the table, the project would not have any significant impact under the cumulative scenario.

**Table 5.15-2 Cumulative Year 2045 Project and Citywide Average VMT**

Project Component	Citywide Average VMT/capita <sup>1</sup>	Project VMT/capita <sup>2</sup>	Percentage Difference
Residential	24.9	15.2	-39.0
Nonresidential	24.0	20.9	-12.9

Source: LL&G, August 2021.

<sup>1</sup> The citywide average VMT per capita and VMT per employee values are determined using the base year, 2016, Orange County Transportation Analysis Model (OCTAM) statistics.

<sup>2</sup> OCTAM's socioeconomic database for future (2045) scenario were updated with the project land uses to calculate project VMT. Year 2045 statistics include buildout conditions with inclusion of cumulative projects combined with background traffic growth.

The Transportation Guidelines allow VMT analyses to count internally captured trips for mixed-use projects as reductions in VMT. The analysis for the proposed project does not account for internally captured trips and is therefore conservative.

**Multimodal Transportation**

The project area is served by bus service and pedestrian and bicycle facilities that would provide transportation alternatives to the automobile (see Figure 5.15-2). Table 5.10-2 in Section 5.10, *Land Use and Planning*, summarizes the project's consistency with Laguna Niguel General Plan and Circulation Element policies. The Circulation Element includes one policy related to alternative transportation: Policy 3.1 states, "Encourage new development which facilitates transit services, provides for non-automobile circulation and minimizes vehicle miles traveled." It is the intent of the proposed project to provide future residents and visitors of the project area the opportunity to visit a number of stores, services, and/or restaurants before leaving the area, which would minimize VMT compared to a single-use development. Furthermore, as a mixed-use project, residents of the proposed project would be able to access the mix of on-site retailers, restaurants, services, and other project amenities without having to use an automobile. The proposed project also includes enhancements to bicycle lanes within the vicinity of the project site. Therefore, the proposed project would comply with Policy 3.1.

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As shown on Figure 5.15-2, each of the roadways surrounding the project site (Pacific Island Drive, Crown Valley Parkway, and Alicia Parkway) is configured with Class II bike lanes. Each of these roadways is also fully improved with sidewalks and has marked crosswalks and pedestrian signals at signalized intersections. The proposed project would protect the existing sidewalk along the project site's frontage, and if necessary, repair or reconstruct sidewalks along the frontage per the City's request. Additionally, the existing and proposed pedestrian network in the project vicinity connect directly to the existing Civic Center. The project's internal circulation plan includes pedestrian and multiuse walkways and corridors in and out of open space areas, connecting the Daily Needs Retail, Retail Village Core, Creative Office Space, Town Green, and Residential Village. As designed, walkways between the proposed structures would create a pedestrian-oriented environment by breaking up large blocks, providing more convenient connectivity throughout the project site, and shortening the walking distance to destinations.

The project site is also served by OCTA Routes 85 and 87. The bus stops closest to the project site are at the corner of Alicia Parkway and Pacific Island Drive (see Figure 5.15-2).

The proposed project includes enhancements to bicycle lanes and pedestrian crosswalks within the vicinity of the project site and would be consistent with the Circulation Element's goals and policies related to encouraging new development with alternative transportation features (i.e., transit, bicycle, and pedestrian facilities). Also, the proposed project would not substantially affect overall pedestrian circulation or the operations of nearby sidewalks or crosswalks or introduce features that would adversely affect circulation in the vicinity of the site. Project access would not displace a bus stop or decrease the performance or safety of a sidewalk, crosswalk, or bikeway. Therefore, the proposed project would not affect the use of alternative modes of transportation or conflict with policies, plans, or programs regarding public transit, bicycle, or pedestrian facilities.

*Level of Significance Before Mitigation:* Less than Significant.

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**Impact 5.15-2: The proposed project would not conflict or be inconsistent with CEQA Guidelines § 15064.3, subdivision (b). [Threshold T-2]**

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The VMT impact analysis was conducted according to the City's Transportation Assessment Guidelines. The findings indicate that both the residential and nonresidential components of the proposed project are expected to generate lower VMT rates than the established VMT significance thresholds under Baseline Year 2016 conditions and Cumulative Year 2045 conditions (see Tables 5.15-1 and 5.15-2). This is due to the mixed-use and regionally connected nature of the proposed project. The proposed project is also locally serving in that it provides more options for residents to live and work locally and encourages diverse housing and transportation options that reduce VMT. Additionally, the proposed project has multimodal amenities that enhance mobility and regional connectivity with multimodal connections that extend local access to regional networks for alternative modes of travel.

*Level of Significance Before Mitigation:* Less than Significant.

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**Impact 5.15-3: The proposed project would not substantially increase hazards due to a design feature (e.g., sharp curves or dangerous intersections) or incompatible uses (e.g., farm equipment). [Threshold T-3]**

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The project includes the following roadway improvements, which were considered in the TIA and with such improvements the project would achieve the City's LOS standards. These improvements along with project site access, traffic signals, queuing, and sight distance considerations would minimize potential transportation-related hazards.

- **Alicia Parkway at Pacific Island Drive/Ivy Glenn Drive.** Extend the northbound left-turn pocket 65 feet to provide at a minimum a total storage of 225 feet. This would require the removal of 65 feet of the existing raised median.
- **Alicia Parkway at Project Driveway No. 1/Town Center Drive.** Install a five-phase traffic signal with protective left-turn phasing on Alicia Parkway and stripe crosswalks on all four legs, inclusive of preemption for emergency vehicles and interconnection to adjacent signal. Restripe the eastbound approach (internal to Project site) to provide an exclusive eastbound left-turn lane.
- **Crown Valley Parkway at Alicia Parkway.** Extend the dual northbound left-turn lanes 30 feet each to provide at a minimum a total storage of 205 feet per lane (410 feet total for both lanes). This would require the removal of 30 feet of the existing raised median.
- **Crown Valley Parkway at Project Driveway No. 2/Hillhurst Drive.** Widen and restripe Crown Valley Parkway to provide an exclusive southbound right turn deceleration lane. Modify the existing traffic signal to convert the 5-phase traffic signal to a 6-phase traffic signal in order to provide split phasing in the east-west direction along Project Driveway No. 2/Hillhurst Drive. Extend the northbound left turn pocket 100 feet to provide at a minimum a total storage of 190 feet. This would require the removal of 100 feet of the existing raised median.

### Project Access Driveways

The project site is accessed by existing driveways on Crown Valley Parkway, Alicia Parkway, and Pacific Island Drive (see Figure 5.15-3, *Project Site Access Design Features*). An analysis of site access has been prepared using a traffic simulation model and established engineering procedures to review queuing and to ensure that adequate sight distance is provided.

- Primary vehicular and pedestrian access to the site is provided from an existing signalized intersection at Crown Valley Parkway and Hillhurst Drive/Civic Center Plaza. This driveway also serves as the primary vehicular and pedestrian access way for the Laguna Niguel City Hall. Hillhurst Drive provides access to single-family homes. An existing northbound left-turn pocket along Crown Valley Parkway provides access for northbound vehicles turning into the project site.
- A secondary access point would be from an existing unsignalized intersection at Alicia Parkway and Town Center Drive. Opposite the driveway is a private street (Town Center Drive) that provides access to a commercial center. An existing northbound left-turn pocket along Alicia Parkway provides access for northbound vehicles turning into the project site. This intersection is planned to be signalized with development of the proposed project.

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- Additional existing access points are off of Pacific Island Drive, to the east and west of Fire Station No 5. The two existing driveways along Pacific Island Drive are unsignalized. The westerly driveway along Pacific Island Drive is a three-leg intersection, and the easterly driveway is generally opposite the existing driveway to a commercial center (i.e., four-leg intersection). An existing two-way left-turn lane along Pacific Island Drive between the two driveways provides access for westbound vehicles turning into the westerly project driveway. Modifications are planned to Pacific Island Drive at Project Driveway No. 4 to restrict northbound (outbound) left turn movements onto Pacific Island Drive from the Project site and to restrict southbound (outbound) left turn movements onto Pacific Island Drive from the commercial center across from Driveway No. 4. These driveways are planned to remain unsignalized.

#### Traffic Signal Warrants

Traffic signal warrants were calculated and compared to thresholds detailed in Section 4C-04 Warrant 3, Peak Hour, of the California MUTCD (2014 edition). This method provides an indication of whether peak-hour traffic conditions or peak-hour traffic volume levels are or would be sufficient to justify installation of a traffic signal.

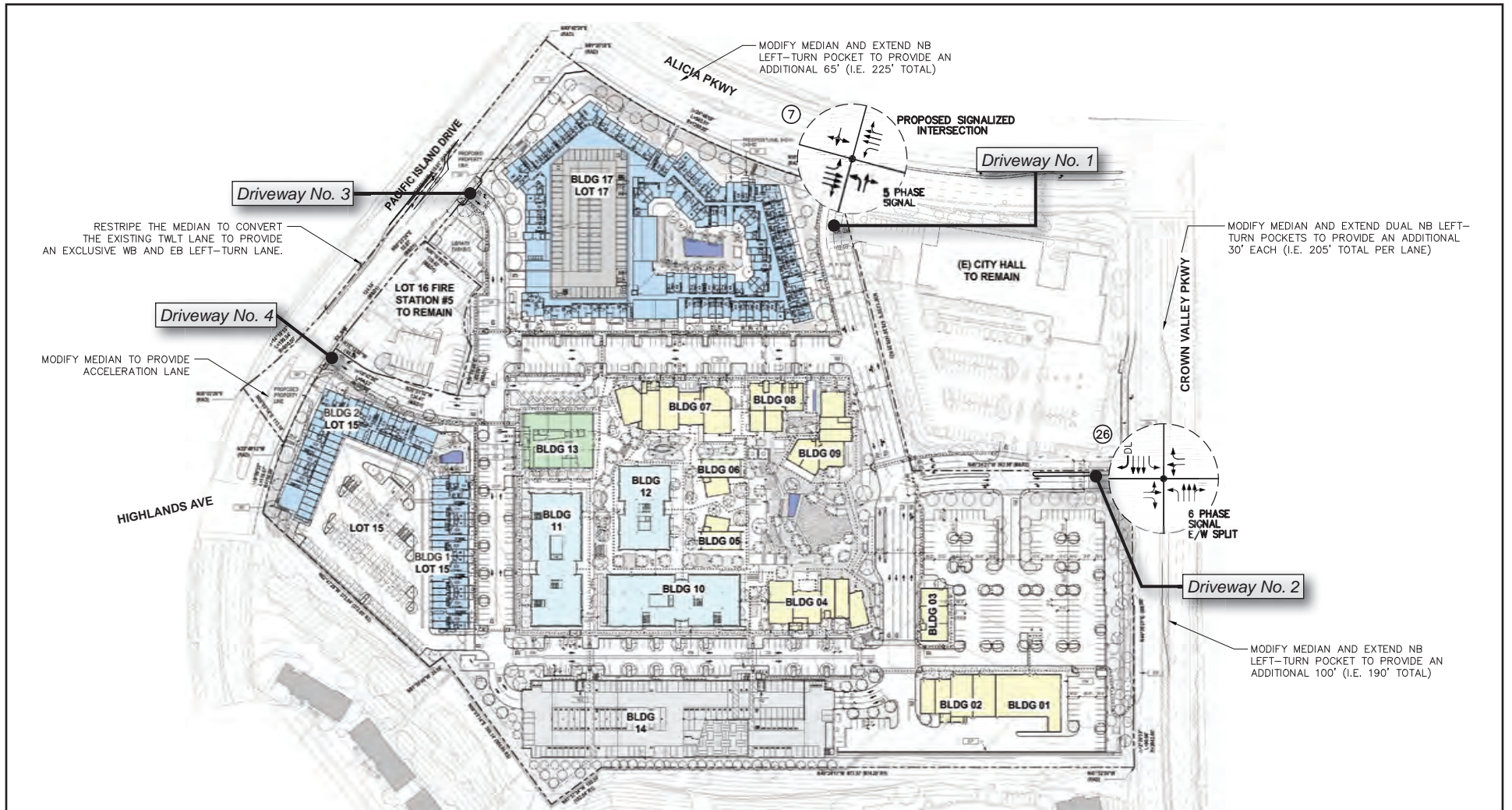
The results of the peak-hour traffic signal warrant analysis for Existing and Existing Plus Project traffic conditions for the intersection of Alicia Parkway at Town Center Drive showed traffic conditions that would exceed the peak hour vehicle delay thresholds of Warrant #3. Based on the results of the traffic signal warrant analysis, a five-phase traffic signal would be installed with protective left-turn phasing.

#### Sight Distance at Project Driveway Intersections

At intersections and project driveways, a substantially clear line of sight must be maintained between the driver of a vehicle waiting at the crossroad and the driver of an approaching vehicle. Sight distance is the continuous length of roadway visible to the user. A sight distance evaluation was not performed at the project driveways along Alicia Parkway and Crown Valley Parkway because both of these driveways are currently or proposed to be controlled with traffic signals with completion of the proposed project. Traffic signals create protected movements for vehicles turning onto the major roadway, eliminating the concern for adequate lines of sight. However, a field review of existing conditions on Alicia Parkway and Crown Valley Parkway indicates that the existing lines of sight are adequate at these two driveways.

The sight distance evaluation is based on the criteria and procedures in Caltrans' Highway Design Manual (HDM). Stopping sight distance was utilized for the evaluation. Stopping sight distance is defined in the Caltrans HDM as the distance required by the driver of a vehicle, traveling at a given speed, to maneuver their vehicle and avoid an object without radically altering their speed. Based on the criteria in Table 201.1 of the Caltrans HDM and a posted speed limit of 45 mph along Pacific Island Drive, a stopping sight distance of 360 feet is required for the two project driveways.

Figure 5.15-3 - Project Site Access Design Features  
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Source: Linscott, Law & Greenspan Engineers, 2022

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The sight distance evaluation at Project Driveways No. 3 and No. 4 indicated that the sight lines at these intersections are expected to be adequate provided obstructions are minimized. A field review of existing conditions west of both driveways indicates that obstructions such as landscaping/street trees would need to be removed to provide adequate sight distance. In addition, any future landscaping and/or hardscapes (e.g., monument signs) should be designed so that a driver's clear line of sight is not obstructed.

### Queuing Analysis for Project Access Locations

The traffic study for the proposed project included an analysis of peak hour stacking/storage lengths for the four project access points to determine whether traffic would “spill back” to the intersections of Alicia Parkway at Pacific Island Drive/Ivy Glenn Drive and Crown Valley Parkway at Alicia Parkway with the installation of a traffic signal at the intersection of Alicia Parkway at Town Center Drive.

A queuing evaluation was prepared for the following intersection:

1. Alicia Parkway at Pacific Island Drive/Ivy Glenn Drive
2. Alicia Parkway at Town Center Drive
3. Crown Valley Parkway at Alicia Parkway
4. Crown Valley Parkway at Hillhurst Drive
5. Project driveway No. 3 at Pacific Island Drive
6. Project driveway No. 4 at Pacific Island Drive

The queuing evaluation was conducted based on Year 2025 Cumulative Plus Project and Year 2040 Buildout Plus Project peak hour traffic volumes and used the Synchro 10.0/SimTraffic 95<sup>th</sup> percentile delay methodology. The evaluation showed that adequate storage is provided at all six locations under Year 2025 Cumulative Plus Project and Year 2040 Buildout Plus Project traffic conditions. To provide adequate storage at the northbound left-turn lane for the Crown Valley Parkway at Project Driveway No. 2/Hillhurst Drive, the following design feature was included to account for queuing impacts:

- **Crown Valley Parkway at Project Driveway No. 2/Hillhurst Drive.** Widen and restripe Crown Valley Parkway to provide an exclusive southbound right turn deceleration lane. Modify the existing traffic signal to convert the 5-phase traffic signal to a 6-phase traffic signal in order to provide split phasing in the east-west direction along Project Driveway No. 2/Hillhurst Drive. Extend the northbound left turn pocket 100 feet to provide at a minimum a total storage of 190 feet. This would require the removal of 100 feet of the existing raised median.

The proposed project would also:

- **Alicia Parkway at Pacific Island Drive/Ivy Glenn Drive.** Extend the northbound left-turn pocket 65 feet to provide at a minimum a total storage of 225 feet. This would require the removal of 65 feet of the existing raised median.

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- **Alicia Parkway at Project Driveway No. 1/Town Center Drive.** Install a five-phase traffic signal with protective left-turn phasing on Alicia Parkway and stripe crosswalks on all four legs, inclusive of preemption for emergency vehicles and interconnection to adjacent signal. Restripe the eastbound approach (internal to Project site) to provide an exclusive eastbound left-turn lane.
- **Crown Valley Parkway at Alicia Parkway.** Extend the dual northbound left-turn lanes 30 feet each to provide at a minimum a total storage of 205 feet per lane (410 feet total for both lanes). This would require the removal of 30 feet of the existing raised median.

### Pedestrian Access

Primary pedestrian access into the site would be from the same four points of vehicular entrance—Crown Valley Parkway, Alicia Parkway, and both entrances from Pacific Island Drive. As shown on Figure 5.15-3, each of the roadways surrounding the project site (Pacific Island Drive, Crown Valley Parkway, and Alicia Parkway) is fully improved with sidewalks and has marked crosswalks and pedestrian signals at signalized intersections. The project includes enhancements to pedestrian crosswalks in the vicinity of the project site. The proposed project would protect the existing sidewalk along the project site's frontage, and if necessary, repair or reconstruct sidewalks along the frontage per the City's request. Also, the proposed project would not substantially affect overall pedestrian circulation or the operations of nearby sidewalks or crosswalks or introduce features that would adversely affect pedestrian circulation in the vicinity of the site.

In summary, the proposed project has been designed to address potentially hazardous conditions. With the project access design features and circulation improvements, adequate site access and circulation would be provided, and the development of the site would not substantially increase hazards or incompatible uses.

***Level of Significance Before Mitigation:*** Less Than Significant.

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#### **Impact 5.15-4: The proposed project would not result in inadequate emergency access. [Threshold T-4]**

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Development of the proposed project would be required to incorporate all applicable design and safety requirements from the most current adopted fire codes, building codes, and nationally recognized fire and life safety standards, such as those outlined in Section 11-3 of the City's Municipal Code, which incorporates by reference the 2019 California Fire Code. The proposed project would also be required to provide adequate access for emergency vehicles per the California Fire Code. The City would be responsible for reviewing project compliance with related codes and standards prior to issuance of building permits.

Additionally, during the building plan check and development review process, the City would coordinate with OCFA and the Orange County Sheriff's Department (OCSD) to ensure that the necessary fire prevention and emergency response features are incorporated into the proposed project, and that adequate circulation and access (e.g., adequate turning radii for fire trucks) is provided in the traffic and circulation components of the proposed project.

Construction activities would be conducted in accordance with the California Manual on Uniform Traffic Control Devices (MUTCD) to ensure traffic safety on public streets, highways, pedestrian walkways, and



## 5. Environmental Analysis TRANSPORTATION

bikeways. Construction contractors would be required to comply with all City standard conditions pertaining to construction including work hours, traffic control plan, haul route, and access. Where possible, construction related trips would be restricted to off-peak hours. Construction activities associated with the proposed project, including staging and stockpiling, would occur within the project boundaries and not on any major arterials or highways that could be used during potential emergency situations.

Additionally, storage of construction materials and construction equipment—such as construction office trailers, cranes, storage containers, and trailers detached from vehicles—is prohibited on City property, including City streets, without a permit. Project construction and operation would comply with City requirements regarding storage on City property, including City streets. Construction material and equipment would be staged or stored on-site and would not interfere with emergency access to or evacuation from surrounding properties.

During project operation, Pacific Island Drive, Crown Valley Parkway, and Alicia Parkway would remain available as major evacuation routes. No policy or procedural changes to an existing risk management plan, emergency response plan, or evacuation plan would be required due to project implementation.

***Level of Significance Before Mitigation:*** With the implementation of PPP T-1 through PPP T-4, Impact 5.15-4 would be less than significant.

### 5.15.5 Cumulative Impacts

The analyses for Impacts 5.15-1 and 5.15-2 include the analyses of VMT for cumulative conditions.

Table 5.15-2 shows the VMT/capita for the proposed project based on future 2045 conditions. It is based on the future roadway system, cumulative projects and background traffic growth. As shown, the proposed project's cumulative VMT for residential and nonresidential uses would be 39.0 and 12.9 percent less than the significance thresholds.

Additionally, site access would be adequately designed and would not combine with other area traffic impacts to result in significant impacts. The proposed improvements to the transportation system would also not combine with other area traffic impacts. The proposed project has no impacts on pedestrian safety and therefore would not result in an overall, cumulative impact. Furthermore, the project and other cumulative projects would be required to comply with laws and regulations governing emergency access as described in Section 5.15.1.1. Therefore, cumulative impacts from past, present, and reasonably foreseeable future projects related to transportation would be less than significant after regulatory compliance.

### 5.15.6 Level of Significance Before Mitigation

Impacts 5.15-1, 5.15-2, and 5.15-3 are less than significant.

With the implementation of PPP T-1 through T-4 Impact 5.15-4 would be less than significant.

### 5.15.7 Mitigation Measures

No mitigation measures are required.

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#### 5.15.8 Level of Significance After Mitigation

Impacts would be less than significant and no mitigation measures are required.

#### 5.15.9 References

City of Laguna Niguel. November 2020. Transportation Assessment Guidelines.

<https://www.cityoflagunaniguel.org/DocumentCenter/View/19702/PH1-Vehicles-Miles-Traveled-VMT-Thresholds-Senate-Bill-743>.

## 5. Environmental Analysis

### 5.16 TRIBAL CULTURAL RESOURCES

This section of the Draft Environmental Impact Report (DEIR) evaluates the potential for implementation of the Laguna Niguel City Center Mixed Use Project (proposed project) to impact tribal cultural resources in the City of Laguna Niguel (City). The analysis in this section is based on the results of the Native American consultation conducted by the City for purposes of compliance with Assembly Bill 52 and Senate Bill 18, and the analysis is based on the following information:

- *Cultural Resources Summary for the Agora Downtown Laguna Niguel Project*, Cogstone, March 30, 2016.

A complete copy of this study is in the technical appendices of this Draft EIR (Appendix E)

#### 5.16.1 Environmental Setting

##### 5.16.1.1 REGULATORY BACKGROUND

###### **Federal**

###### *Archaeological Resources Protection Act*

The Archaeological Resources Protection Act of 1979 regulates the protection of archaeological resources and sites that are on federal lands and Indian lands.

###### *Native American Graves Protection and Repatriation Act*

The Native American Graves Protection and Repatriation Act is a federal law passed in 1990 that mandates museums and federal agencies to return certain Native American cultural items—such as human remains, funerary objects, sacred objects, or objects of cultural patrimony—to lineal descendants or culturally affiliated Indian tribes.

###### **State**

###### *California Public Resources Code*

Archaeological, paleontological, and historical sites are protected under a wide variety of state policies and regulations in the California Public Resources Code (PRC). In addition, cultural and paleontological resources are recognized as nonrenewable resources and receive protection under the PRC and CEQA.

PRC Sections 5020 to 5029.5 continued the former Historical Landmarks Advisory Committee as the State Historical Resources Commission. The commission oversees the administration of the California Register of Historical Resources and is responsible for designating State Historical Landmarks and Historical Points of Interest.

PRC Sections 5079 to 5079.65 define the functions and duties of the Office of Historic Preservation, which administers federal- and state-mandated historic preservation programs in California as well as the California Heritage Fund.

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### TRIBAL CULTURAL RESOURCES

PRC Sections 5097.9 to 5097.991 provide protection to Native American historical and cultural resources and sacred sites; identify the powers and duties of the Native American Heritage Commission (NAHC); require that descendants be notified when Native American human remains are discovered; and provide for treatment and disposition of human remains and associated grave goods.

#### *California Senate Bill 18*

Existing law provides limited protection for Native American prehistoric, archaeological, cultural, spiritual, and ceremonial places. These places may include sanctified cemeteries, religious, ceremonial sites, shrines, burial grounds, prehistoric ruins, archaeological or historic sites, Native American rock art inscriptions, or features of Native American historic, cultural, and sacred sites.

Senate Bill (SB) 18 on Traditional Tribal Cultural Places was signed into law in September 2004 and went into effect on March 1, 2005. It places new requirements upon local governments for developments within or near traditional tribal cultural places (TTCP). SB 18 requires local jurisdictions to provide opportunities for involvement of California Native Americans tribes in the land planning process for the purpose of preserving traditional tribal cultural places. The Final Tribal Guidelines recommend that the NAHC provide written information as soon as possible but no later than 30 days after receiving notice of the project to inform the lead agency if the proposed project is determined to be in proximity to a TTCP and another 90 days for tribes to respond to a local government if they want to consult with the local government to determine whether the project would have an adverse impact on the TTCP. There is no statutory limit on the consultation duration. Forty-five days before the action is publicly considered by the local government council, the local government refers action to agencies, following the CEQA public review time frame. The CEQA public distribution list may include tribes listed by the NAHC who have requested consultation or it may not. If consultation occurs and the NAHC, the tribe, and interested parties agree upon the mitigation measures necessary for the proposed project, it would be included in the project's EIR. If both the City and the tribe agree that adequate mitigation or preservation measures cannot be taken, then neither party is obligated to take action.

Per SB 18, the law requires a city or county to consult with the NAHC and any appropriate Native American tribe for the purpose of preserving relevant TTCP prior to the adoption, revision, amendment, or update of a city's or county's general plan. Although SB 18 does not specifically mention consultation or notice requirements for adoption or amendment of specific plans, the Final Tribal Guidelines advise that SB 18 requirements extend to specific plans as well, since state planning law requires local governments to use the same process for amendment or adoption of specific plans as general plans (defined in Government Code Section 65453). In addition, SB 18 provides a new definition of TTCP, requiring a traditional association of the site with Native American traditional beliefs, cultural practices, or ceremonies or the site must be shown to actually have been used for activities related to traditional beliefs, cultural practices, or ceremonies. Previously, the site was defined to require only an association with traditional beliefs, practices, lifeways, and ceremonial activities. In addition, SB 18 law also amended Civil Code Section 815.3 and adds California Native American tribes to the list of entities that can acquire and hold conservation easements for the purpose of protecting their cultural places.

## 5. Environmental Analysis TRIBAL CULTURAL RESOURCES

### *Assembly Bill 52*

The Native American Historic Resource Protection Act (AB 52) took effect July 1, 2015, and incorporates tribal consultation and analysis of impacts to tribal cultural resources (TCR) into the CEQA process. It requires TCRs to be analyzed like any other CEQA topic and establishes a consultation process for lead agencies and California tribes. Projects that require a Notice of Preparation of an EIR or Notice of Intent to adopt a ND or MND on or after July 1, 2015, are subject to AB 52. A significant impact on a TCR is considered a significant environmental impact, requiring feasible mitigation measures.

TCRs must have certain characteristics:

- 1) Sites, features, places, cultural landscapes (must be geographically defined), sacred places, and objects with cultural value to a California Native American tribe that are either included or determined to be eligible for inclusion in the California Register of Historic Resources or included in a local register of historical resources. (PRC Section 21074(a)(1))
- 2) The lead agency, supported by substantial evidence, chooses to treat the resource as a TCR. (PRC Section 21074(a)(2))

The first category requires that the TCR qualify as a historical resource according to PRC Section 5024.1. The second category gives the lead agency discretion to qualify that resource—under the conditions that it supports its determination with substantial evidence and considers the resource’s significance to a California tribe. The following is a brief outline of the process (PRC Sections 21080.3.1 to 3.3).

- 1) A California Native American tribe asks agencies in the geographic area with which it is traditionally and culturally affiliated to be notified about projects. Tribes must ask in writing.
- 2) Within 14 days of deciding to undertake a project or determining that a project application is complete, the lead agency must provide formal written notification to all tribes who have requested it.
- 3) A tribe must respond within 30 days of receiving the notification if it wishes to engage in consultation.
- 4) The lead agency must initiate consultation within 30 days of receiving the request from the tribe.
- 5) Consultation concludes when both parties have agreed on measures to mitigate or avoid a significant effect to a TCR, OR a party, after a reasonable effort in good faith, decides that mutual agreement cannot be reached.
- 6) Regardless of the outcome of consultation, the CEQA document must disclose significant impacts on TCRs and discuss feasible alternatives or mitigation that avoid or lessen the impact.

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### TRIBAL CULTURAL RESOURCES

#### *Health and Safety Code*

The discovery of human remains is regulated per California Health and Safety Code Section 7050.5, which states that:

In the event of discovery or recognition of any human remains in any location other than a dedicated cemetery, there shall be no further excavation...until the coroner...has determined...that the remains are not subject to...provisions of law concerning investigation of the circumstances, manner and cause of any death, and the recommendations concerning the treatment and disposition of the human remains have been made to the person responsible.... The coroner shall make his or her determination within two working days from the time the person responsible for the excavation, or his or her authorized representative, notifies the coroner of the discovery or recognition of the human remains. If the coroner determines that the remains are not subject to his or her authority and...has reason to believe that they are those of a Native American, he or she shall contact, by telephone within 24 hours, the Native American Heritage Commission.

#### **5.16.1.2 EXISTING CONDITIONS**

Refer to Section 5.4, *Cultural Resources*, of this EIR for further discussion of the tribal cultural resources environmental setting.

#### **Natural Setting**

The project site is in southern Orange County within the cismontane portion of the Peninsular Ranges geomorphic province of southern California. The Peninsular Ranges are formed by the San Jacinto Mountains, Santa Rosa Mountains, and Laguna Mountains through the San Joaquin Hills.

Aliso Creek, north of the project site, flows northeast-southwest; Sulphur Creek, located northeast of the project site, also flows northeast-southwest; and Salt Creek, located south of the site, flows southerly.

The site elevation ranges from approximately 305 feet above mean sea level in the southeast corner to approximately 370 feet in the western portion of the site with an average grade of 4.5 percent. An east-west ridgeline runs throughout the northern third of the property at an elevation of 370 feet.

The majority of the site consists of sedimentary deposits of the marine Late Miocene Capistrano Formation. Portions of the lower-lying northeastern project area may have surface deposits of younger terrestrial Quaternary Alluvium (Orange 2008).

#### **Cultural Setting**

Laguna Niguel, including the project site, is situated in a region that was inhabited by the Luiseño and Gabrieleño Native American groups. The Luiseño occupied approximately 1,500 square miles of the southern California coast—from the Santiago Peak to the north, the Palomar Mountains to the east, and San Luis Rey River to the south.

The Luiseño and the Gabrieleño have a history of interaction and border one another's territories at Aliso Creek just north of the project site. Gabrieleño territory encompassed over 1,500 square miles and included

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### TRIBAL CULTURAL RESOURCES

the San Fernando Valley, San Gabriel Valley, and Los Angeles-Santa Ana River Plain. They also occupied the islands of Santa Catalina, San Clemente, and San Nicholas (Orange 2008).

#### Archaeological Resources

The project footprint is inclusive of a previously proposed project, the AGORA Arts District Downtown (AGORA) project, which was not implemented. A cultural resources study was completed for the AGORA project, which is now being used for the proposed project. The study included a search for archeological and historical records by Cogstone on January 26, 2016, at the South Central Coast Information Center, California State University at Fullerton. The records search covered a one-mile radius around the project boundaries. It found 25 cultural resources investigations that have been completed within a one-mile radius of the project area. Of these, four investigations included a portion of the project area, and two are within the project boundaries (see Table 5.16-1).

**Table 5.16-1 Previously Recorded Resources within a One-Mile Radius of the Project Area**

Trinomial	Description	Year	Distance from Project Site
CA-ORA-33	Prehistoric shell midden site with manos, metate fragments, a stone pendant, scrapers, and choppers present. Test excavations in 1960 concluded that the site was a seasonal camp. Location covered by urban built environment.	1960	Within project site; at southern boundary
CA-ORA-131	Prehistoric site. The site record contains minimal details except to note that surface finds indicate that the site is a good prospect for excavation and that the site was destroyed in 1976. Location covered by urban built environment.	1963	Within project site; at eastern boundary
CA-ORA-505	Prehistoric site consisting of a dark midden with flake waste.	1975	Within 1 mile
CA-ORA-539	Prehistoric site consisting of a quartz schist slab metate	1976	Within 0.5 mile

Source: Cogstone 2016.

CA-ORA-33 was recorded in 1960 as a prehistoric shell midden site with manos, metate fragments, a stone pendant, scrapers, and choppers. Test excavations in 1960 concluded that the site was a seasonal camp. It is at the southern boundary of the site in an area currently developed as terraced parking lots leading upslope to the existing courthouse facility. Given the prior grading activities that occurred to build the parking lots, it is unlikely that any portion of the site has been preserved.

CA-ORA-131 was recorded in 1963 as a prehistoric site. The site record contains minimal details except to note that surface finds indicate that the site is a good prospect for excavation and that it was destroyed in 1976. The site was at the eastern boundary of the project site. Significant grading and filling previously occurred in this area to level the land for the existing library. The prior grading and filling that occurred in the location of CA-ORA-131 makes it improbable that any portion of the site is preserved. The locations of these two known sites are currently completely developed.

Two additional cultural resources, CA-ORA-505 and CA-ORA-539, are within the one-mile search radius but outside the project site. CA-ORA-505 is a prehistoric site consisting of a dark midden with flake waste. CA-ORA-539 is a prehistoric site consisting of a quartz schist slab metate.

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### TRIBAL CULTURAL RESOURCES

#### SB 18 and AB 52 Consultation

In accordance with AB 52 and SB 18 requirements for the former AGORA project, the City sent invitation letters to representatives of the nine Native American contacts provided by the NAHC on January 14, 2016, formally inviting tribes to consult with the City on the AGORA project. The intent of the consultations are to provide an opportunity for interested Native American contacts to work with the City during the project planning process to identify and protect tribal cultural resources. Joyce Stanfield Perry, Tribal Manager of the Juaneño Band of Mission Indians Acjachemen Nation, responded on March 9, 2016, stating that the tribe has reviewed the project documents and has no concerns regarding the project and its impacts on their cultural resources (see Appendix M). No other tribes responded to the City's notification letter in 2016 for the former AGORA project.

In accordance with AB 52 and SB 18 requirements for the proposed project, the City requested a Sacred Lands File search from the NAHC and received a response on October 8, 2019, provided in Appendix M of this EIR. The NAHC responded with an updated consultation list of tribes with traditional lands or cultural places within the boundaries of the project and Orange County. The City sent letters to the 24 tribal contacts on the NAHC list on October 25, 2019, notifying them of the proposed project and requesting comments or concerns for the project area. Two tribes sent responses: the Pala Band of Mission Indians and the Agua Caliente Band of Cahuilla Indians.

In a letter dated December 4, 2019, the Pala Band of Mission Indians stated that a check of their cultural registry revealed that this project is not within the recognized Pala Indian Reservation or the boundaries of the territory that the tribe considers its Traditional Use Area. Therefore, they defer to the other tribes in the area, and the letter concluded their consultation effort (see Appendix M of this EIR).

In an email received by the City on November 6, 2019, the Agua Caliente Band of Cahuilla Indians noted that a check of the Tribal Historic preservation office's cultural registry revealed that this project is not located within the Tribe's Traditional Use Area. Therefore, they defer to the other tribes in the area, and the letter concluded their consultation effort.

No other comments were received for the proposed project.

#### 5.16.2 Thresholds of Significance

According to Appendix G of the CEQA Guidelines and the City's CEQA Manual, a project would normally have a significant effect on the environment if the project would:

- TCR-1 Cause a substantial adverse change in the significance of a tribal cultural resource, defined in Public Resources Code § 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), or



## 5. Environmental Analysis TRIBAL CULTURAL RESOURCES

- 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 § 5024.1. In applying the criteria set forth in subdivision (c) of Public Resource Code § 5024.1, the lead agency shall consider the significance of the resource to a California Native American tribe.

### 5.16.3 Plans, Programs, and Policies

PPP CUL-1 California Health and Safety Code Section 7050.5 requires that if human remains are discovered within the proposed project site, disturbance of the site shall halt and remain halted until the coroner has investigated the circumstances, manner, and cause of any death, and the recommendations concerning the treatment and disposition of the human remains have been made to the person responsible for the excavation, or to his or her authorized representative. If the coroner determines that the remains are not subject to his or her authority and if the coroner recognizes or has reason to believe the human remains to be those of a Native American, he or she shall contact, by telephone within 24 hours, the Native American Heritage Commission.

### 5.16.4 Environmental Impacts

#### 5.16.4.1 IMPACT ANALYSIS

The following impact analysis addresses thresholds of significance. The applicable thresholds are identified in brackets after the impact statement.

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**Impact 5.16-1: The proposed project would not cause a substantial adverse change in the significance of a tribal cultural resource 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). [Threshold TCR-1.i]**

**ii) determined by the lead agency to be significant pursuant to criteria in Public Resources Code section 5024.1(c). [Threshold TCR-1.ii]**

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A Sacred Land Files request was submitted to the NAHC to inquire about the presence/absence of sacred or religious sites in the vicinity of the project area for the AGORA project. On January 28, 2016, the NAHC responded that there are no sacred lands within the project area or a half-mile radius. On October 8, 2019, the NAHC sent an updated consultation list of tribes with traditional lands or cultural places within the boundaries of Orange County. In accordance with AB 52 and SB 18 requirements, on October 25, 2019, the City sent certified letters to 24 Native American contacts listed by the NAHC notifying them of the proposed project and requesting comments or concerns for the project area. The City received letter responses from the Pala Band of Mission Indians and Agua Caliente Band of Cahuilla Indians (see Appendix M). Follow-up calls were conducted by the City for all other Native American contacts. In total, two tribes responded—the Pala Band of Mission Indians and the Agua Caliente Band of Cahuilla Indians. As described in 5.16.1.2, *Existing Conditions*,

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### TRIBAL CULTURAL RESOURCES

the tribes did not identify tribal cultural resources within the project area, and they deferred to tribal groups in closer proximity to the project site.

There are two recorded cultural resources in the project site—CA-ORA-33 and CA-ORA-131. CA-ORA-33 was recorded in 1960 as a prehistoric shell midden site determined to be a seasonal camp. Site surveys in 2008 yielded no trace of the site and noted that the site is within the existing terraced parking lots leading upslope to the current courthouse facility. Given the grading activities to build the existing parking lots, it is unlikely that any portion of the site survived. CA-ORA-131 was recorded in 1963 as a prehistoric site and was recorded as being destroyed in 1976. Site surveys in 2008 found that significant grading and filling took place in this area to level the land for the current library, making it improbable that any portion of the site was preserved. Overall, the two sites previously present in the project site no longer exist, but are completely covered by the urban built environment.

Although the known subsurface resources identified within the project site were determined to no longer exist, there is potential for unknown subsurface resources that qualify as tribal cultural resources in the project site. The presence of previously recorded prehistoric archaeological sites in the vicinity suggests the potential for undiscovered archaeological resources within the project site. If buried significant tribal cultural resources are encountered during project construction, significant impacts could occur.

*Level of Significance before Mitigation:* Potentially Significant.

#### 5.16.5 Cumulative Impacts

Cumulative impacts to tribal cultural resources occur when the impacts of the proposed project, in conjunction with past, existing, and other foreseeable projects and development in the region, result in multiple and/or cumulative impacts to tribal cultural resources in the area. Each future project in the City will be required to evaluate that project's impacts to site-specific tribal cultural resources as part of the CEQA review, including tribal consultation as required by AB 52 and SB 18, if applicable. Where significant impacts to tribal cultural resources are identified, projects would be required to either avoid impacts or implement feasible mitigation measures to reduce impacts. Additionally, the project is located in a previously disturbed area with no known tribal cultural resources and mitigation measures to prevent impacts to unknown tribal cultural resources and thus would not cause a cumulatively considerable impact.

#### 5.16.6 Level of Significance Before Mitigation

Upon implementation of regulatory requirements and standard conditions of approval, these impacts would be **potentially significant**:

- **Impact 5.16-1:** Development of the proposed project has the potential to unearth unknown tribal cultural resources.

## 5. Environmental Analysis TRIBAL CULTURAL RESOURCES

### 5.16.7 Mitigation Measures

Implementation of Mitigation Measure CUL-1 would be required (see Section 5.4, *Cultural Resources*, for full mitigation text).

### 5.16.8 Level of Significance After Mitigation

With incorporation of mitigation measure CUL-1, Impact 5.16-1 would be less than significant.

### 5.16.9 References

Cogstone. 2016, March 30. Cultural Resources Summary for the Agora Downtown Laguna Niguel Project.

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### 5.17 UTILITIES AND SERVICE SYSTEMS

This section of the Draft Environmental Impact Report (DEIR) discusses the current conditions for utility providers, including water, wastewater, stormwater, solid waste, electricity, and natural gas services, and the effects of the Laguna Niguel City Center Mixed Use Project (proposed project) on these providers. The analysis in this section is based, in part, on the following technical studies:

- *Town Center Water Supply Assessment*, Dudek, December 2019.
- *Laguna Niguel Town Center Project, Water Supply Assessment*, written correspondence from Matt Collings, Assistant General Manager of Moulton Niguel Water District, November 15, 2021.

A complete copy of this study and the letter from the Moulton Niguel Water District (MNWD) are in the technical appendices to this Draft EIR (Appendices N1 and N2).

#### 5.17.1 Wastewater Treatment and Collection

##### 5.17.1.1 ENVIRONMENTAL SETTING

###### Regulatory Background

###### *Federal*

###### *Clean Water Act*

The Clean Water Act establishes regulations to control the discharge of pollutants into the waters of the United States and regulates water quality standards for surface waters (US Code, Title 33, Section 1251 et seq.). Under the act, the US Environment Protection Agency is authorized to set wastewater standards and runs the National Pollutant Discharge Elimination System (NPDES) permit program. Under the NPDES program, permits are required for all new developments that discharge directly into waters of the United States. The federal Clean Water Act requires wastewater treatment of all effluent before it is discharged into surface waters.

###### *General Pretreatment Regulations for Existing and New Sources of Pollution*

The General Pretreatment Regulations establish responsibilities of federal, State, and local government, industry, and the public to implement National Pretreatment Standards to control pollutants that pass through or interfere with treatment processes in publicly owned treatment works or that may contaminate sewage sludge. Pretreatment standards are pollutant discharge limits which apply to industrial users.

###### *State*

###### *State Water Resources Control Board: Statewide General Waste Discharge Requirements*

The General Waste Discharge Requirements specify that all federal and state agencies, municipalities, counties, districts, and other public entities need to develop a sewer master plan if they own or operate sanitary sewer systems greater than one mile in length that collect and/or convey untreated or partially treated wastewater to a publicly owned treatment facility in California. The plan evaluates existing sewer collection systems and

## 5. Environmental Analysis

### UTILITIES AND SERVICE SYSTEMS

provides a framework for undertaking the construction of new and replacement facilities in order to maintain proper levels of service. The master plan includes inflow and infiltration studies to analyze flow monitoring and water use data, a capacity assurance plan to analyze the existing system with existing land use and unit flow factors, a condition assessment and sewer system rehabilitation plan, and a financial plan with recommended capital improvements and financial models.

#### *Regional*

##### *South Orange County Wastewater Authority NPDES Permits*

Wastewater discharge requirements for the South Orange County Wastewater Authority (SOCWA) wastewater treatment plants are detailed in NPDES No. CA0107417 (Order No. R9-2012-0012 as amended by Order No. R9-2014-0105 and Order No. R9-2017-0013) and NPDES No. CA0107611 (Order No. R9-2012-0013). The permits include the conditions needed to meet minimum applicable technology-based requirements. The permit includes limitations more stringent than applicable federal technology-based requirements where necessary to achieve the required water quality standards.

##### *South Orange County Wastewater Authority Ordinance 2015-1*

The purpose of the SOCWA Waste Discharge Pretreatment and Source Control Program (County ordinance 2015-1) is to comply with the federal pretreatment standards. The ordinance prevents the introduction of pollutants that may interfere with sewerage facilities operations and prevent biosolids contamination.

The ordinance details rules and regulation related to fats, oils, and grease and gives the wastewater district enforcement tools, including a permit system, to control these substances coming into the sewer system.

##### *Moulton Niguel Water District Standards Specifications*

The MNWD “Standard Specifications for Construction of Potable Water, Recycled Water, and Wastewater Facilities” details design criteria for water mains, recycled water facilities, and sewer pipes. The document gives applicants (developer/builder) a general understanding of the design criteria for sewer facilities associated with new development or redevelopment projects (MNWD 2018).

#### *Local*

##### *Laguna Niguel Municipal Code*

The Municipal Code identifies land use categories, development standards, and other general provisions that ensure consistency between the City’s General Plan and proposed development projects. The following provision from the Municipal Code regulates wastewater services:

- **Division 4 (Sanitary Sewer Collection Systems).** This division regulates the City’s sanitary sewer collection system with detailed sewer design criteria and plan check requirements. Sewer construction standards are also detailed, including allowed material types, earthwork requirements, manhole standards, and inspections.

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### UTILITIES AND SERVICE SYSTEM

#### Existing Conditions

The MNWD provides sewer service to Laguna Niguel, including the project site. Wastewater from the MNWD's service area is treated at three SOCWA treatment plants and the 3A Treatment Plant, which is jointly owned by Santa Margarita Water District and MNWD. The treatment plants are listed in Table 5.17-1.

**Table 5.17-1 SOCWA Wastewater Treatment Facilities**

Facility and City	Design Capacity (mgd)	Average Daily Flows (mgd)	Residual Capacity (mgd)
Regional Treatment Plant, Laguna Niguel	12	8.5	3.5
J. B. Latham Treatment Plant, Dana Point	13	6.7	6.3
3A Treatment Plant, Mission Viejo	6	2	4
Coastal Treatment Plant, Laguna Beach	6.7	2.9	3.8
<b>Total</b>	<b>37.7</b>	<b>19.4</b>	<b>18.3</b>

Sources: SOCWA 2019a, 2019b, 2019c; San Diego RWQCB 2012; SMWD 2019; Emami 2020.

Notes: mgd = million gallons per day

Two existing land uses generate wastewater on-site: the county maintenance yard and the Laguna Niguel Library. It is assumed that wastewater generation is 95 percent of indoor water demand.<sup>1</sup> The library is a one-story building of approximately 14,400 square feet; therefore, wastewater generation by the library is estimated at 862 gallons per day (gpd). The county maintenance yard consists of two single-story buildings—one permanent, one modular—totaling about 9,100 square feet. Wastewater generated by the maintenance yard is approximately 778 gpd. Therefore, the total wastewater generation on-site is estimated at 1,668 gpd, as shown in Table 5.17-2.

**Table 5.17-2 Estimated Existing Wastewater Generation On-Site**

Land Use	Size (SF)	Wastewater Generation (gpd)	
		Per 1,000 SF <sup>1</sup>	Total
Library	14,400	61.8	890
County Maintenance Yard	9,100	85.5 <sup>2</sup>	778
<b>Total</b>	<b>23,050</b>	—	<b>1,668</b>

Source: Dudek 2019.

<sup>1</sup> Wastewater generation factors are 95 percent of the water demand rates specified in the water supply assessment.

<sup>2</sup> The generation factor is for retail use; no generation factor for maintenance facilities is provided in the water supply assessment.

#### 5.17.1.2 THRESHOLDS OF SIGNIFICANCE

According to Appendix G of the CEQA Guidelines and the City's CEQA Manual, a project would normally have a significant effect on the environment if the project:

<sup>1</sup> The 95 percent factor is used to account for leaks in the sewer pipes that transport the wastewater to the sewage treatment plant.

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- U-1            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.
- U-3            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.

#### 5.17.1.3 PLANS, PROGRAMS, AND POLICIES

- PPP USS-1      The proposed project will be designed, constructed, and operated in accordance with SOCWA Ordinance 2015-1. All wastewater discharges into SOCWA facilities shall be required to comply with the discharge standards to protect the public sewage system.
- PPP USS-2      The proposed project's sewer infrastructure improvements will be designed, constructed, and operated in accordance with the applicable regulations in the Moulton Niguel Water District's standard specifications.

#### 5.17.1.4 ENVIRONMENTAL IMPACTS

##### Impact Analysis

The following impact analysis addresses the thresholds of significance. The applicable thresholds are identified in brackets after the impact statement.

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**Impact 5.17-1: Existing facilities would be able to accommodate project-generated wastewater demands. [Threshold U-1]**

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Wastewater generation at project buildout is estimated to be approximately 98,665 gpd, as shown in Table 5.17-3. Wastewater generation factors for the proposed project were derived from water demand factors in the water supply assessment (WSA) based on the assumption that wastewater generation is approximately 95 percent of indoor water demand.

The existing land uses on-site are estimated to generate about 1,668 gpd of wastewater (see Table 5.17-2). The Laguna Niguel Library and the county maintenance yard would be demolished as part of the project. Therefore, the estimated net wastewater generation at project buildout would be 96,997 gpd.



5. Environmental Analysis  
UTILITIES AND SERVICE SYSTEM**Table 5.17-3 Estimated Wastewater Generation**

Land Use	Quantity	Wastewater Generation (gpd)	
		Per Unit for Residential Per 1,000 SF for All Other Land Uses <sup>1</sup>	Total
Multifamily Residential	275 units	171	47,025
Commercial/Retail	34,340 SF	85.5	2,936
Library	16,290 SF	61.8	1,007
Office	81,451 SF	61.8	5,034
Restaurant	42,770 SF	997.5	42,663
		<b>Total-</b>	<b>98,665</b>
<b>Existing Wastewater Generation</b>	-	-	<b>(1,668)</b>
<b>Net Increase</b>	-	-	<b>96,997</b>

Source: Dudek 2019.

<sup>1</sup> Wastewater generation factors are 95 percent of the water demand rates specified in the WSA.

The SOCWA Regional Treatment Plant, which has a residual capacity of 3.5 million gallons per day (mgd), would treat the wastewater generated by the project site. This treatment plant has sufficient residual capacity for project-generated wastewater, and proposed project buildout would not require construction of new or expanded wastewater treatment facilities. Impacts would be less than significant.

MNWD has no deficiencies in the sewer system with regularly planned capital improvement projects. Furthermore, MNWD has enough capacity to serve the proposed project (Emami 2020).

**Level of Significance Before Mitigation:** Less than significant.

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**Impact 5.17-2: Project-generated wastewater could be adequately treated by the wastewater service provider for the project. [Threshold U-3]**

---

As detailed above, the proposed project would conservatively generate a net increase of 96,997 gpd of wastewater (see Table 5.17-3). The four SOCWA wastewater treatment plants have 18.3 mgd of residual capacity to treat project-generated wastewater. SOCWA would not require the construction or expansion of existing facilities, and impacts would be less than significant.

Furthermore, the treatment plants are required by federal and state law to meet applicable standards of treatment plant discharge requirements subject to Order No. R9-2012-0013 NPDES No. CA0107611. The permit includes the conditions needed to meet minimum applicable technology-based requirements. The NPDES permit regulates the amount and type of pollutants that the system can discharge into receiving waters. The treatment plants are operating and would continue to operate in compliance with state waste discharge requirements and federal NPDES permit requirements, as described in the NPDES permit and order. Furthermore, the proposed project would comply with SOCWA Ordinance 2015-1, and sewer infrastructure improvements would be designed, constructed, and operated in accordance with the applicable regulations in the MNWD Standard Specifications.

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### UTILITIES AND SERVICE SYSTEMS

Therefore, the additional wastewater (quantity and type) that would be generated by the proposed project would not impede the treatment plants' ability to continue to meet their wastewater treatment requirements. Impacts on wastewater treatment would be less than significant.

***Level of Significance before Mitigation:*** With implementation of PPP US-1 and PPP US-2, Impact 5.17-2 would be less than significant.

#### 5.17.1.5 CUMULATIVE IMPACTS

Other projects in SOCWA's service area would generate increased population and employment, thus increasing wastewater generation. SOCWA's service area is roughly similar to two areas of Orange County for which demographic projections were made in the "Orange County Projections 2014: Modified" prepared by the Center for Demographic Research at California State University, Fullerton.<sup>2</sup> The populations of the two regions combined are forecast to increase from 605,049 in 2015 to 675,287 in 2040, an increase of 70,238 or 11.6 percent. Employment is forecast to increase in the two combined areas by about 41,264, or 17.6 percent, between 2015 and 2040 (CDR 2016).

The total residual capacity at SOCWA's four wastewater treatment plants is about 18.3 mgd, that is, approximately 49 percent of the combined total capacity of the four facilities. The service population for the area served by the four treatment plants prepared by SOCWA includes the combination of residents and employees and totals 839,549 in 2015 and 951,051 in 2040. The net increase of residents plus employees between 2015 and 2040 is estimated at about 13.3 percent; thus, wastewater generation in SOCWA's service area is estimated to increase by about 13.3 percent between 2015 and 2040.<sup>3</sup> Thus, there is adequate wastewater treatment capacity in the region to accommodate wastewater generation from other existing and foreseeable future projects in combination with the proposed project, and cumulative impacts would be less than significant. Project impacts would not be cumulatively considerable.

#### 5.17.1.6 LEVEL OF SIGNIFICANCE BEFORE MITIGATION

Upon implementation of regulatory requirements and standard conditions of approval, the following impacts would be less than significant: 5.17-1 and 5.17-2.

#### 5.17.1.7 MITIGATION MEASURES

No mitigation measures are required.

#### 5.17.1.8 LEVEL OF SIGNIFICANCE AFTER MITIGATION

Impacts would be less than significant and no mitigation measures are required.

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<sup>2</sup> The two areas, C-43 and D-40, extend from the east county boundary to the east boundary of the city of Irvine and include a small area in the southeast end of the city of Newport Beach (CDR 2012).

<sup>3</sup> Service population (residents plus employees) was estimated as 839,549 in 2015 and 951,051 in 2040, a net increase of 111,502. The approximately 13.3 percent increase in service population equals 111,502/839,549.

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### 5.17.2 Water Supply and Distribution Systems

#### 5.17.2.1 ENVIRONMENTAL SETTING

##### Regulatory Background

###### *Federal*

###### *Clean Water Act*

The Federal Clean Water Act (CWA) establishes regulatory requirements for potable water supplies, including raw and treated water quality criteria.

###### *State*

###### *Urban Water Management Planning Act*

The Urban Water Management Planning Act of 1983 (Water Code Sections 10610 et seq.) requires water suppliers to:

- Plan for water supply and assess reliability of each source of water over a 20-year period in 5-year increments.
- Identify and quantify adequate water supplies, including recycled water, for existing and future demands in normal, single-dry, and multiple-dry years.
- Implement conservation and the efficient use of urban water supplies. Significant new requirements for quantified demand reductions have been added by the Water Conservation Act of 2009 (Senate Bill 7 of Special Extended Session 7 or SBX7-7), which amends the Urban Water Management Planning Act and adds new water conservation provisions to the Water Code.

###### *Senate Bills 610 and 221, Water Supply Planning*

Senate Bill 610 (SB 610) (2001) amended the Urban Water Management Planning Act to mandate that a city or county approving certain projects subject to CEQA: 1) identify any public water system that may supply water for the project and 2) request those public water systems to prepare a specified water supply assessment.<sup>4</sup> The assessment must include:

- A discussion of whether the public water system's total projected water supplies available during normal, single dry, and multiple dry water years during a 20-year projection would meet the projected water demand associated with the proposed project in addition to the public water system's existing and planned future uses, including agricultural and manufacturing uses.

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<sup>4</sup> Under Water Code Section 10912(a)(7), SB 610 applies to a CEQA project that "would demand an amount of water equivalent to, or greater than, the amount of water required by a 500 dwelling unit project." Additional criteria are listed in Section 5.14.2.4, *Cumulative Impacts*. A water supply assessment was prepared for the proposed project.

## 5. Environmental Analysis

### UTILITIES AND SERVICE SYSTEMS

- The identification of existing water supply entitlements, water rights, or water service contracts relevant to the identified water supply for the proposed project, and water received in prior years pursuant to those entitlements, rights, and contracts.
- A description of the quantities of water received in prior years by the public water system under the existing water supply entitlements, water rights, or water service contracts.
- A demonstration of water supply entitlements, water rights, or water service contracts.
- The identification of other public water systems or water service contract holders that receive a water supply or have existing water supply entitlements, water rights, or water service contracts with the same source of water as the public water system.
- Additional information is required if groundwater is included in the supply for the proposed project.

The WSA must include an assessment that determines if the projected water supplies will be sufficient to satisfy the demands of the project as well as existing and planned future uses. A WSA was prepared for the proposed project and is included as Appendix N1 to this DEIR.

SB 610 also requires that new information be included as part of an urban water management plan (UWMP) if groundwater is identified as a source of water available to the supplier. Information must include a description of all water supply projects and programs that may be undertaken to meet total projected water use. SB 610 prohibits eligibility for funds from specified bond acts until the UWMP is submitted to the state.

#### ***20x2020 Water Conservation Plan***

The 20x2020 Water Conservation Plan, issued by the Department of Water Resources in 2010 pursuant to the Water Conservation Act of 2009 (SBX7-7), established a water conservation target of 20 percent reduction in water use by 2020 compared to the 2005 baseline use.

#### ***2018 Water Conservation Legislation***

In 2018, the California Legislature enacted two policy bills (SB 606 and Assembly Bill [AB] 1668) to establish long-term improvements in water conservation and drought planning to adapt to climate change and longer and more intense droughts in California. The Department of Water Resources and the State Water Resources Control Board (SWRCB) will develop new standards for:

- Indoor residential water use
- Outdoor residential water use
- Commercial, industrial, and institutional water use for landscape irrigation with dedicated meters
- Water loss

Urban water suppliers are required to stay within annual water budgets based on their standards for their service areas and to calculate and report their urban water use objectives in an annual water use report. For example, SB 606 and AB 1668 define a 55-gallon-per-person daily standard for indoor residential use until 2025, when it

## 5. Environmental Analysis UTILITIES AND SERVICE SYSTEM

decreases to 52.5 gallons, and further decreases to 50 gallons by 2030. The legislation also includes changes to UWMP preparation requirements (DWR 2021).

### ***Mandatory Water Conservation***

Following the declaration of a state of emergency on July 15, 2014, due to drought conditions, the SWRCB adopted Resolution No. 2014-0038 for emergency regulation of statewide water conservation efforts. These regulations, which went into effect on August 1, 2014, were intended to reduce outdoor urban water use and persuade all California households to voluntarily reduce their water consumption by 20 percent. Water companies with 3,000 or more service connections are required to report monthly water consumption to the SWRCB. The SWRCB readopted the regulations several times, until Governor Brown issued Executive Order B-40-17 in April 2017, ending the drought emergency and directing the SWRCB to rescind portions of its existing drought emergency water conservation regulations but maintain the portions that prohibit wasteful water use practices until permanent requirements are in place. The prohibitions that are still in effect address: 1) the application of potable water to outdoor landscapes in a manner that causes excess runoff; 2) the use of a hose to wash a motor vehicle except where the hose is equipped with a shut-off nozzle; 3) the application of potable water to driveways and sidewalks; 4) the use of potable water in nonrecirculating ornamental fountains; and 5) the application of potable water to outdoor landscapes during and within 48 hours after measurable rainfall. Also, urban water suppliers are still required to submit monthly water monitoring reports to the SWRCB (SWRCB 2014).

### ***Governor's Drought Declaration***

Governor Gavin Newsom declared a drought state of emergency on April 21, 2021, and asked state agencies to partner with local water districts and utilities to make Californians aware of drought and encourage actions to reduce water usage by promoting the DWR's Save Our Water Campaign and other water conservation programs. The proclamation also included measures to be implemented by the DWR, SWRCB, the Department of Fish and Wildlife, and the Department of Food and Agriculture that include coordinated state and local actions to address issues stemming from continued dry conditions. The governor issued subsequent drought emergency proclamations on May 10 and July 8, 2021. The May 10 proclamation included further measures to be implemented by DWR, SWRCB, the Department of Fish and Wildlife, and the Department of Food and Agriculture. The July 8 proclamation called on Californians to voluntarily reduce water use by 15 percent from their 2020 levels. Suggested water conservation measures included:

- Irrigating landscapes more efficiently.
- Running dishwashers and washing machines only when full.
- Finding and fixing leaks.
- Installing water-efficient showerheads and taking shorter showers.
- Using a shut-off nozzle on hoses and taking cars to commercial car washes that use recycled water.

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### UTILITIES AND SERVICE SYSTEMS

The SWRCB was instructed to track and report monthly on the state's progress toward achieving a 15 percent reduction in statewide urban water use compared to 2020 use.

#### *Regional*

##### ***Moulton Niguel Water District Urban Water Management Plan 2020***

The MNWD UWMP is required under Water Code Sections 10610 through 10656, the Urban Water Management Planning Act, effective January 1, 1984. The act requires all urban water suppliers to prepare, adopt, and file a UWMP with DWR every five years. The MNWD UWMP outlines current water demands, sources, and supply reliability for the City by forecasting water use based on climate, demographics, and land use changes in the City. The plan also provides demand management measures to increase water use efficiency for various land use types and details a water supplies contingency plan in case of shortage emergencies.

#### *Local*

##### ***Laguna Niguel Municipal Code***

- **Division 5, Article 3 (Water Efficient Landscaping Regulations).** This article establishes water-efficient landscaping regulations that apply to new construction and landscape rehabilitation projects by public agencies or private residential and non-residential projects with landscaped areas. The estimated water use allowed for landscaped areas must not exceed the calculated maximum applied water allowance or must be equivalently water efficient in a manner acceptable to the City. Irrigation of all landscaped areas is subject to penalties and incentives for water conservation and water waste prevention as determined and implemented by the local water purveyor.

### **Existing Conditions**

MNWD provides water to the project site; it provides water to about 170,000 people in a 37-square-mile service area, including nearly all of the cities of Laguna Niguel and Aliso Viejo and parts of the cities of Laguna Hills, Mission Viejo, San Juan Capistrano, and Dana Point.

#### ***Water Supply Sources***

MNWD relies on water imported by the Metropolitan Water District of Southern California (Metropolitan) through the Municipal Water District of Orange County (MWDOC) and local recycled water.

##### ***Imported Water***

Historically, most of the imported supply has come from the Colorado River Aqueduct. Improvements made to Metropolitan's system now allow greater flexibility in conveying northern California supplies from the SWP to Lake Mathews and in incorporating transfers, exchanges, and storage programs into Metropolitan's supply portfolio.

Imported water is treated at Metropolitan's Robert Diemer Filtration Plant near Yorba Linda, which has capacity for 520 mgd. In 2020, MNWD imported potable water supplies amounted to 23,083 acre-feet (af).

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### UTILITIES AND SERVICE SYSTEM

MNWD owns capacity rights to regional pipelines that convey imported water from Metropolitan's facilities to MNWD. However, capacity rights in pipelines do not guarantee supply, which is subject to availability from Metropolitan and MWDOC. Additionally, as a matter of practice, Metropolitan does not provide annual contractual entitlements or specific allotments of imported water to its member agencies, such as MWDOC, or to local agencies that are supplied by Metropolitan member agencies. Instead, Metropolitan uses a regional framework, and its member agencies annually advise Metropolitan how much water they anticipate needing for the next five years. Metropolitan and its member agencies use an ongoing process to develop a forecast of future water demands. Through a comprehensive planning process, Metropolitan calculates regional demand projections and, together with information about existing and proposed local projects and effects of conservation, determines the amount of imported and other supplies to secure to meet the demands of its member agencies. Based on this approach, Metropolitan is able to fulfill delivery requests from its member agencies such as MWDOC, and MWDOC is able to fulfill the delivery requests from its water agency members such as MNWD (MNWD 2021).

MWDOC delivers water from Metropolitan to MNWD through two Metropolitan-operated transmission mains, the East Orange County Feeder No. 2 and the Allen-McColloch Pipeline.

#### *Imported Water Reliability*

Metropolitan's SWP supplies have been impacted by the ongoing restrictions on SWP operations in accordance with the biological opinions of the US Fish and Wildlife Service and National Marine Fisheries Service issued in 2008 and 2009, respectively. Also, the drought operations plan prepared on April 8, 2014, lays out the proposed operations and conditions of the SWP during multiple dry years to maximize regulatory flexibility while remaining within the boundaries of existing law and regulations. In dry, below-normal conditions, Metropolitan has increased the supplies received from the California Aqueduct by developing flexible Central Valley/SWP water storage and transfer programs. The goal of the storage/transfer programs is to develop additional dry-year supplies that can be conveyed with available storage and pumping capacity to maintain deliveries through the California Aqueduct during dry hydrologic conditions and regulatory restrictions.

State and federal resource agencies and various environmental and water user entities are currently engaged in developing the Bay Delta Conservation Plan/California WaterFix, aimed at addressing Delta ecosystem restoration, water supply conveyance, and flood control protection and storage development.

Storage is a major component of Metropolitan's dry year resource management strategy. Metropolitan's likelihood of having adequate supply capability to meet projected demands, without implementing its water supply allocation plan, is dependent on its storage resources.

Metropolitan evaluated supply reliability by projecting supply and demand conditions for the single- and multiyear drought cases based on conditions affecting the SWP (Metropolitan's largest and most variable supply). For this supply source, the single driest year was 1977, and the driest three-year period was 1990 to 1992. The evaluation determined that the region can provide reliable water supplies not only under normal conditions but also under both the single-driest-year and the multiple-dry-year hydrologies for the 20-year horizon and beyond.

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### UTILITIES AND SERVICE SYSTEMS

#### *Water Surplus and Drought Management Plan and Water Supply Allocation Plan*

Metropolitan's ability to ensure water supply availability and reliability to its member agencies is based in part on its water surplus and drought management plan (WSDM). Metropolitan developed and adopted the WSDM Plan to provide policy guidance and manage regional water supply actions under both surplus and drought conditions to achieve the overall goal of ensuring water supply reliability to its member agencies. The WSDM Plan distinguishes between shortages, severe shortages, and extreme shortages. These terms have specific meanings in the WSDM Plan relating to Metropolitan's ability to deliver water to its member agency customers:

- **Shortage.** Metropolitan can meet full-service demands and partially meet or fully meet interruptible demands, using stored water or water transfers as necessary.
- **Severe Shortage.** Metropolitan can meet full-service demands only by using stored water, transfers, and possibly calling for extraordinary conservation.
- **Extreme Shortage.** Metropolitan allocates available supply to full-service customers.

Each year, Metropolitan evaluates the level of supplies available and existing levels of water in storage to determine the appropriate management stage. Each stage is associated with specific resource management actions designed to: (1) avoid an extreme shortage to the maximum extent possible; and (2) minimize adverse impacts to retail customers if an extreme shortage occurs. When Metropolitan must make net withdrawals from storage to meet demands, it is in a shortage condition. Under most shortage conditions, Metropolitan is still able to meet all end-use demands for water. Additionally, Metropolitan's Water Supply Allocation Plan (WSAP) provides a formula for allocating available water supplies to member agencies in case of extreme water shortages within Metropolitan's service area (Metropolitan 2016).

MWDOC has also developed a WSAP to allocate imported supplies at the retail level in Orange County. Under these WSAPs, the availability of imported water supplies is based primarily on the need for imported supplies relative to the total need for those supplies within the Metropolitan and MWDOC service areas (MNW 2021).

#### ***Baker Water Treatment Plant***

MNWD and four other south Orange County water districts built the Baker Water Treatment Plant (WTP), a 28.1-mgd facility in Lake Forest. The Baker WTP treats raw imported water from Metropolitan and local surface water supplies potentially available from Irvine Lake. The project is intended primarily to increase the capacity to treat imported raw water from Metropolitan; it does not create a day-to-day new supply but provides increased water supply reliability to customers of MNWD and the Irvine Ranch, El Toro, Santa Margarita, and Trabuco Canyon water districts. The Baker WTP also minimizes water supply impacts in the event of emergency conditions or scheduled maintenance on the Metropolitan delivery system, such as on the Diemer Filtration Plant, Lower Feeder Pipeline, or Allen-McColloch Pipeline.

Additionally, project participants could treat and receive local surface water from Irvine Lake, which is supplied by untreated water from Metropolitan and local surface runoff. MNWD has a capacity right of approximately 8.4 mgd (9,400 acre-feet per year [afy]) from the Baker WTP.



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### UTILITIES AND SERVICE SYSTEM

#### *Recycled Water*

MNWD currently has 11.4 mgd of capacity for tertiary treatment that meets the recycled water requirements of the California Code of Regulations (CCR) Title 22—9 mgd (12,780 afy) capacity in the SOCWA Joint Regional WTP in Laguna Niguel and 2.4 mgd (2,690 afy) in Plant 3A in Mission Viejo. MNWD also has 1,000 af of seasonal storage for its recycled water distribution system. In 2020, MNWD's tertiary-treated recycled water supplies totaled 5,013 afy (MNWD 2021).

#### *Water Supply Summary*

MNWD water supplies are forecast to be sufficient to meet water demands in its service area over the 2025 to 2045 period in normal, single-dry, and multiple-dry year conditions. Forecast MNWD water supplies and demands in normal water conditions over this period are shown in Table 5.17-4.

**Table 5.17-4 Normal Year Supply and Demand Comparison**

	2025	2030	2035	2040	2045
Supply Totals	32,093	31,782	31,612	31,473	31,280
Demand Totals	32,093	31,782	31,612	31,473	31,280
<b>Difference</b>	<b>0</b>	<b>0</b>	<b>0</b>	<b>0</b>	<b>0</b>

Source: MNWD 2021.

#### *Water Demands*

MNWD's water use target for 2020 under the 20x2020 Water Conservation Plan was 173 gallons per capita per day—that is, a 20 percent reduction from baseline, which is average use between 1990 and 2005. The District met its 2020 target in 2010. MNWD projects that water demands in its service area will increase slightly from 28,096 afy in 2020 to 31,280 afy in 2045 (MNWD 2021).

#### *Existing Water Demands On-Site*

Based on water demand factors in the WSA, water use on-site is estimated to be approximately 1,726 gpd (see Table 5.17-5).

**Table 5.17-5 Estimated Existing Water Demand On-Site**

Land Use	Square Feet	Water Demand (gallons per day)	
		Per 1,000 SF	Total
Library	13,950	65	907
County Maintenance Yard	9,100	90 <sup>1</sup>	819
<b>Totals</b>	<b>23,050</b>	<b>NA</b>	<b>1,726</b>

Source: Dudek 2019.

<sup>1</sup> No generation factor for maintenance facilities is available; therefore, the WSA conservatively used the water demand factor for retail use.

## 5. Environmental Analysis

### UTILITIES AND SERVICE SYSTEMS

#### 5.17.2.2 THRESHOLDS OF SIGNIFICANCE

According to Appendix G of the CEQA Guidelines and the City's CEQA Manual, a project would normally have a significant effect on the environment if the project:

- U-1            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.
- U-2            Have sufficient water supplies available to serve the project and reasonably foreseeable future development during normal, dry, and multiple dry years.

#### 5.17.2.3 PLANS, PROGRAMS, AND POLICIES

- PPP USS-3     The proposed project shall implement water-efficient landscaping features in accordance with Division 5, Article 3 of the Laguna Niguel Municipal Code.
- PPP USS-4     The proposed project's water infrastructure improvements will be designed, constructed, and operated in accordance with the applicable regulations in the Moulton Niguel Water District Standard Specifications.

#### 5.17.2.4 ENVIRONMENTAL IMPACTS

##### Impact Analysis

The following impact analysis addresses the thresholds of significance. The applicable thresholds are identified in brackets after the impact statement.

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**Impact 5.17-3: Existing facilities would be able to accommodate project-generated water demands. [Threshold U-1]**

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The WSA estimated that buildout of the proposed project would generate a water demand of approximately 142,015 gpd, or 158.3 afy. The proposed project's potable water demand is estimated at 146.3 afy, and the recycled water demand is 12 afy. The WSA was based on land use square footages that have since been modified. The WSA overestimates indoor and outdoor water demand, but its conservative outdoor water demands are maintained here. Table 5.17-6 estimates indoor water demand based on the water demand factors in the WSA and the updated square footages for the proposed project, as shown in Chapter 3 of this DEIR. As shown in the table, the proposed project's potable water demand is 116.6 afy, and the recycled water demand remains at 12 afy.

5. Environmental Analysis  
UTILITIES AND SERVICE SYSTEM**Table 5.17-6 Estimated Water Demand at Project Buildout**

Land Use <sup>1</sup>	Quantity	Water Demand (gpd)		Water Demand (afy)
		Per Unit for Residential Per 1,000 SF for All Other Land Uses	Total	
Multifamily Residential	275 units	180	49,500	55.4
Commercial/Retail	34,340 SF	90	3,091	3.5
Library	16,290 SF	65	1,059	1.2
Office	81,451 SF	65	5,294	5.9
Restaurant	42,770 SF	1,050	44,909	50.3
Landscape (potable water demand) <sup>1</sup>	4,469	55	246	0.3
<b>Projected Potable Demand</b>	-	-	<b>104,099</b>	<b>116.6</b>
Landscape (recycled water demand) <sup>1</sup>	194,644	55	10,705	12.0
<b>Total Projected Demand</b>			<b>114,804</b>	<b>128.6</b>
<b>Existing Water Demand</b>			<b>(1,726)<sup>2</sup></b>	<b>(1.9)<sup>2</sup></b>
<b>Net Increase</b>			<b>113,078</b>	<b>126.7</b>

Source: Dudek 2019.

<sup>1</sup> Conservative square footage amounts from the WSA were used here. Potable water demand for landscaping is for fountains and pools. Recycled water is used for irrigation of landscaped areas.<sup>2</sup> Existing water demands relate only to indoor water demands.

The MNWD issued a letter (see Appendix N2) indicating that the proposed project's water demand, as detailed in the WSA, was incorporated in the district's 2020 UWMP. The updated land use square footages, as shown in Table 5.17-6, result in a water demand that is less than the water demand allocated for the proposed project in the WSA; therefore, MNWD noted that it does not require an updated WSA.<sup>5</sup>

As detailed in the 2020 UWMP, MNWD has adequate water supplies to meet the demand within its service area, including the proposed project, during normal, single-dry, and multiple-dry water years over the next 20-year period.

Furthermore, the proposed project would implement the water-efficient requirements as detailed in the City's Municipal Code, and water infrastructure improvements will be designed, constructed, and operated in accordance with the applicable regulations in the MNWD Standard Specifications.

Additionally, MNWD has existing recycled water lines in the project area with enough capacity to serve the proposed project's recycled water needs (Emami 2020).

**Level of Significance Before Mitigation:** With implementation of PPP US-3 and PPP US-4, Impact 5.17-3 would be less than significant.

<sup>5</sup> It should be noted that the MNWD letter included in Appendix N2 underestimates the water demand numbers for the proposed project. The letter indicates that the water demand for the proposed project would be 77 afy, whereas this EIR anticipates a net increase of approximately 127 afy. Since the higher water demand of approximately 158 afy from the WSA was incorporated in the 2020 UWMP, MNWD's conclusion that an updated WSA is not required is still valid.

## 5. Environmental Analysis

### UTILITIES AND SERVICE SYSTEMS

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#### **Impact 5.17-4: Available water supplies are sufficient to serve the project and reasonably foreseeable future development during normal, dry, and multiple dry years. [Threshold U-2]**

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As detailed in Table 5.17-6, the proposed project would generate a water demand of approximately 114,804 gpd. The library and the county maintenance yard currently have a total water demand of 1,726 gpd. Since the maintenance yard will be demolished and the library will slightly expand, the proposed project would have a net water demand of 113,078 gpd. The WSA concluded that MNWD would have adequate water supply to serve the proposed project. Thus, MNWD would not require the construction or expansion of existing facilities.

*Level of Significance Before Mitigation:* Less than significant.

#### **5.17.2.5 CUMULATIVE IMPACTS**

Other projects would increase population and employment in MNWD's service area, thus increasing water demands. The population in the MNWD is estimated to increase from 170,326 in 2020 to 172,802 in 2045, an increase of 2,566 or 1.5 percent (MNWD 2021). Forecast districtwide MNWD water supplies and demands are discussed above in Section 5.17.2.1, *Environmental Setting*. MNWD forecasts that it will have sufficient water supplies to meet demands in its service area over the 2025 to 2045 period, in normal, single-dry, and multiple-dry year conditions. No significant cumulative impact would occur, and project impacts would not be cumulatively considerable.

#### **5.17.2.6 LEVEL OF SIGNIFICANCE BEFORE MITIGATION**

Upon implementation of regulatory requirements and standard conditions of approval, the following impacts would be less than significant: 5.17-3 and 5.17-4.

#### **5.17.2.7 MITIGATION MEASURES**

No mitigation measures are required.

#### **5.17.2.8 LEVEL OF SIGNIFICANCE AFTER MITIGATION**

Impacts would be less than significant and no mitigation measures are required.

### **5.17.3 Storm Drainage Systems**

#### **5.17.3.1 ENVIRONMENTAL SETTING**

##### **Regulatory Background**

###### *Federal*

###### *Clean Water Act*

The CWA is the principal statute governing water quality. It establishes the basic structure for regulating discharges of pollutants into the waters of the United States and gives the US Environmental Protection

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Agency authority to implement pollution control programs, such as setting wastewater standards for industry. The statute's goal is to completely end all discharges and to restore, maintain, and preserve the integrity of the nation's waters. The CWA regulates direct and indirect discharge of pollutants; sets water quality standards for all contaminants in surface waters; and makes it unlawful for any person to discharge any pollutant from a point source into navigable waters unless a permit is obtained under its provisions. The CWA mandates permits for wastewater and stormwater discharges; requires states to establish site-specific water quality standards for navigable bodies of water; and regulates other activities that affect water quality, such as dredging and the filling of wetlands. The CWA funds the construction of sewage treatment plants and recognizes the need for planning to address nonpoint sources of pollution. Section 402 of the CWA requires a permit for all point source discharges of any pollutant (except dredge or fill material) into waters of the United States.<sup>6</sup>

#### *National Pollutant Discharge Elimination System*

Under the NPDES program (under Section 402 of the CWA), all facilities that discharge pollutants from any point source into Waters of the United States must have a NPDES permit. The term "pollutant" broadly applies to any type of industrial, municipal, and agricultural waste discharged into water. Point sources can be publicly owned treatment works (POTW), industrial facilities, and urban runoff. (The NPDES program addresses certain agricultural activities, but the majority are considered nonpoint sources and are exempt from NPDES regulation.) Direct sources discharge directly to receiving waters, and indirect sources discharge to POTWs, which in turn discharge to receiving waters. Under the national program, NPDES permits are issued only for direct, point-source discharges. The National Pretreatment Program addresses industrial and commercial indirect dischargers. Municipal sources are POTWs that receive primarily domestic sewage from residential and commercial customers. Specific NPDES program areas applicable to municipal sources are the National Pretreatment Program, the Municipal Sewage Sludge Program, Combined Sewer Overflows, and the Municipal Storm Water Program. Nonmunicipal sources include industrial and commercial facilities. Specific NPDES program areas applicable to industrial/commercial sources are: Process Wastewater Discharges, Non-process Wastewater Discharges, and the Industrial Storm Water Program. NPDES issues two basic permit types: individual and general. Also, the Environmental Protection Agency has recently focused on integrating the NPDES program further into watershed planning and permitting (USEPA 2012).

The NPDES has a variety of measures designed to minimize and reduce pollutant discharges. All counties with storm drain systems that serve a population of 100,000 or more, as well as construction sites one acre or more in size, must file for and obtain an NPDES permit. Another measure for minimizing and reducing pollutant discharges to a publicly owned conveyance or system of conveyances (including roadways, catch basins, curbs, gutters, ditches, man-made channels, and storm drains designed or used for collecting and conveying stormwater) is the Environmental Protection Agency's Storm Water Phase I Final Rule. The Phase I Final Rule requires an operator (such as a city) of a regulated municipal separate storm sewer system (MS4) to develop, implement, and enforce a program (e.g., best management practices [BMP], ordinances, or other regulatory mechanisms) to reduce pollutants in postconstruction runoff to the City's storm drain system from new development and redevelopment projects that result in the land disturbance of greater than or equal to one acre. In California, the Environmental Protection Agency has delegated implementation of NPDES regulations

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<sup>6</sup> A "point source" is a discernible, confined, and discrete conveyance, such as a pipe, ditch, or channel.

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to the State Water Resources Control Board. Nine Regional Water Quality Control Boards (RWQCB) exercise rulemaking and regulatory activities in nine regions or “basins.” The City is in the jurisdiction of the San Diego RWQCB. The MS4 permit for the part of Orange County in the San Diego RWQCB region is Order No. R9-2015-0001, issued by the San Diego RWQCB in 2015. The San Diego RWQCB enforces the MS4 permit respecting co-permittees on the specified permit, including the City. The City’s public works department enforces conditions of the MS4 permit on development and redevelopment projects in the City.

#### *Regional and Local*

The San Diego RWQCB MS4 Stormwater Permit and Laguna Niguel Local Implementation Plan are described in Section 5.6, *Hydrology and Water Quality*, of this DEIR.

#### **Existing Conditions**

The majority of existing runoff by sheet flow is caught in above-grade drainage inlets throughout the project site and diverted into the City’s storm drain system southeast from the site in Crown Valley Road. Under existing conditions, runoff is discharged from the site at three places:

- Runoff from the bulk of the project site drains to the south. There are several drainage devices and catch basins on the southern portion of the project site that convey collected runoff to an existing 60-inch storm drain running through the property from Pacific Island Drive in the north to Crown Valley Parkway to the southwest. This storm drain is Orange County Flood Control District Facility No. J03P07 and connects off-site to a 96-inch storm drain pipe, which conveys runoff to Sulphur Creek Channel and Sulphur Creek Reservoir.
- Surface runoff from the north end of the site flows north to Pacific Island Drive. Runoff on Pacific Island Drive flows east to the intersection with Alicia Parkway, then south along Alicia Parkway toward Crown Valley Parkway.
- Runoff drains via surface flow into Crown Valley Parkway at the drive entrance that serves both the Laguna Niguel Library and Laguna Niguel City Hall. Collected runoff then flows east along Crown Valley Parkway before entering the storm drain system discharging to Sulphur Creek Channel.

#### **5.17.3.2 THRESHOLDS OF SIGNIFICANCE**

According to Appendix G of the CEQA Guidelines and the City’s CEQA Manual, a project would normally have a significant effect on the environment if the project:

- U-1 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.

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### 5.17.3.3 PLANS, PROGRAMS, AND POLICIES

PPP HYD-1 The General Permit for Storm Water Discharges Associated with the Construction and Land Disturbance Activities, NPDES No. CAS000002. Compliance requires filing a Notice of Intent (NOI), a Risk Assessment, a Site Map, a Storm Water Pollution Prevention Plan (SWPPP) and associated best management practices (BMP), an annual fee, and a signed certification statement. Also, the County requires preparation of an erosion and sediment control plan for projects that disturb more than one acre of land and implementation of BMPs to control erosion, debris, and construction-related pollutants.

PPP HYD-2 The MS4 Permit requires new development and redevelopment projects to:

- Control contaminants into storm drain systems
- Educate the public about stormwater impacts
- Detect and eliminate illicit discharges
- Control runoff from construction sites
- Implement BMPs and site-specific runoff controls and treatments for new development and redevelopment

PPP HYD-3 As required by the Laguna Niguel Local Implementation Plan and municipal ordinances on stormwater quality management, the proposed project must submit a priority-project-specific final Water Quality Management Plan to the City for approval prior to the City issuing any building or grading permits.

### 5.17.3.4 ENVIRONMENTAL IMPACTS

#### Impact Analysis

The following impact analysis addresses the threshold of significance, which is identified in brackets after the impact statement.

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#### **Impact 5.17-5: Existing facilities would be able to accommodate project-generated stormwater flows. [Threshold U-1]**

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As detailed under Impact 5.9-4 of Section 5.9, *Hydrology and Water Quality*, the proposed project would not adversely impact existing and planned stormwater drainage facilities. The following summarizes the analysis under Impact 5.9-4.

The proposed project would remove the existing 60-inch-diameter storm drain running through the property from Pacific Island Drive in the north to Crown Valley Parkway in the southwest. The storm drain would be realigned as shown in Figure 5.9-1, *Water Quality Management Plan*. It would convey flows originating from development north of the site (draining down Highlands Avenue) to the connection point at Crown Valley Parkway, bypassing the proposed project and not contributing any tributary flow. A secondary private storm

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drain system would be constructed on the project site to convey the flows from the proposed project through a detention system designed for hydromodification and flood control. This detention system is proposed to be installed under the parking lot of the retail/market area on the south side of the project.

Peak runoff values for the 25-, 50-, and 100-year events are shown in the hydrology maps for the existing and proposed conditions (see Figure 5.9-2, *Existing Conditions Hydrology Map*, and Figure 5.9-3, *Proposed Conditions Hydrology Map*). The preliminary hydrology study indicates that downstream impacts would be mitigated by the proposed detention system, and the adjacent public storm drain facilities would not be adversely affected by the proposed project. Consistent with the Orange County Hydrology Manual and the Orange County Local Drainage Manual, on-site storm drains would be sized based on a 25-year frequency for overflow conditions outside the overall building envelope and 100-year frequency for areas within the enclosed proposed apartment courtyards, which are in sump conditions. Local area drains and drainage pipes (landscape applications) will be designed for a 10-year event. Events exceeding the 10-year event will flow overland in landscape areas to larger catchment devices. Catch basin, drainage pipe sizing, and final sizing for the detention basin would be calculated in the final hydrology and hydraulics report to be submitted and approved by the City's public works department prior to issuance of the construction permit. Area drains and appurtenant piping would be designed in conformance with the Orange County Hydraulics manual. All peak storm flows for the 25-, 50-, and 100-year events would be diverted into the on-site detention system before flowing into the public drain system, which would reduce peak post-development flow rates below existing conditions.

**Level of Significance before Mitigation:** With implementation of PPP HYD-1 and PPP HYD-3, Impact 5.17-5 would be less than significant.

#### 5.17.3.5 CUMULATIVE IMPACTS

The area considered for hydrology and drainage impacts is the Aliso Creek Watershed. Other projects in the Aliso Creek Watershed would increase amounts of impervious surfaces and thus could generate increased runoff. However, these cumulative projects would also be required to prepare and implement water quality management plans specifying BMPs—including low-impact-development BMPs—that would minimize runoff from those sites. Therefore, related projects are not expected to cause substantial increases in runoff or require construction of substantial new or expanded municipal storm drainage systems. Cumulative impacts would be less than significant, and project impacts would not be cumulatively considerable.

#### 5.17.3.6 LEVEL OF SIGNIFICANCE BEFORE MITIGATION

Upon implementation of regulatory requirements and standard conditions of approval, Impact 5.17-5 would be less than significant.

#### 5.17.3.7 MITIGATION MEASURES

No mitigation measures are required.

#### 5.17.3.8 LEVEL OF SIGNIFICANCE AFTER MITIGATION

Impacts would be less than significant and no mitigation measures are required.



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### 5.17.4 Solid Waste

#### 5.17.4.1 ENVIRONMENTAL SETTING

##### Regulatory Background

###### *Federal*

###### *Resource Conservation and Recovery Act*

The Resource Conservation and Recovery Act of 1976, Part 258, contains regulations for municipal solid waste landfills and requires states to implement their own permitting programs incorporating the federal landfill criteria (Code of Federal Regulations Title 40). The federal regulations address the location, operation, design (liners, leachate collection, run-off control, etc.), groundwater monitoring, and closure of landfills.

###### *State*

###### *Assembly Bills 939 and 341*

Assembly Bill 939 (Integrated Solid Waste Management Act of 1989; Public Resources Code 40050 et seq.) established an integrated waste-management system that focused on source reduction, recycling, composting, and land disposal of waste. AB 939 required every California city and county to divert 50 percent of its waste from landfills by the year 2000. Compliance with AB 939 is measured in part by comparing solid waste disposal rates for a jurisdiction with target disposal rates. Actual rates at or below target rates are consistent with AB 939. AB 939 also requires California counties to show 15 years of disposal capacity for all jurisdictions in the county or show a plan to transform or divert its waste.

Assembly Bill 341 (Chapter 476, Statutes of 2011) increased the statewide solid waste diversion goal to 75 percent by 2020. The law also mandated recycling for commercial and multifamily residential land uses, schools, and school districts.

###### *Assembly Bill 1826*

Assembly Bill 1826 required businesses to recycle their organic waste on and after April 1, 2016, depending on the amount of waste they generate per week (California Public Resources Code Sections 42649.8 et seq.). This law also requires that on and after January 1, 2016, local jurisdictions across the state implement an organic waste recycling program to divert organic waste generated by businesses, including multifamily residential dwellings that consist of five or more units. Single-family dwellings are not required to have a food waste diversion program.

###### *California Green Building Standards Code*

The 2019 California Green Building Standards Code (CALGreen) requires that at least 65 percent of the nonhazardous construction and demolition waste from nonresidential construction operations be recycled and/or salvaged for reuse (24 CCR Part 11).

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### Local

#### *Laguna Niguel Municipal Code*

Section 9-1-45.17, Trash and Recyclable Materials Storage, is intended to implement the provisions of the California Public Resources Code Section 42900 et seq., which requires local jurisdictions to provide regulations governing adequate areas for collection and loading of recyclable materials in multiple-family residential and nonresidential development projects. This section also addresses the related subject of common trash areas in such projects.

### Existing Conditions

#### *Solid Waste Collection*

CR&R Environmental Services, Inc., collects solid waste in Laguna Niguel under contract with the City.

#### *Solid Waste Recycling and Disposal*

In 2017, about 97 percent of the solid waste landfilled from Laguna Niguel was disposed of at two facilities—the Prima Deshecha Sanitary Landfill in San Juan Capistrano and the Frank Bowerman Sanitary Landfill in Irvine. Both facilities are operated by OC Waste and Recycling (CalRecycle 2019a). The two facilities are described in Table 5.17-7, *Landfills Serving Laguna Niguel*.

**Table 5.17-7 Landfills Serving Laguna Niguel**

Landfill	Remaining Capacity (in cubic yards)	Maximum Permitted Daily Disposal (in tons)	Average Daily Disposal (in tons) <sup>1</sup>	Residual Daily Disposal Capacity (in tons)	Estimated Closing Date
Prima Deshecha Sanitary Landfill 32250 Avenida La Pata San Juan Capistrano, CA 92675	134,400,000	4,000	1,763	2,237	2102
Frank Bowerman Sanitary Landfill 11002 Bee Canyon Road Irvine, CA 92602	170,400,000	11,500	7,631	3,869	2075
<b>Total</b>	<b>304,800,000</b>	<b>15,500</b>	<b>9,394</b>	<b>6,106</b>	—

Sources: CalRecycle 2019b, 2019c, 2019d; Arma 2019.

<sup>1</sup> Average daily disposal is calculated from 2017 annual disposal and based on 300 operating days per year. Each landfill is open six days per week, Monday through Saturday, except certain holidays.

Compliance with AB 939 is measured in part by actual disposal rates compared to target rates for residents and employees; actual disposal rates at or below target rates are consistent with AB 939. Target disposal rates for Laguna Niguel are 6.6 pounds per day (ppd) per resident and 29.8 ppd per employee. Actual disposal rates in 2017 were 3.5 ppd per resident and 13.6 ppd per employee (CalRecycle 2019e). Thus, solid waste diversion in Laguna Niguel is consistent with AB 939.

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#### *Solid Waste Generation*

Existing solid waste generation onsite is estimated at 165 pounds per day, as shown in Table 5.17-8.

**Table 5.17-8 Existing Solid Waste Generation On-Site**

Land Use	Quantity	Solid Waste Generation, pounds per day	
		Per Square Foot <sup>1</sup>	Total
Library	14,400 square feet	0.007 pound per day	101
County Maintenance Yard	9,100 square feet	0.007 pound per day	64
<b>Total</b>			<b>165</b>

Source: Arnuu 2019.  
<sup>1</sup> There is no solid waste generation factor for library or maintenance facilities use; therefore, the generation factor for institutional (schools) was used to calculate solid waste generation.

#### 5.17.4.2 THRESHOLDS OF SIGNIFICANCE

According to Appendix G of the CEQA Guidelines and the City's CEQA Manual, a project would normally have a significant effect on the environment if the project:

- U-4 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.
- U-5 Comply with federal, state, and local management and reduction statutes and regulations related to solid waste.

#### 5.17.4.3 PLANS, PROGRAMS, AND POLICIES

- PPP USS-5 The proposed project shall comply with Section 4.408 of the 2019 California Green Building Code Standards, which requires new development projects to submit and implement a construction waste management plan in order to reduce the amount of construction waste transported to landfills.
- PPP USS-6 The proposed project shall divert waste in compliance with AB 939.
- PPP USS-7 The proposed project will store and collect recyclable materials in compliance with AB 341. Green waste will be handled in accordance with AB 1826.
- PPP USS-8 Section 9-1-45.17, Trash and Recyclable Materials Storage, of the Laguna Niguel Municipal Code.

#### 5.17.4.4 ENVIRONMENTAL IMPACTS

##### Impact Analysis

The following impact analysis addresses the thresholds of significance. The applicable thresholds are identified in brackets after the impact statement.

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### Impact 5.17-6: Existing facilities would be able to accommodate project-generated solid waste. [Threshold U-4]

Buildout of the proposed project is estimated to generate approximately 11,604 pounds of solid waste per day, a net increase of approximately 11,439 pounds per day, as shown in Table 5.17-9. Sufficient landfill capacity is available in the region for estimated solid waste generation by the proposed project, and project development would not require an expansion of landfill capacity.

**Table 5.17-9 Estimated Solid Waste Generation**

Land Use	Quantity	Per Unit for Residential Per SF for All Other Land Uses	Solid Waste Generation (ppd)
Multifamily Residential	275 units	12.23	3,363
Commercial/ Retail	34,340	0.0312	1,071
Offices	81,451	0.084	6,842
Library	16,290	0.007	114
Restaurant	42,770	0.005	214
<b>Total</b>			<b>11,604</b>
<b>Existing Solid Waste Generation (County Maintenance Yard and Library)</b>			<b>(165)</b>
<b>Net Increase, solid waste generation</b>			<b>11,439</b>

Source: Ardua 2019.

Note: ppd = pounds per day

Furthermore, the proposed project would comply with the California Green Building Code Standards and divert waste in compliance with AB 939. Recyclable materials would be stored and collected in compliance with AB 341, and green waste would be handled in accordance with AB 1826. The project would also implement the requirements of Section 9-1-45.17 of the Laguna Niguel Municipal Code. Therefore, impacts would be less than significant.

**Level of Significance Before Mitigation:** With the implementation of PPP USS-6, USS-7, and USS-8, Impact 5.17-6 would be less than significant.

### Impact 5.17-7: Existing facilities would comply with related solid waste regulations. [Thresholds U-4 and U-5]

AB 939, the Integrated Waste Management Act of 1989 requires all local governments to develop source reduction, reuse, recycling, and composting programs to reduce tonnage of solid waste going to landfills (California Public Resources Code Sections 40000 et seq.). Cities must divert at least 50 percent of their solid waste generation into recycling. Compliance with AB 939 is measured for each jurisdiction, in part, as actual disposal amounts compared to target disposal amounts. As described in Section 5.17.4.1 under “Existing Conditions,” solid waste diversion in Laguna Niguel is consistent with AB 939.

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AB 1327, the California Solid Waste Reuse and Recycling Access Act of 1991 required the California Integrated Waste Management Board to develop a model ordinance requiring adequate areas for the collection and loading of recyclable materials in development projects (California Public Resources Code Sections 42900 et seq.). Local agencies were required to adopt and enforce either the model ordinance or an ordinance of their own by September 1, 1993. Space for recyclable material storage is required by Section 9-1-45.19 of the Laguna Niguel Municipal Code, in conformance with AB 1327.

Furthermore, the proposed project is required to store and collect recyclable materials in compliance with AB 341 and handle green waste in accordance with AB 1826.

The project would comply with laws and regulations governing solid waste disposal, and impacts would be less than significant.

***Level of Significance Before Mitigation:*** With the implementation of PPP USS-6, USS-7, and USS-8, Impact 5.17-7 would be less than significant.

### 5.17.4.5 CUMULATIVE IMPACTS

The area considered for cumulative impacts is Orange County, the service area of the three landfills owned and operated by OC Waste & Recycling. Other projects in Orange County would increase solid waste generation. The population of Orange County is forecast to increase by nearly 389,900, or 12.7 percent, between 2012 and 2040; employment in the county is forecast to increase by 372,400, or 24.4 percent, between 2012 and 2040 (see Section 5.12, *Population and Housing*, of this DEIR). The two landfills listed in Table 5.17-7 have combined residual daily disposal capacity of over 6,106 tons per day—that is, 39 percent of their combined maximum permitted daily disposal—and the earlier of the two facilities' estimated closing dates is 2075. There is sufficient landfill capacity in the county for solid waste generation by other projects in combination with the proposed project, and cumulative impacts would be less than significant. Project impacts would not be cumulatively considerable.

### 5.17.4.6 LEVEL OF SIGNIFICANCE BEFORE MITIGATION

Upon implementation of regulatory requirements and standard conditions of approval, Impacts 5.17-6 and 5.17-7 would be less than significant.

### 5.17.4.7 MITIGATION MEASURES

No mitigation measures are required.

### 5.17.4.8 LEVEL OF SIGNIFICANCE AFTER MITIGATION

Impacts would be less than significant and no mitigation measures are required.

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#### 5.17.5 Other Utilities

##### 5.17.5.1 ENVIRONMENTAL SETTING

###### Regulatory Background

###### *State*

###### *California Energy Commission*

The California Energy Commission (CEC) was created in 1974 as the state's principal energy planning organization in order to meet the energy challenges facing the state in response to the 1973 oil embargo. The CEC is charged with six basic responsibilities when designing state energy policy:

- Forecast statewide electricity needs.
- License power plants to meet those needs.
- Promote energy conservation and efficiency measures.
- Develop renewable energy resources and alternative energy technologies.
- Promote research, development, and demonstration.
- Plan for and direct the state's response to energy emergencies.

###### *California Building Code: Building Energy Efficiency Standards*

Energy conservation standards for new residential and nonresidential buildings were adopted by the California Energy Resources Conservation and Development Commission (now the CEC) in June 1977. Title 24 requires the design of building shells and building components to conserve energy. The standards are updated periodically to allow for consideration and possible incorporation of new energy efficiency technologies and methods. The 2019 Building Energy Efficiency Standards were adopted in May 2018 and went into effect January 1, 2020.

The 2019 standards move toward cutting energy use in new homes by more than 50 percent from 2016 standards and will require installation of solar photovoltaic systems for single-family homes and multifamily buildings of three stories and less. The 2019 standards focus on four key areas: 1) smart residential photovoltaic systems; 2) updated thermal envelope standards (preventing heat transfer from the interior to exterior and vice versa); 3) residential and nonresidential ventilation requirements; 4) and nonresidential lighting requirements. Under the 2019 standards, nonresidential buildings will be 30 percent more energy efficient compared to the 2016 standards, and single-family homes will be 7 percent more energy efficient. When accounting for the electricity generated by the solar photovoltaic system, single-family homes would use 53 percent less energy compared to homes built to the 2016 standards.

###### *California Building Code: CALGreen*

CALGreen was adopted as part of the California Building Standards Code and established planning and design standards for sustainable site development; energy efficiency (in excess of the California Energy Code requirements); and water conservation and material conservation, both of which contribute to energy conservation. The 2019 CALGreen standards became effective January 1, 2020.

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### *2012 Appliance Efficiency Regulations*

The 2012 Appliance Efficiency Regulations include standards for both federally regulated appliances and non-federally regulated appliances (20 CCR Sections 1601 through 1608). Though these regulations are now often viewed as “business as usual,” they exceed the standards imposed by all other states, and they reduce reducing energy demand as well as GHG emissions.

### *Electric Utility Industry Restructuring Act: Assembly Bill 1890 (1996)*

The California Public Utilities Commission regulates investor-owned electric power and natural gas utility companies in California. AB 1890, enacted in 1996, deregulated the power generation industry, allowing customers to purchase electricity on the open market. Under deregulation, the production and distribution of power were no longer under the sole control of investor-owned utilities (e.g., Southern California Edison).

## Existing Conditions

### *Electricity*

The project site is in the service area of Southern California Edison (SCE). Total electricity consumption in SCE’s service area was 103,597 gigawatt-hours in 2020 (CEC 2022).<sup>7</sup>

### *Natural Gas*

The Southern California Gas Company (SoCalGas) provides natural gas to the plan area. SoCalGas’s service area spans much of the southern half of California, from Imperial County in the southeast to San Luis Obispo County in the northwest, to part of Fresno County in the north, to Riverside County and most of San Bernardino County in the east. Total natural gas demand in the year 2019 was 2,409 million cubic feet per day (MMcf/day). Available supplies are forecast to increase from 3,175 MMcf/day in 2020 to 3,435 in 2035. Total estimated natural gas consumption in SoCalGas’s service area is forecast to decline from 2,462 MMcf/day in 2020 to 2,103 MMcf/day in 2035 (CGEU 2020).

### 5.17.5.2 THRESHOLDS OF SIGNIFICANCE

Although not specifically in Appendix G of the CEQA Guidelines, the following additional threshold is also addressed in the impact analysis: a project would normally have a significant effect on the environment if the project:

- U-1        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.

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<sup>7</sup> One gigawatt-hour is equivalent to one million kilowatt-hours.

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#### 5.17.5.3 PLANS, PROGRAMS, AND POLICIES

- PPP USS-5 New buildings are required to achieve the current California Building Energy and Efficiency Standards (California Code of Regulations Title 24, Part 6) and California Green Building Standards Code (CALGreen) (Title 24, Part 11).
- PPP USS-6 All new appliances would comply with the 2012 Appliance Efficiency Regulations (California Code of Regulations Title 20, Sections 1601 through 1608).

#### 5.17.5.4 ENVIRONMENTAL IMPACTS

##### Impact Analysis

The following impact analysis addresses the thresholds of significance. The applicable thresholds are identified in brackets after the impact statement.

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**Impact 5.17-8: Existing facilities would be able to accommodate project-generated electricity and gas demands. [Threshold U-1]**

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##### Electricity

Project operation is expected to use approximately 6.44 million kilowatt hours (kWh) annually (refer to Table 5.5-2). The electricity demand generated by the proposed project would be less than 0.03 percent of the SCE's yearly electricity consumption. Project development would not require SCE to obtain new or expanded electricity supplies, and impacts would be less than significant.

##### Natural Gas

Project operation is estimated to use about 11.34 million kilo British Thermal Units (kBtu) per year (refer to Table 5.5-3). Available supplies are forecast to increase from 3,175 MMcf/day in 2020 to 3,435 in 2035. Total estimated natural gas consumption in SoCalGas's service area is forecast to decline from 2,462 MMcf/day in 2020 to 2,103 MMcf/day in 2035 (CGEU 2020). SoCalGas forecasts that it will have sufficient natural gas supplies to meet project gas demands, and project development would not require SoCalGas to obtain new or expanded gas supplies. Impacts would be less than significant.

Furthermore, the proposed project would comply with the requirements of the current California Building Energy and Efficiency Standards (Title 24, Part 6) and the California Green Building Standards Code (CALGreen) (Title 24, Part 11). All new appliances would comply with the 2012 Appliance Efficiency Regulations (Title 20, CCR Sections 1601 through 1608).

**Level of Significance before Mitigation:** With implementation of PPP USS-6 and PPP U-7, Impact 5.17-7 would be less than significant.



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### 5.17.5.5 CUMULATIVE IMPACTS

The area considered for cumulative impacts to electricity supplies and facilities is SCE's service area, and the area considered for natural gas is SoCalGas's service area. Forecast total electricity and natural gas supplies for the service areas are identified above. Other projects would increase electricity and natural gas demands.

Electricity demand forecasts are based on climate zones; economic and demographic growth forecasts from Moody's Analytics, IHS Global Insight, and the California Department of Finance; forecast electricity rates; effects of reasonably foreseeable energy efficiency and energy conservation efforts; anticipated partial electrification of portions of the transportation sector, including increasing adoption of light-duty plug-in electric vehicles; demand response measures, such as electricity rates that increase during high-demand times of day; and effects of climate change (CEC 2017).

Natural gas demand forecasts are based on economic outlook, energy-efficiency standards and programs mandated by the California Public Utilities Commission, renewable electricity goals, and conservation savings linked to Advanced Metering Infrastructure (CGEU 2020).

It is anticipated that electricity and natural gas demands by most other projects would be accounted for in the demand forecasts listed above. Other projects would be subject to independent CEQA review, including analysis of impacts to electricity and natural gas supplies. Implementation of all feasible mitigation measures would be required for any significant impacts identified. Cumulative impacts would be less than significant, and project impacts would not be cumulatively considerable.

### 5.17.5.6 LEVEL OF SIGNIFICANCE BEFORE MITIGATION

Upon implementation of regulatory requirements and standard conditions Impact 5.17-8 would be less than significant.

### 5.17.5.7 MITIGATION MEASURES

No mitigation measures are required.

### 5.17.5.8 LEVEL OF SIGNIFICANCE AFTER MITIGATION

Impacts would be less than significant and no mitigation measures are required.

## 5.17.6 References

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### UTILITIES AND SERVICE SYSTEMS

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### 5.18 WILDFIRE

#### 5.18.1 Environmental Setting

##### 5.18.1.1 REGULATORY BACKGROUND

###### **National Fire Protection Association Standards**

National Fire Protection Association (NFPA) codes, standards, recommended practices, and guides are developed through a consensus standards development process approved by the American National Standards Institute. NFPA standards are recommended guidelines in fire protection but are not laws or "codes" unless adopted or referenced as such by the California Fire Code (CFC) or local fire agency. Specific standards applicable to wildland fire hazards include:

- NFPA 1141, Fire Protection Infrastructure for Land Development in Wildlands
- NFPA 1142, Water Supplies for Suburban and Rural Fire Fighting
- NFPA 1143, Wildland Fire Management
- NFPA 1144, Reducing Structure Ignition Hazards from Wildland Fire
- NFPA 1710, Standard for the Organization and Deployment of Fire Suppression Operations, Emergency Medical Operations

###### **State Agencies and Regulations**

###### *California Department of Forestry and Fire Protection*

The California Department of Forestry and Fire Protection (CAL FIRE) is dedicated to the fire protection and stewardship of over 31 million acres of California's wildlands. The Board of Forestry and Fire Protection is a government-appointed body within CAL FIRE. It is responsible for developing the general forest policy of the state, for determining CAL FIRE's guidance policies, and for representing the State's interest in federal forestland in California. Together, the board and CAL FIRE carry out the California Legislature's mandate to protect and enhance the forest resources of all the wildland areas of California that are not under federal jurisdiction. The board also reviews general plan safety elements for compliance with statutes.

###### *Office of State Fire Marshal*

The California Office of the State Fire Marshal supports the mission of CAL FIRE by focusing on fire prevention. Its fire safety responsibilities include: regulating buildings where people live, congregate, or are confined; controlling substances and products that, in and of themselves or by their misuse, may cause injuries, death, and destruction by fire; providing statewide direction for fire prevention in wildland areas; regulating hazardous liquid pipelines; developing and reviewing regulations and building standards; and providing training and education in fire protection methods and responsibilities. These achievements are accomplished through

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### WILDFIRE

major programs, including engineering, education, enforcement, and support from the State Board of Fire Services.

#### *Government Code*

The State of California maintains responsibility for the prevention and suppression of wildfires on land outside incorporated boundaries of a city. In 1991, the state legislature adopted the Bates Bill (Government Code Sections 51175 to 51189) after the fires in the Oakland Hills. The bill requires CAL FIRE to identify and classify areas in local responsibility areas (LRA) that have a “very high fire severity” hazard for wildfires. LRAs are where local governments have the primary responsibility for preventing and suppressing fires. A local agency is required to adopt CAL FIRE’s findings within 120 days of receiving recommendations from CAL FIRE, pursuant to Government Code Section 51178(b), or propose modifications in accordance with state law.

#### *California Fire Code*

The California Fire Code (CFC) contains regulations, in the California Code of Regulations, Title 24, Chapter 9, consistent with nationally recognized and accepted practices for safeguarding life and property from the hazards of fire and explosion and hazardous conditions. The CFC contains fire-safety-related building standards, such as construction standards, vehicular and emergency access, fire hydrants and fire flow, sprinkler requirements, etc. Specific chapters relevant to wildfire are Chapter 49, Requirements for Wildland-Urban Interface, and Chapter 7A of the California Building Code (CBC), Materials and Construction Methods for Exterior Wildfire Exposure. These requirements include ignition-resistant materials, adequate venting, appropriate exterior windows and doors, and adequate roofing in accordance with the CFC and CBC.

#### *Fire Safety Regulations*

The Board of Forestry and Fire Protection is authorized in the Public Resources Code (Sections 4290 and 4291) to adopt minimum fire safety standards for new construction in very high fire hazard severity zones (VHFHSZs) in State Responsibility Areas (SRA). The board published its fire safety regulations in the California Code of Regulations, Title 14. (These standards may differ from those in Appendix D of the CFC.) Fire-safe regulations currently address:

- Article 1: Administration of ordinance and defensible space measures
- Article 2: Emergency access and egress standards (roadways)
- Article 3: Standards for signs identifying streets, roads, and buildings
- Article 4: Emergency water standards for fire use
- Article 5: Fuel modification standards

Ordinances adopted by local governments cannot be less restrictive than the provisions in state law. These regulations would be applied in SRAs outside of the City’s boundaries, such as the SOI and surrounding unincorporated lands.

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### *California Building Code*

The California Building Code (CBC) requires the installation and maintenance of smoke alarms in residential units. Section 907, Fire Alarm and Detection Systems, of the 2019 CBC covers the application, installation, performance, and maintenance of fire alarm systems and their components.

- **California Code of Regulations, Title 24, Part 2, Section 907.2.10.2.** Smoke alarms shall be installed and maintained on the ceiling or wall outside of each separate sleeping area in the immediate vicinity of bedrooms, in each room used for sleeping purposes, and in each story within a dwelling unit.

### *California General Plan Law, OPR General Plan Guidelines*

In 2014, Senate Bill 1241 (SB 1241) amended Government Code Section 65302 to require that safety elements be revised periodically to address wildfire risks in accordance with regulations and guidance from the Board of Forestry and Fire Protection. In addition, cities must submit a revised safety element to the board for consideration and comments no later than 90 days prior to its adoption. Local governments must also respond to how they plan to address the board's comments or make findings to the contrary prior to adoption of the safety element.

To meet the intent of state law, SB 1241 requires the safety element to:

- Identify wildfire hazards with the latest state-prepared, VHFHSZ maps from the Board of Forestry and Fire Protection, US Geological Survey, and other sources.
- Consider guidance given by the Office of Planning and Research's (OPR) Fire Hazard Planning document.
- Demonstrate that the city or contract agency and associated codes satisfactorily address adequate water supply, egress requirements, vegetation management, street signage, land use policies, and other criteria to protect from wildfires.
- Establish in the safety element (and other elements that must be consistent with it) a set of comprehensive goals, policies, and feasible implementation measures for protection of the community from unreasonable risks of wildfire.

### **Regional Laws**

#### *County of Orange and Orange County Fire Authority Local Hazard Mitigation Plan*

The local hazard mitigation plan is a multi-jurisdiction plan developed jointly between the County of Orange and the Orange County Fire Authority (OCFA) that focuses on mitigating all natural hazards impacting unincorporated areas of the county, OCFA's service area, and County- and OCFA-owned facilities. The mission of the LHMP is to promote sound public policy designed to protect residents, critical facilities, infrastructure, key resources, private property, and the environment from natural hazards (OC and OCFA 2015).

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#### *Orange County Fire Authority Fire Prevention Guidelines*

The OCFA's "Fire Master Plan for Commercial and Residential Development" (Guideline B-09) is a general guideline pertaining to the creation and maintenance of fire department access roadways, access walkways to and around buildings, and hydrant quantity and placement as required by the CFC and CBC and as amended by local ordinance.

The OCFA's "Vegetation Management Guideline Technical Design for New Construction Fuel Modification Plans and Maintenance Program" (Guideline C-05) pertains to fuel modification plans. Fuel modification plans require that landscaped areas adjacent to new buildings be dedicated for permanent vegetation management activities. This guideline covers the timing of plans for construction, plan criteria needed for approval, the resource agency plant list for the zones, new construction inspection requirements, and introductory maintenance information

### Local Laws

#### *Laguna Niguel Municipal Code*

Title 8, Division 1, Article 2 adopts and amends the CBC, which includes provisions for fire protection, including sprinkler systems.

Title 11, Division 3, Fire Protection and Explosives, adopts the CFC for the purpose of prescribing regulations governing conditions hazardous to life and property from fire and explosion hazards, except the portions that are added, deleted, modified, or amended in the municipal code.

The purpose of Title 11, Division 15, Emergency Preparedness, is to provide for the preparation and carrying out of plans for the protection of persons and property in the city in the event of an emergency; the direction of the emergency organization; and the coordination of the emergency functions of the city with all other public agencies, corporations, organizations, and affected private persons.

#### *Laguna Niguel General Plan*

The Seismic/Public Safety Element includes goals and policies to ensure public safety, including from wildfires. Applicable goals and policies include:

- **Goal 3:** A safe and secure community free from the threat of personal injury and loss of property.
  - **Policy 3.1.** Provide fire protection to ensure the public's health and safety.
  - **Policy 3.2.** Reduce the risk of wildland fire through fuel modification programs.

### 5.18.1.2 EXISTING CONDITIONS

#### **Wildfire Background**

There are three basic types of wildland fires:



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- **Crown fires** burn trees to their tops; these are the most intense and dangerous wildland fires.
- **Surface fires** burn surface litter and duff. These are the easiest fires to extinguish and cause the least damage to the forest. Brush and small trees enable surface fires to reach treetops and are thus referred to as ladder fuels.
- **Ground fires** occur underground in deep accumulations of dead vegetation. These fires move very slowly but can be difficult to extinguish.

Wildfires burn in many types of vegetation—forest, woodland, grassland, and scrub (including chaparral, sage scrub, and desert scrub).

### *Wildfire Causes*

Although the term wildfire suggests natural origins, a 2017 study that evaluated 1.5 million wildfires in the United States between 1992 and 2012 found that humans were responsible for igniting 84 percent of wildfires, accounting for 44 percent of acreage burned (Balch et al. 2017). The three most common types of human-caused wildfires are debris burning (logging slash, farm fields, trash, etc.); arson; and equipment use. Power lines can also ignite wildfires through downed lines, vegetation contact, conductors that collide, and equipment failures (TWMP 2018).

Wildfire season in the West recently has lengthened from an average of between five and seven months to year-round, and the number of large wildfires (i.e., greater than 1,000 acres) has increased from 140 to 250 per year. At the same time, the average annual temperature in the West has risen by nearly two degrees Fahrenheit since the 1970s and the winter snowpack has declined (CAL FIRE 2018). Frequent wildfires reduce recovery of shrubs and trees—especially shrubs and trees that must produce seeds to regenerate after fire—and increase invasion of nonnative grasses; that is, they tend to convert native shrublands to nonnative grassland (USGS 2018a). Nonnative grasses are generally more flammable than the chaparral and sage scrub vegetation that is replaced, so conversion exacerbates wildfire hazards.

### *Secondary Effects*

Secondary effects of wildfire include debris flows post-fire and air pollution due to the smoke. The following sections describe the hazardous conditions created by these secondary wildfire effects.

### *Debris Flows*

Post-fire landslide hazards include 1) fast-moving, highly destructive debris flows that can happen when wildfires are followed by high intensity rainfall events and 2) flows that are generated more slowly by root decay and loss of soil strength. Fires increase the potential for debris flows by increasing the imperviousness of soil so that it repels water and by destroying vegetation that would slow and absorb rainfall and whose roots would help stabilize soil (ANR 2009). The burning of vegetation and soil on slopes more than doubles the rate that water will run off into watercourses (USGS 2018b). Post-fire debris flows are particularly hazardous because they often give little warning, destroy objects in their paths, strip vegetation, block drainage ways, damage structures, and endanger human life. Debris flows differ from mudflows in that debris flows are composed of

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larger particles. Post-fire debris flows are most common in the two years after a fire and are usually triggered by heavy rainfall. It takes much less rainfall to trigger debris flows from burned areas than from unburned areas.

#### *Air Pollution*

Smoke is a complex mixture of gases and fine particles produced when wood and other organic materials burn. The biggest health threat from smoke is from fine particles (PM<sub>2.5</sub>), which are microscopic particles that can penetrate the lungs and cause a range of health problems, from burning eyes and a runny nose to aggravated chronic heart and lung diseases. Exposure to particulate pollution is even linked to premature death. Some populations are more sensitive than others to smoke. For instance, people with heart or lung disease, the elderly, children, people with diabetes, and pregnant women (Airnow 2018).

#### **Wildfire History**

Since 1969, Orange County has received 35 federal disaster proclamations related to fire hazards (see Table 5.18-1).

**Table 5.18-1 Federal Disaster Declarations for Orange County**

Disaster Number	(Fiscal) Year	Incident Type	Incident Title
FM-5383	2021	Fire	BOND FIRE
FM-5381	2021	Fire	BLUE RIDGE FIRE
FM-5380	2021	Fire	SILVERADO FIRE
FM-5268	2018	Fire	WILDFIRES (HOLY FIRE)
DR-4344	2018	Fire	CANYON 2 FIRE
FM-5213	2017	Fire	CANYON FIRE
DR-4305	2017	Flood	SEVERE WINTER STORMS, FLOODING, AND MUDSLIDES
DR-1952	2011	Flood	SEVERE WINTER STORMS, FLOODING, AND DEBRIS AND MUD FLOWS
FM-2792	2008	Fire	FREEWAY FIRE COMPLEX
DR-1810	2008	Fire	WILDFIRES
FM-2737	2007	Fire	SANTIAGO FIRE
FM-2683	2007	Fire	241 FIRE
EM-3279	2007	Fire	WILDFIRES
DR-1731	2007	Fire	WILDFIRES, FLOODING, MUD FLOWS, AND DEBRIS FLOWS
FM-2630	2006	Fire	SIERRA FIRE
DR-1585	2005	Severe Storm	SEVERE STORMS, FLOODING, LANDSLIDES, AND MUD AND DEBRIS FLOWS
EM-3248	2005	Hurricane	HURRICANE KATRINA EVACUATION
DR-1577	2005	Severe Storm	SEVERE STORMS, FLOODING, DEBRIS FLOWS, AND MUDSLIDES
FM-2405	2002	Fire	ANTONIO FIRE
DR-1203	1998	Severe Storm	SEVERE WINTER STORMS AND FLOODING
EM-3120	1996	Fire	SEVERE FIRESTORMS
DR-1046	1995	Severe Storm	SEVERE WINTER STORMS, FLOODING LANDSLIDES, MUD FLOW

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WILDFIRE**Table 5.18-1 Federal Disaster Declarations for Orange County**

Disaster Number	(Fiscal) Year	Incident Type	Incident Title
DR-1044	1995	Severe Storm	SEVERE WINTER STORMS, FLOODING, LANDSLIDES, MUD FLOWS
DR-1008	1994	Earthquake	NORTHRIDGE EARTHQUAKE
DR-1005	1993	Fire	FIRES, MUD/LANDSLIDES, FLOODING, SOIL EROSION
DR-979	1993	Flood	SEVERE WINTER STORM, MUD & LAND SLIDES, & FLOODING
DR-935	1992	Flood	RAIN/SNOW/WIND STORMS, FLOODING, MUDSLIDES
DR-812	1988	Flood	SEVERE STORMS, HIGH TIDES & FLOODING DR-799 1987 Earthquake EARTHQUAKE & AFTERSHOCKS
DR-677	1983	Coastal Storm	COASTAL STORMS, FLOODS, SLIDES & TORNADOES
DR-657	1982	Fire	URBAN FIRE
DR-635	1980	Fire	BRUSH & TIMBER FIRES
DR-615	1980	Flood	SEVERE STORMS, MUDSLIDES & FLOODING
DR-547	1978	Flood	COASTAL STORMS, MUDSLIDES & FLOODING
DR-566	1978	Flood	Flood LANDSLIDES
DR-253	1969	Flood	SEVERE STORMS & FLOODING

Source: OCFA 2021

**Wildfire Hazard in Laguna Niguel**

The topography, vegetation, and development patterns in Laguna Niguel make the City susceptible to fire hazards. The City is marked by rolling hills and valleys, and development occurs on the ridgelines and in the valleys. Vegetation, including native plant communities (chaparral and ruderal vegetation), is also highly combustible. The fire hazard is at its peak during the summer months when plant material that has grown up during the spring dries and becomes fuel (Laguna Niguel 1992).

Pursuant to Public Resources Code Sections 4201 to 4204 and Government Code Sections 51175 to 51189, CAL FIRE is mandated to identify fire hazard severity zones for all communities in California based on fuels, terrain, weather, and other relevant factors. CAL FIRE has mapped three hazard ranges—moderate, high, and very high—for most regions. Local governments must consider CAL FIRE’s determination when they adopt their own determinations and plan for fire services. The VHFHSZ encompasses parts of the western side of the City and covers residential and open space areas. The project site is outside but borders the eastern side of the VHFHSZ in an LRA (see Figure 5.8-1, *Very High Fire Hazard Severity Zone in Laguna Niguel*).

**Fire Protection**

The City partners with OCFA for fire and emergency medical services. OCFA protects more than 1.5 million residents via 71 fire stations throughout Orange County. OCFA provides comprehensive emergency services to the residents of Laguna Niguel through a regional approach. Laguna Niguel is part of Division 3 and Division 5 of the OCFA, which encompass the southern and eastern areas of Orange County. OCFA has three stations in Laguna Niguel (Station Nos. 5, 39, and 49), and each station’s community service area encompasses

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its immediate geographical area. In total, OCFA's Laguna Niguel stations are staffed with 36 full-time employees, including 9 fire captains, 9 engineers, 12 firefighters, and 6 firefighter paramedics. OCFA is also currently exploring locations for an additional fire station in Laguna Woods, which could allow for more resource availability in Laguna Niguel once in operation.

#### 5.18.2 Thresholds of Significance

According to Appendix G of the CEQA Guidelines and the City's CEQA Manual, a project would normally have a significant effect on the environment if located in or near state responsibility areas or lands classified as very high fire hazard severity zones the project would:

- W-1 Substantially impair an adopted emergency response plan or emergency evacuation plan.
- W-2 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.
- W-3 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.
- W-4 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.

#### 5.18.3 Plans, Programs, and Policies

- PPP W-1 The proposed project is required to comply with the California Building Code and California Fire code as amended by the Laguna Niguel Municipal Code.
- PPP W-2 Projects located in portions of the City that are designated as VHFHSZs are required to provide fuel modification depending on the project site's proximity to open space.
- PPP W-3 Fuel modification must be provided within a project site's boundaries or within an offsite easement granted for fuel modification. If an offsite easement is being used for fuel modification that easement must be secured prior to completion of the environmental document. Securing the offsite fuel modification cannot be deferred until after approval of the project.
- PPP W-4 The Applicants are required to prepare preliminary fuel modification plans. The preliminary fuel modification plan shall be reviewed and approved by Staff and the OCFA prior to completion of the environmental document.

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### 5.18.4 Environmental Impacts

#### 5.18.4.1 IMPACT ANALYSIS

The following impact analysis addresses thresholds of significance. The applicable thresholds are identified in brackets after the impact statement.

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**Impact 5.18-1: The proposed project would not substantially impair an adopted emergency response plan or emergency evacuation plan. [Threshold W-1]**

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The project site is adjacent to but outside of an LRA for VHFHSZ (CAL FIRE 2011, 2019).

OCFA provides fire and emergency medical response to Laguna Niguel, and OCFA and the Orange County Sheriff's Department (OCSD) implement the County's emergency operations plan. The County's plan addresses how the County should respond to extraordinary events or disasters (including urban and wildland fires) from preparedness phase through recovery. OCFA Fire Station No. 5 is within the project site at 23600 Pacific Island Drive.

Construction activities would be conducted in accordance with the California Manual of Uniform Traffic Control Devices (MUTCD) to ensure traffic safety on public streets, highways, pedestrian walkways, and bikeways. Construction contractors would be required to comply with all City of Laguna Niguel standard conditions pertaining to construction including work hours, traffic control plan, haul route, and access. Construction of the proposed project would comply with City standards and regulations relating to emergency access, such as obtaining an encroachment permit for construction work in public rights-of-way. Where possible, construction related trips would be restricted to off-peak hours. Construction activities associated with the proposed project, including staging and stockpiling, would occur within the project boundaries and not on any major arterials or highways that could be used during potential emergency situations.

Additionally, storage of construction materials and construction equipment—such as construction office trailers, cranes, storage containers, and trailers detached from vehicles—is prohibited on City property, including City streets, without a permit. Project construction and operation would comply with City requirements regarding storage on City property, including City streets. Construction material and equipment would be staged or stored on-site and would not interfere with emergency access to or evacuation from surrounding properties.

The proposed project would provide site-specific on- and off-site access and circulation for emergency vehicles and services during the project's operational phase. Additionally, design of the proposed project would comply with the CBC and CFC as adopted by the City. During project operation, Pacific Island Drive, Crown Valley Parkway, and Alicia Parkway would still be available as major evacuation routes. No policy or procedural changes to an existing risk management plan, emergency response plan, or evacuation plan would be required due to project implementation. The proposed project would not hinder the implementation of the County's emergency operations plan. Therefore, the proposed project would not substantially impair an adopted emergency response plan or emergency evacuation plan.

***Level of Significance Before Mitigation:*** Less than significant.

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**Impact 5.18-2: The proposed project would not expose project occupants to pollutant concentrations from a wildfire or the uncontrolled spread of a wildfire due to slope, prevailing winds, and other factors exacerbating wildfire risks. [Threshold W-2]**

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The project site is located adjacent to but outside of an LRA VHFHSZ, (CAL FIRE 2011, 2019). OCFA Fire Station No. 5 is located within the project site at 23600 Pacific Island Drive. Currently, the project site contains approximately 65.1 percent pervious surfaces that are largely undeveloped. This undeveloped portion of the project site is covered by grasses and other vegetation. Construction of the proposed project would remove the undeveloped land from the project site and increase impervious surfaces, most of which are nonflammable. The proposed project's landscaping would comply with landscaping standards for vegetation type and would be irrigated and actively maintained to avoid excessive dry or dead vegetation, and therefore would not exacerbate wildfire risk. The project would also place electrical lines underground, which avoids the risk of fire caused by downed electrical lines.

The site is at the bottom of a steep hillside that borders the project's western boundary. As shown in Figure 4-1, *Site Topography*, the terrain is varied throughout the project site. There is a net elevation difference of 50 feet from the low point of approximately 320 feet above mean sea level (amsl) in the southern corner (site entrance at Crown Valley Parkway) to 370 feet amsl at the top of a small knoll in the northern corner of the site (near Pacific Island Drive/Alicia Parkway intersection). Wildfire hazards in southern California are at their greatest when Santa Ana winds—hot, dry, northeasterly winds—are blowing, usually in autumn. The risk of wildfire during Santa Ana risks is offset by the irrigation and maintenance of the landscaping, compliance with the CBC and CFC as adopted by the City, and by the lack of adjacent wildlands northeast of the project site that would be the most susceptible to Santa Ana winds. Thus, the proposed project would not exacerbate wildfire risks in the area and thus would not expose project occupants to pollutant concentrations from wildfire or the uncontrolled spread of wildfire.

*Level of Significance Before Mitigation:* Less than significant.

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**Impact 5.18-3: Implementation of the proposed project would not 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. [Threshold W-3]**

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The project site is adjacent to but outside of a VHFHSZ in an LRA; however, the project site is in an urbanized area surrounded by commercial and residential uses. It is partially developed and served by existing roadways, water, and other utilities. The proposed project would not require the construction of off-site infrastructure that may exacerbate fire risk or may result in impacts to the environment. All on-site utilities would be underground and in roadways, and off-site utilities connections would be underground. The project site is not directly adjacent to wildlands that would require fuel breaks. Therefore, implementation of the proposed project would not require installation or maintenance of infrastructure that may exacerbate fire risk or that may result in impacts to the environment.

*Level of Significance Before Mitigation:* Less than significant.

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**Impact 5.18-4: The proposed 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. [Threshold W-4]**

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The proposed project would not expose people or structures to significant risks due to postfire slope instability or drainage changes. The project site is in a landslide hazard zone, but most of the slopes are off-site, and the proposed project would include the construction of retaining walls and comply with the requirements of California Building Code, which lower existing landslide risk. As discussed in Section 5.6, *Geology and Soils*, the proposed project's impact related to landslides would be less than significant. The project site is not in or immediately adjacent to flood risk areas (FEMA 2019; Laguna Niguel 1992). As discussed in Section 5.9, *Hydrology and Water Quality*, the proposed project would not result in any flooding impacts after compliance with regulatory compliance measures.

**Level of Significance Before Mitigation:** Less than significant.

### 5.18.5 Cumulative Impacts

The area considered for cumulative impacts are lands in Orange County that are categorized SRA, federal responsibility area, or VHFHSZ in LRA. OCFA provides fire suppression in VHFHSZs in LRAs. Cumulative projects in the region could exacerbate wildfire hazards due to factors such as slope and prevailing winds and could expose occupants to pollutant concentrations from a wildfire or the uncontrolled spread of wildfire. Cumulative projects could extend infrastructure such as roads and overhead power lines through VHFHSZs and thus could exacerbate wildfire risk. Cumulative projects could also cause flooding or debris flows due to postfire slope instability. However, all development would be mandated to comply with requirements of the CBC and CFC, as adopted by each project's respective lead agencies. Compliance with the CBC and CFC would ensure that building materials, construction methods, fuel modification, and defensible space are adequate to lower fire risk. Since the project is not located in a VHFHSZ, includes irrigated and maintained vegetation, and is not located adjacent to wildlands, especially in the northeast quadrant where fire risk would be the highest, the proposed project does not cause a significant cumulative impact.

### 5.18.6 Level of Significance Before Mitigation

Upon implementation of regulatory requirements and standard conditions of approval, some impacts would be less than significant: 5.18-1, 5.18-2, 5.18-3, and 5.18-4.

### 5.18.7 Mitigation Measures

No mitigation measures are required.

### 5.18.8 Level of Significance After Mitigation

Less than significant prior to mitigation.

## 5. Environmental Analysis

### WILDFIRE

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## 6. Significant Unavoidable Adverse Impacts

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At the end of Chapter 1, *Executive Summary*, is a table that summarizes the impacts, mitigation measures, and levels of significance before and after mitigation. Mitigation measures would reduce the level of impact, but the following impacts would remain significant, unavoidable, and adverse after mitigation measures are applied:

### Greenhouse Gas Emissions

- **Impact 5.7-1.** Operation of the proposed project would generate a cumulatively considerable net increase in GHG emissions, that would exceed the South Coast AQMD Working Group bright-line threshold as well as the City of Laguna Niguel's 3,000 MTCO<sub>2e</sub> significance threshold. The project is estimated to generate 11,651 metric tons of CO<sub>2</sub>-equivalent (MTCO<sub>2e</sub>) annually from operational activities and would exceed SCAQMD's bright-line screening threshold.

Mitigation Measures GHG-1 through GHG-3 require the use of alternative-fueled vehicles, nonmotorized transportation, and require energy-efficient appliances. These measures ensure that GHG emissions from the buildout of the proposed project would be minimized. However, additional federal, state, and local measures would be necessary to reduce GHG emissions under the proposed project to meet the long-term GHG reduction goals under SB 32. The project has no control over state and regional solutions to reduce mobile emissions and the use of mass transit, alternative modes of transportation, and electric vehicles cannot be estimated with certainty. There are no additional feasible and quantifiable means of reducing GHG emissions below the level of significance. Since no additional statewide measures are currently available, Impact 5.7-1 would remain significant and unavoidable.

- **Impact 5.7-2.** The proposed project would potentially conflict with the Scoping Plan. Implementation of Mitigation Measure GHG-1 through GHG-3 would reduce GHG emissions to the extent feasible. However, the project would result in a substantial increase in GHG emissions; and therefore, it is conservatively considered to potentially conflict with the Scoping Plan. Impact 5.7-2 would remain significant and unavoidable.

## 6. Significant Unavoidable Adverse Impacts

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# 7. Alternatives to the Proposed Project

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## 7.1 INTRODUCTION

### 7.1.1 Purpose and Scope

The California Environmental Quality Act (CEQA) requires that an environmental impact report (EIR) include a discussion of reasonable project alternatives that would “feasibly attain most of the basic objectives of the project, but would avoid or substantially lessen any significant effects of the project, and evaluate the comparative merits of the alternatives” (CEQA Guidelines § 15126.6[a]). As required by CEQA, this chapter identifies and evaluates potential alternatives to the proposed project.

Section 15126.6 of the CEQA Guidelines explains the foundation and legal requirements for the alternatives analysis in an EIR. Key provisions are:

- “[T]he discussion of alternatives shall focus on alternatives to the project or its location which are capable of avoiding or substantially lessening any significant effects of the project, even if these alternatives would impede to some degree the attainment of the project objectives, or would be more costly.” (15126.6[b])
- “The specific alternative of ‘no project’ shall also be evaluated along with its impact.” (15126.6[e][1])
- “The no project analysis shall discuss the existing conditions at the time the notice of preparation is published, or if no notice of preparation is published, at the time environmental analysis is commenced, as well as what would be reasonably expected to occur in the foreseeable future if the project were not approved, based on current plans and consistent with available infrastructure and community services. If the environmentally superior alternative is the ‘no project’ alternative, the EIR shall also identify an environmentally superior alternative among the other alternatives.” (15126.6[e][2])
- “The range of alternatives required in an EIR is governed by a ‘rule of reason’ that requires the EIR to set forth only those alternatives necessary to permit a reasoned choice. The alternatives shall be limited to ones that would avoid or substantially lessen any of the significant effects of the project.” (15126.6[f])
- “Among the factors that may be taken into account when addressing the feasibility of alternatives are site suitability, economic viability, availability of infrastructure, general plan consistency, other plans or regulatory limitations, jurisdictional boundaries..., and whether the proponent can reasonably acquire, control or otherwise have access to the alternative site (or the site is already owned by the proponent)” (15126.6[f][1]).
- “Only locations that would avoid or substantially lessen any of the significant effects of the project need be considered for inclusion in the EIR.” (15126.6[f][2][A])

## 7. Alternatives to the Proposed Project

- “An EIR need not consider an alternative whose effect cannot be reasonably ascertained and whose implementation is remote and speculative.” (15126.6[f][3])

For each development alternative, this analysis:

- Describes the alternative.
- Analyzes the impact of the alternative as compared to the proposed project.
- Identifies the impacts of the project that would be avoided or lessened by the alternative.
- Assesses whether the alternative would meet most of the basic project objectives.
- Evaluates the comparative merits of the alternative and the project.

According to Section 15126.6(d) of the CEQA Guidelines, “[i]f an alternative would cause...significant effects in addition those that would be caused by the project as proposed, the significant effects of the alternative shall be discussed, but in less detail than the significant effects of the project as proposed.”

### 7.1.2 Project Objectives

Objectives for the Laguna Niguel City Center Mixed Use Project (proposed project) will aid decision makers in their review of the project and associated environmental impacts:

1. Create a dynamic mix of commercial uses, including retail, restaurant, creative office, health/wellness, and civic uses, which will be unique and distinct from other commercial projects in the City and will be complemented by highly amenitized residential apartment buildings, culminating in a vibrant city center in the heart of Laguna Niguel.
2. Create a financially feasible project that promotes the City’s economic well-being with (i) a commercial core that generates local tax revenue and provides new jobs; and (ii) a residential component that creates housing options for existing and new residents to support local businesses, including dining, shopping, office, and entertainment venues.
3. Replace the existing Laguna Niguel library with a larger, innovative, and architecturally significant library with modern programming and technologies to better serve the residents of Laguna Niguel for decades to come. The new library will be an integral part of the project and designed to facilitate connections to and integration with surrounding retail, office, and residential uses.
4. Incorporate a pedestrian-oriented town green and gathering place for the community, connected by an integrated walkable network of passive and active pedestrian-oriented paseos and open spaces weaving through the retail and commercial core.
5. Provide for investment in and redevelopment of underutilized property in the Town Center Opportunity Area by replacing the vacant South County Justice Center and undeveloped county land with a project that will generate new sources of property and sales tax revenue for the City and County.
6. Create a visually impactful, architecturally distinct design and retailing experience that will attract differentiated retail, restaurant, and commercial tenants to the City of Laguna Niguel and provide unique live, work, and play opportunities for residents of Laguna Niguel and surrounding communities.

## 7. Alternatives to the Proposed Project

7. Improve and enhance the City's profile and amenities for residents by providing a unique mixed-use environment not seen elsewhere in South Orange County that will attract differentiated retail and commercial tenants and a unique, high-quality, pedestrian-oriented commercial center including a state-of-the-art library that the community can enjoy.

### 7.1.3 Significant Impacts of the Project

The primary consideration in defining project alternatives is their potential to reduce or eliminate significant impacts compared to the proposed project. The CEQA requirement for consideration of alternatives is well settled—an EIR must describe a reasonable range of alternatives to the proposed project that would feasibly attain most of the basic objectives of the project and would also avoid or substantially lessen any of the significant impacts of the project, and it must evaluate the comparative merits of the alternatives. CEQA requires a reasonable range of alternatives to foster informed decision-making and public participation. As summarized in Chapter 6, *Significant Unavoidable Adverse Impacts*, upon implementation of recommended mitigation measures, the project would result in the following significant and unavoidable impacts:

#### Greenhouse Gas Emissions

- **Impact 5.7-1** Operation of the proposed project would generate a cumulatively considerable net increase in GHG emissions that would exceed the South Coast AQMD Working Group bright-line threshold.

## 7.2 ALTERNATIVES CONSIDERED AND REJECTED DURING THE SCOPING/PROJECT PLANNING PROCESS

“Among the factors that may be used to eliminate alternatives from detailed consideration in an EIR are: (i) failure to meet most of the basic project objectives, (ii) infeasibility, or (iii) inability to avoid significant environmental impacts” (CEQA Guidelines § 15126.6[c]).

### 7.2.1 No Residential Development Alternative

Comments received during the public scoping meeting expressed concern about developing additional multifamily residential units in Laguna Niguel, particularly given the recent residential development approved in the Gateway Specific Plan area near Interstate 5. Under this alternative, the project site would be developed as proposed minus the 275 residential units.

The project site would be developed under a lease arrangement with the County of Orange, which owns the property. The project applicant has indicated that the residential component of the project is required for economic feasibility. The multifamily residential component provides critical economic support for the commercial project that enables development of higher quality commercial spaces and extensive community benefits, including a large open space and new library. A No Residential Development Alternative (with the exception of the Existing General Plan alternative), was not considered because it was determined to be economically infeasible by the County (owner of the property) and the County has indicated it would not pursue a commercial project without a significant residential component.

## 7. Alternatives to the Proposed Project

### 7.2.2 Alternative Development Areas

CEQA requires that the discussion of alternatives focus on alternatives to the project or its location that can avoid or substantially lessen any significant effects of the project. The key question and first step in the analysis is whether any of the significant effects of the project would be avoided or substantially lessened by putting the project in another location. Only locations that would avoid or substantially lessen any of the significant effects of the project need be considered for inclusion in the EIR (Guidelines Sec. 15126[5][B][1]). In general, any development of the size and type proposed by the project would have substantially the same impacts on air quality, greenhouse gas emission, hydrology/water quality, land use/planning, noise, population/housing, public services, recreation, transportation/traffic, and utilities/service systems. Without a site-specific analysis, impacts on aesthetics, biological resources, cultural resources, geology/soils, hazards and hazardous materials, and mineral resources cannot be evaluated.

An alternative development area would be required to have adequate acreage for all components—residential and nonresidential uses—of the Laguna Niguel City Center project. Tables B-4 and B-5 and Figure B-1 of the City of Laguna Niguel Housing Element 2021-2029 detail and illustrate an inventory of vacant and underutilized sites suitable for residential development in the City. The underutilized sites are within the Gateway Specific Plan area and are already planned for residential development. All other available vacant sites are either too small to accommodate the development footprint of the proposed project or are designated “Residential Detached” in the Land Use Element of the Laguna Niguel General Plan and would not allow development of the nonresidential component of the proposed project. Also, these vacant parcels are adjacent to existing single-family residential subdivisions and would not be an optimal location for a mixed-use “downtown” development. Relocating the proposed project within the City would not avoid or substantially lessen the significant and unavoidable GHG impact of the proposed project. Thus, only the proposed project site in the City’s town center would accommodate the proposed project.

Additionally, the approximately 25-acre project site is owned by the County of Orange and Laguna Niguel Town Center Partners LLC has an option to lease the project site and to develop the proposed project. Thus, it would be economically difficult for the project applicant to purchase or lease another suitable site in Laguna Niguel that can accommodate the proposed development. Given the preceding factors, an alternative development location was rejected from further analysis.

### 7.2.3 County Reuse

An alternative that results in the County reuse of the project site was considered for analysis. County reuse could include, but is not limited to, an expanded maintenance yard, County administrative offices, wellness facilities, supportive housing, and emergency shelters. In 2018, County of Orange staff was directed to develop operational plans for emergency shelters (limiting capacity to 100 individuals). The project site was identified and reviewed for emergency homeless housing and ultimately rejected as a potential site for this use by the County due to substantial public opposition. This alternative was rejected from further review because this project alternative does not meet any of the project objectives.

## 7. Alternatives to the Proposed Project

### 7.3 ALTERNATIVES SELECTED FOR FURTHER ANALYSIS

Based on CEQA requirements, two “no project” alternatives were defined for further analysis: No Development, and Development Under the Existing General Plan. Two other development alternatives were defined for their potential to reduce or eliminate significant impacts of the proposed project, and to potentially attain most of the basic objectives of the project. These four alternatives were determined to represent a reasonable range of alternatives for analysis:

- No Project/No Development Alternative
- No Project: Development Under Existing General Plan Land Use Designation Alternative
- Residential Only Development Alternative
- Reduced Commercial Development Alternative

Table 7-1, *Project Alternatives: Buildout Statistical Summary*, provides a summary of general socioeconomic buildout projections for the project alternatives compared to the proposed project. The estimates represent projected buildout for each of the alternatives and show dwelling units, population and employment projections, and the jobs-to-housing ratio for each of the alternatives.

**Table 7-1 Project Alternatives: Buildout Statistical Summary**

	Proposed Project	No Project/No Development Alternative	No Project – Development Under Existing General Plan Land Use Designation Alternative	Residential Development Only Alternative	Reduced Commercial Development Alternative
Residential Units	275	0	0	400	275
Population	704	0	0	1,024	704
Nonresidential SF	174,851 <sup>1</sup>	23,500 <sup>2</sup>	348,480	0	23,750
Commercial	77,110		130,680		23,750
Office	81,451		217,800		
Library	16,290				
Employment	412	19	983 <sup>3</sup>	0	62
Jobs-to-Housing Ratio	2.6	0	NA	NA	0.22

Source: PlaceWorks 2021.

<sup>1</sup> The total nonresidential SF, including the 16,290 SF library is included in this table. Projected jobs are based on the additional net square footage (the total shown minus the existing 14,400 SF library)

<sup>2</sup> Existing nonresidential SF only accounts for the 9,100 SF County maintenance yard and the 14,400 SF Laguna Niguel Library (does not include the 33,300 SF vacant courthouse).

<sup>3</sup> This employment number assumes commercial would be split between fast-casual restaurant and retail.

- **No Project/No Development Alternative.** The No Project/No Development Alternative would keep the project site as is, and no development would occur. Therefore, buildout of this alternative would preserve existing uses on-site, including the 9,100-square-foot County maintenance yard and 14,400 square-foot Laguna Niguel Library. The vacant, 33,300-square-foot courthouse is not included because it is not in operation. The County maintenance yard currently employs 7 workers, and the library employs approximately 11 employees.

## 7. Alternatives to the Proposed Project

- **No Project: Development Under Existing General Plan Land Use Designation Alternative.** Under this alternative, the site would be developed based on the current Laguna Niguel General Plan land use designation of “Community Commercial,” “Professional Office,” and “Public/Institutional” and on the property’s current zoning of “Community Commercial” (CC) (see Figure 4-1, *Existing General Plan Land Use Designations*). The potential range and combinations of development and land uses allowable are extensive, including: regional commercial centers and shopping complexes; professional offices, corporate headquarters, research and development, and administrative offices; or a range of public, quasi-public, and special purpose private facilities aimed at providing governmental or social services to the community. This alternative assumes development in accordance with the anticipated land use mix in the current General Plan (Community Profile Area 14). The development of the site would include a maximum of 130,680 square feet of commercial/retail space and a maximum of 217,800 square feet of office space. As with the proposed project, it is assumed that a new library within the commercial portion of the development would replace the existing library. It is unlikely this alternative would include a publicly accessible town green because of space limitations given the amount of commercial development.
- **Residential Development Only Alternative.** Under this alternative, nonresidential development would be eliminated, and the number of residences would increase to 400 units. The existing library and fire station would remain. This alternative would not include a parking structure. Resident and guest parking would be provided by surface parking and spread throughout the project site. The maximum number of 400 units was determined by the approximate threshold with the potential to reduce the greenhouse gas emissions impact of the proposed project to less than significant. In addition, 400 units is a reasonable estimate of the number of units that could be developed on the site without also constructing structured parking. This alternative would introduce approximately 1,024 residents. This alternative would likely not include a publicly accessible town green because the residences would be distributed throughout the site.
- **Reduced Commercial Development Alternative.** This alternative would retain 275 residential units but reduce the square footage of nonresidential uses as needed to reduce greenhouse gas emissions to less than significant. Office uses would be eliminated, and commercial (retail and restaurant uses) would be reduced to 23,750 square feet—a reduction of almost 137,000 square feet of commercial in comparison to the proposed project (see Table 7-1). This alternative would introduce approximately 704 residents and 62 employees. The limited commercial for this alternative would not support the expensive, podium style construction for apartments. With the exception of the Crown Valley commercial frontage, the entire site would be developed with garden style, wood frame walk up apartments with surface parking. This alternative would likely not include a publicly accessible town green because of financial feasibility.

An EIR must identify an “environmentally superior” alternative, and where the No Project Alternative is identified as environmentally superior, the EIR is required to identify as environmentally superior another of the alternatives evaluated. Each alternative’s environmental impacts are compared to the proposed project and determined to be environmentally superior (reduced impact), neutral (similar impact), or inferior (greater impact). Impacts found to be potentially significant prior to mitigation and impacts found to be significant and unavoidable even after implementation of mitigation measures are used in making the final determination of whether an alternative is environmentally superior or inferior to the proposed project. Section 7.4 identifies the environmentally superior alternative.



## 7. Alternatives to the Proposed Project

### 7.3.1 Environmental Impact Comparison

Table 7-2, *Environmental Impact Comparison: Project Alternatives*, assesses the relative impact for each project alternative in comparison to the proposed project. All the environmental categories evaluated for the proposed project in this Draft EIR are compared. The table shows whether the impact is “less than” (LT), “greater than” (GT), or “similar to” (S) the respective environmental impact for the proposed project. The table also provides a notation if an alternative is expected to eliminate a significant impact of the proposed project (reduce its severity to less than significant).

## 7. Alternatives to the Proposed Project

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7. Alternatives to the Proposed Project

Table 7-2 Environmental Impact Comparison

Impact	No Project/No Development	No Project: Development Under Existing General Plan Land Use Designation Alternative	Residential Development Only Alternative	Reduced Commercial Development Alternative
<b>Aesthetics</b>	No development would occur under this alternative; thus, the visual character of the site would remain as is. The existing site encompasses the South County Justice Center building (closed in 2008), the County maintenance yard, the Laguna Niguel Library, and their associated surface parking lots. The structures are along the perimeter of the project site near the adjacent roadways; the large middle and western portions of the site are vacant and undeveloped (approximately 72 percent of the property). Sources of light on-site include building (exterior and interior), security, and parking-area lighting for the County maintenance yard and library. Demolition of the existing site improvement and development of the proposed project would substantially change the visual character of the project site. Development as proposed would also introduce new sources of lighting and glare from stationary and operational sources. As detailed in Section 5.1, <i>Aesthetics</i> , and shown in the conceptual renderings, the proposed project would introduce high quality designed buildings and landscaping. However, since aesthetic impacts are largely subjective, it has been determined that the impact of aesthetics under this alternative would be reduced because there would be no change from existing conditions.	Under this alternative, the development would build out the project site up to the maximum allowable area under the current general plan designation. The maximum allowable height under the existing general plan designation is 35 feet to 45 feet. The building heights under this alternative would be lower than the proposed project residential buildings of 50 feet. This alternative may result in fewer buildings but due to a substantial greater non-residential square footage in comparison to the proposed project, the site massing would likely be comparable. No scenic vistas or resources would be obstructed. This alternative would introduce lighting to the project site due to building security lighting, surface parking lights, and car headlights. Overall, aesthetic impacts as a result of this alternative would be similar than the proposed project's aesthetic impacts.	The project site would be developed with more residential units across the project site, and the nonresidential development would be eliminated. The residential units would be increased from 275 to 400 and would include surface parking. This alternative would likely result in less building area, and consequently the need for less outdoor lighting. The nighttime lighting would consist of residential security and parking lighting. No scenic vistas or resources would be obstructed. Overall, aesthetic impacts would be reduced under this alternative.	The project site would be developed with residential buildings and commercial development consisting of daily needs retail along the Crown Valley Parkway. As with the proposed project, this alternative would include 275 residential units, however, the nonresidential development would be reduced by approximately 136,800 square feet. In comparison to the proposed project, all of the residential product would be garden style, walk-up apartments with surface parking. A town-green, an aesthetic resource for the proposed project, would not be provided under this alternative. Since development would be distributed throughout the project site, outdoor lighting would also be spread throughout the project site. In comparison to the more intensive commercial use, lighting may be slightly reduced for this alternative. No scenic vistas or resources would be obstructed. Overall, aesthetic impacts would be different, but similar under this alternative.
	LT	S	LT	S
<b>Air Quality</b>	Since no new development would occur under this alternative, it would not generate any construction emissions or result in an increase in operational emissions. Therefore, less-than-significant operational emissions impacts of the project would be eliminated under this alternative. Sensitive receptors would not be exposed to substantial pollutant concentrations in exceedance of South Coast Air Quality Management District (AQMD) thresholds. Overall, air quality impacts would be reduced under this alternative.	Construction of the commercial and office buildings, parking, and associated site improvements would require a similar construction schedule with similar grading activities. Due to the substantial increase in non-residential square footage in comparison to the proposed project, the overall footprint would likely be similar to the proposed project. Overall grading and construction air quality impacts would be similar. Operational emissions of the commercial and office buildings would be greater compared to the proposed project because this alternative would generate more traffic, resulting in greater overall emissions.	This alternative would increase the residential units by 125 units to a total of 400 units and eliminate the nonresidential development on the project site. The residential units would be distributed throughout the entire site, resulting in a building footprint similar to the proposed project. Construction equipment, however, would likely be reduced in comparison to the proposed project. And although VMT/capita may be increased (since there would be no trip capture related to mixed-use opportunities), the total number of vehicle miles traveled and related air emissions would be reduced. As with the proposed project, impacts would be less than significant. However, because this alternative would reduce the overall scale and intensity of the project overall, air quality impacts would be reduced under this alternative.	This alternative would reduce nonresidential development on the project site by 136,811 square feet compared to the proposed project, resulting in substantially fewer employees, commercial patrons and vehicle trips. This alternative would decrease the nonresidential development footprint, decrease pollutants produced during construction, and decrease the amount of energy used in businesses. This alternative would reduce VMT and related traffic air quality emissions. Overall air quality impacts would be reduced under this alternative.
	LT	GT	LT	LT

7. Alternatives to the Proposed Project

Table 7-2 Environmental Impact Comparison

Impact	No Project/No Development	No Project: Development Under Existing General Plan Land Use Designation Alternative	Residential Development Only Alternative	Reduced Commercial Development Alternative
<b>Biological Resources</b>	<p>One sensitive wildlife species was observed at the project site during the August 2019 field survey, the Cooper's hawk (<i>Accipiter cooperii</i>), a CDFW Watch List species when nesting. Additionally, there is foraging and nesting potential on-site for other avian species, including sensitive species such as the white-tailed kite (<i>Elanus leucurus</i>), which is California Fully Protected. The eucalyptus trees and other ornamental trees provide habitat for nesting, and the open space areas provide habitat for foraging. Construction of the project could disturb raptor or songbird nests on the project site, and such an impact would be considered potentially significant.</p> <p>Under the No Project Alternative, the project site would remain partially undeveloped, and existing biological resources on the project site would remain undisturbed since no construction would occur.</p> <p>Therefore, the No Project/No Development Alternative would not have a substantial adverse effect on biological resources, and the No Project Alternative would result in less impacts related to biological resources compared to the project.</p>	<p>Development of the proposed project or the Existing General Plan Alternative could disturb raptor or songbird nests on the project site, and such an impact would be considered potentially significant. Upon implementation of mitigation, impacts would be similar to the proposed project and less than significant.</p>	<p>Development of the proposed project or the Residential Development Only Alternative could disturb raptor or songbird nests on the project site, and such an impact would be considered potentially significant. Upon implementation of mitigation, impacts would be similar to the proposed project and less than significant.</p>	<p>Development of the proposed project or the Reduced Commercial Development Alternative could disturb raptor or songbird nests on the project site, and such an impact would be considered potentially significant. Upon implementation of mitigation, impacts would be similar to the proposed project and less than significant.</p>
	LT	S	S	S
<b>Cultural Resources</b>	<p>Since no development would occur on-site, no grading or excavation activities would occur. There would be no potential to impact previously unknown cultural resources, including historical, archaeological, and paleontological resources. Cultural resource impacts, therefore, would be less than for the proposed project.</p>	<p>Development under the Existing General Plan Alternative would require the construction of the commercial and office buildings, parking, and associated site improvements across the project site. Therefore, potential impacts to cultural resources during excavation and grading activities, including to previously undiscovered archaeological resources, would be similar to the proposed project and less than significant with mitigation.</p>	<p>Given that this alternative would result in disturbing most of the project site, the potential to discover previously undiscovered cultural resources (i.e., archaeological resources) during excavation and grading activities would be similar to the proposed project. As with the proposed project, implementation of the required mitigation would ensure impacts are less than significant.</p>	<p>Since the residential uses under this alternative would be distributed across the entire project site (exclusive of the minimal commercial use), land disturbance would be similar to the proposed project. The potential to discover previously undiscovered cultural resources (i.e., archaeological resources) during excavation and grading activities would be similar to the proposed project. As with the proposed project, implementation of the required mitigation would ensure impacts are less than significant.</p>
	LT	S	S	S
<b>Energy</b>	<p>Since no new development would occur under this alternative, it would not generate any construction energy consumption. Furthermore, operational energy consumption from the County maintenance yard and library are less than consumption associated with the proposed project. Nevertheless, energy impacts for both this alternative and the proposed project would be less than significant.</p>	<p>Construction and operation of the Existing General Plan Alternative would still require construction of buildings, parking, and associated infrastructure improvements that would require energy consumption during construction and operation. However, this alternative would require less energy for construction and operation compared to the proposed project due to the reduced overall size and would not use energy in a wasteful or inefficient manner. Potential impacts related to energy use would be similar and less than significant.</p>	<p>Construction of the residential development only alternative would still require construction of buildings, parking, and associated infrastructure improvements across the project site that would require energy during construction and operation. However, this alternative would require less energy for construction and operation compared to the proposed project due to the reduced size and would not use energy in a wasteful or inefficient manner. Potential impacts related to energy use would remain less than significant.</p>	<p>Construction of reduced commercial alternative would still require construction of buildings, parking, and associated infrastructure improvements that would require energy during construction and operation. However, this alternative would result in less energy consumption for construction and operation compared to the proposed project due to the reduced project size and would not use energy in a wasteful or inefficient manner. Potential impacts related to energy use would remain less than significant.</p>
	LT	LT	LT	LT
<b>Geology and Soils</b>	<p>No new construction activities, including demolition and grading, would occur under the No Project Alternative. This alternative would not involve any grading or excavation that could cause unstable subsurface geologic conditions or erosion impacts. The No Project alternative would not introduce new residents or employees to the project site that could be exposed to seismic ground shaking or other geologic hazards. Overall, therefore, geologic and soils impacts would be reduced relative to the proposed project.</p> <p>Furthermore, under this alternative there is no potential to encounter paleontological resources during grading activities. Since no earthmoving activities would occur, there would be no potential to damage paleontological resources, and impacts would be reduced compared to the proposed project.</p>	<p>Under the Existing General Plan Alternative, impacts related to site-specific geologic hazards, including seismic ground shaking, soil erosion, landslides, liquefaction, soil stability, and paleontological resources would be similar to those under the proposed project because such impacts are a function of the project site's underlying geologic conditions rather than the type or amount of land use proposed. This alternative would comply with the same regulatory requirements as the project to ensure that the soils underlying the project site can adequately support the proposed development. As with the proposed project, the General Plan Alternative would be designed to conform to the current seismic design provisions of the California Building Code and would require final design-level geotechnical report subject to City review and approval. Impacts related to</p>	<p>Under this alternative, impacts related to site-specific geologic hazards, including seismic ground shaking, soil erosion, landslides, liquefaction, soil stability, and paleontological resources would be similar to those under the proposed project because such impacts are a function of the project site's underlying geologic conditions. This alternative would comply with the same regulatory requirements as the project to ensure that the soils underlying the project site can adequately support the proposed development. As with the proposed project, the Residential Development Only Alternative would be designed to conform to the current seismic design provisions of the California Building Code and would require final design-level geotechnical report subject to City review</p>	<p>Under the Reduced Commercial Alternative, impacts related to site-specific geologic hazards, including seismic ground shaking, soil erosion, landslides, liquefaction, soil stability, and paleontological resources would be similar to those under the proposed project because such impacts are a function of the project site's underlying geologic conditions. This alternative would comply with the same regulatory requirements as the project to ensure that the soils underlying the project site can adequately support the proposed development. As with the proposed project, the Reduced Commercial Alternative would be designed to conform to the current seismic design provisions of the California Building Code and would require final design-level geotechnical report</p>

7. Alternatives to the Proposed Project

Table 7-2 Environmental Impact Comparison

Impact	No Project/No Development	No Project: Development Under Existing General Plan Land Use Designation Alternative	Residential Development Only Alternative	Reduced Commercial Development Alternative
		geology and soils would be less than significant and similar to those of the project.  The General Plan Alternative would not construct subterranean parking levels compared to the proposed project, but still would entail substantial remedial grading. Therefore, the potential for this alternative to uncover subsurface paleontological resources would be less when compared to that of the project. However, because this alternative would require excavation, mitigation measures would also be required. Like the proposed project, impacts would be less than significant with mitigation.	and approval. Impacts related to geology and soils would be less than significant and similar to those of the project.  This alternative would not construct subterranean parking levels compared to the proposed project, but still would be anticipated to require substantial remedial grading. Therefore, the potential for this alternative to uncover subsurface paleontological resources would be slightly less when compared to that of the project. However, because this alternative would require excavation, mitigation measures would also be required. Like the proposed project, impacts would be less than significant with mitigation.	subject to City review and approval. Impacts related to geology and soils would be less than significant and similar to those of the project.  This alternative would require less overall grading and excavation; therefore, the potential for this alternative to uncover subsurface paleontological resources would be slightly less than that of the proposed project. Like the proposed project, impacts would be less than significant with mitigation.
	LT	LT	LT	LT
<b>Greenhouse Gas Emissions</b>	The proposed project is estimated to generate approximately 11,651 metric tons of CO <sub>2</sub> -equivalent (MTCO <sub>2e</sub> ) emissions per year. This alternative would substantially reduce GHG emissions compared to the proposed project, because no construction would occur, and this alternative would not result in an increase in operational emissions. The significant and unavoidable GHG impact of the project would be eliminated under this alternative.	Construction of the Existing General Plan Alternative would eliminate the residential units but would result in substantially greater commercial/office area than the proposed project. As a result, it would generate more vehicle trips and vehicle miles traveled. As with the proposed project, this alternative would exceed 3,000 MTCO <sub>2e</sub> per year and would result in significant operational GHG emissions impacts. Short-term GHG emissions from the construction phase of this alternative would be expected to be similar to the proposed project. Overall GHG emissions impacts would be similarly reduced under this alternative; however, significant greenhouse gas emissions impacts would remain significant and unavoidable.	The Residential Development Only Alternative would increase residential units but would generate substantially fewer vehicle trips and VMT by eliminating the nonresidential component. Operation of the proposed project's nonresidential component generates a substantial amount of vehicle trips and VMT. Eliminating the nonresidential component would also reduce energy use (indirectly from purchased electricity use and directly through fuel consumed for building heating), area sources (e.g., equipment used on-site, consumer products, coatings), water/wastewater generation, and waste disposal. Short-term GHG emissions from the construction phase of the project would likely be similar to the proposed project since essentially the entire site would be graded. GHG emissions impacts would be reduced under this alternative and would eliminate significant greenhouse gas emissions impacts.	The Reduced Commercial Alternative would result in an approximate 85 percent reduction in the commercial area compared to the proposed project and would also eliminate office space. This alternative would, therefore, generate fewer daily vehicle trips and VMT. The reduction in nonresidential building area would reduce GHG emissions from operational traffic to a level below 3,000 MTCO <sub>2e</sub> per year. By reducing the commercial development by 136,811 square feet, this alternative would also reduce energy use (indirectly from purchased electricity use and directly through fuel consumed for building heating), area sources (e.g., equipment used onsite, consumer products, coatings), water/wastewater generation, and waste disposal. Overall, GHG impacts would be reduced under this alternative and would eliminate significant greenhouse gas emissions impacts.
	LT (eliminates a significant and unavoidable impact)	S (the operational GHG impact would remain significant)	LT (eliminates a significant and unavoidable impact)	LT (eliminates a significant and unavoidable impact)
<b>Hazards and Hazardous Materials</b>	No demolition or grading would occur under the No Project alternative. Potential hazards from the accidental release of hazardous materials due to exposure to impacted soils and hazardous building materials would not occur, but hazardous materials also would not be removed and properly disposed. Therefore, impacts from hazards and hazardous materials would be reduced under this alternative, and the mitigation measures required for the proposed project would be eliminated.	Development under the Existing General Plan Alternative would require demolition and grading. Potential hazards would occur from the accidental release of hazardous materials due to potential exposure to impacted soils and hazardous building materials. Therefore, impacts from hazards and hazardous materials would be less than significant with mitigation similar to the proposed project. As with the proposed project, the transport, use, and storage of hazardous materials would be mitigated by comprehensive regulations.  The overall hazards impacts associated with this alternative would be less than significant with mitigation, and therefore, similar to the proposed project.	Development under the Residential Development Only Alternative would require demolition and grading. Potential hazards would occur from the accidental release of hazardous materials due to potential exposure to impacted soils and hazardous building materials. Therefore, impacts from hazards and hazardous materials would be less than significant with mitigation, similar to the proposed project. As with the proposed project, the transport, use, and storage of hazardous materials would be mitigated by comprehensive regulations.  The overall hazards impacts associated with this alternative would be less than significant with mitigation, and therefore, similar to the proposed project.	Development under the Reduced Commercial Development Alternative would require demolition and grading. Potential hazards would occur from the accidental release of hazardous materials due to potential exposure to impacted soils and hazardous building materials. Therefore, impacts from hazards and hazardous materials would be less than significant with mitigation, similar to the proposed project. As with the proposed project, the transport, use, and storage of hazardous materials would be mitigated by comprehensive regulations.  The overall hazards impacts associated with this alternative would be less than significant with mitigation, and therefore, similar to the proposed project.
	LT	S	S	S
<b>Hydrology and Water Quality</b>	Under the No Project/No Development Alternative, no grading, excavation, or development of new structures would occur. Therefore, no changes to the hydrology of the project site or the potential for polluted runoff or siltation would occur. No construction-related impacts to hydrology and water quality would occur under the No Project/No Development Alternative.	Similar to the proposed project, construction and operation of this alternative could generate pollutants that impact water quality. However, similar to the proposed project, a Construction General Permit, stormwater pollution prevention plan (SWPPP), and water quality management plan (WQMP) would be required. Implementation of BMPs in the SWPPP would ensure water quality impacts are minimized to less than significant levels. Construction and operations of this alternative	Similar to the proposed project, construction and operation of this alternative could generate pollutants that impact water quality. However, similar to the proposed project, a Construction General Permit, SWPPP, and WQMP would be required. Implementation of BMPs in the SWPPP would ensure water quality impacts are minimized to less than significant levels. This alternative could result in more open space and greater pervious surface areas. Construction and operation of this alternative	Similar to the proposed project, construction and operation of this alternative could generate pollutants that impact water quality. However, similar to the proposed project, a Construction General Permit, SWPPP, and WQMP would be required. Implementation of BMPs in the SWPPP would ensure water quality impacts are minimized to less than significant levels. This alternative could result in more open space and greater pervious surface areas than the proposed project. Construction and

## 7. Alternatives to the Proposed Project

**Table 7-2 Environmental Impact Comparison**

Impact	No Project/No Development	No Project: Development Under Existing General Plan Land Use Designation Alternative	Residential Development Only Alternative	Reduced Commercial Development Alternative
	Under existing conditions, the majority of the project site drains via sheet flow, which is collected and then discharged into the City's storm drain system. Development as proposed would be subject to comprehensive regulatory water quality measures (best management practices) and hydromodification requirements to ensure that drainage patterns reflect predevelopment patterns to the maximum extent. Runoff would be more controlled and water quality protected. Hydrology impacts under the No Project/No Development Alternative and for the proposed project would be less than significant. Compliance with comprehensive regulatory requirements for development ensures that impacts of the proposed project would be reduced in comparison to existing conditions. Thus, impacts would be greater if the site remained as is under the No Project/No Development Alternative.	could substantially increase the rate or amount of surface runoff. Implementation of source control, site design, and treatment control BMPs in the project's WQMP and final hydrology report would also reduce stormwater runoff volumes and overall impacts to water quality. Adherence to existing regulations, implementation of required BMPs, and design specifications in the final hydrology report would ensure impacts to hydrology and water quality are less than significant. Overall, impacts would be similar under both scenarios.	could substantially increase the rate or amount of surface runoff compared to existing conditions. Implementation of source control, site design, and treatment control BMPs in the project's WQMP and final hydrology report would also reduce stormwater runoff volumes and overall impacts to water quality. Adherence to existing regulations, implementation of required BMPs, and design specifications in the final hydrology report would ensure impacts to hydrology and water quality are less than significant. Overall, impacts related to hydrology and water quality would be similar to the proposed project.	operation of this alternative could substantially increase the rate or amount of surface runoff. Implementation of source control, site design, and treatment control BMPs in the project's WQMP and final hydrology report would also reduce stormwater runoff volumes and overall impacts to water quality. Adherence to existing regulations, implementation of required BMPs, and design specifications in the final hydrology report would ensure impacts to hydrology and water quality are less than significant. Overall, impacts related to hydrology and water quality would be similar to the proposed project.
	<b>GT</b>	<b>S</b>	<b>S</b>	<b>S</b>
<b>Land Use and Planning</b>	Under this alternative, no new development would occur. The existing uses on-site are compatible with the existing land uses in the vicinity of the project site. Compared to the proposed project and would not require either a general plan amendment (GPA) or zone change (ZC). The site, however, would remain mostly undeveloped with vacant buildings, and be underutilized. This alternative would not achieve the General Plan's vision for the project site. As with the proposed project, this alternative would not physically divide an established community. Impacts would be greater in comparison to the proposed project.	This project alternative would be consistent with the Laguna Niguel General Plan and Laguna Niguel Zoning Code; therefore, this alternative would not require a GPA or ZC. In comparison, the proposed project would require a GPA to expand the existing land use designations to allow multifamily residential development (275 units). Therefore, land use and planning impacts of this alternative would be reduced and, as with the proposed project, would be less than significant.	Compared to the proposed project, this alternative would also require a GPA and ZC to allow the residential multifamily units. As with the proposed project, this alternative would not physically divide an established community. In comparison to the proposed project, this alternative would not be as effective in achieving the General Plan's objective for this site to include commercial/office space and would not achieve many of the General Plan's policies. Impacts would be greater than the proposed project.	This alternative would require a GPA and ZC to allow the residential multifamily units. The remaining proposed nonresidential development would already be allowed under the existing "Community Commercial," "Professional Office," and "Public/Institutional" land use designations and CC zoning. The substantially reduced commercial area, however, would not meet the General Plan's vision for larger scale non-residential development and would not be consistent with several General Plan policies relative to developing a well-balanced community. Therefore, land use and planning impacts of this alternative would be greater than the proposed project and less than significant.
	<b>GT</b>	<b>LT</b>	<b>GT</b>	<b>GT</b>
<b>Noise</b>	Under this alternative, no grading, excavation or construction would occur; therefore, no construction-related noise or vibration would be generated on-site or off-site. The No Project/No Development would not develop new uses on the project site, and no changes to existing site operation would occur. There would be no new vehicle trips generated under this alternative. No impacts associated with construction noise or with on- or off-site operational noise would occur under this alternative, and impacts would be less than significant with mitigation noise impact to operational noise and vibration.	Development under this alternative would require construction and associated site improvements. As with the proposed project, it is anticipated that construction noise impacts would be less than significant. Grading quantities would be similar to the proposed project, and overall building massing and related construction would be similar. Therefore, construction noise associated with this alternative would be similar to the proposed project and less than significant. Operational noise impacts would be reduced compared to the proposed project. Operations of the uses under the existing general plan and zoning designations would not include special events held on the project site and would not include multipurpose plazas. Thus, operational noise impacts would be reduced and, as with the proposed project, less than significant.	Development under this alternative would require construction across the project site and associated site improvements. As with the proposed project, construction noise impact would be less than significant. Operational noise impacts would be reduced compared to the proposed project. This alternative would not include multipurpose community plazas that support special events that may generate louder noises. Thus, operational noise impacts of this alternative would be reduced and, as with the proposed project, be less than significant.	Development under this alternative would require construction across the project site and associated site improvements. Construction noise impact would be less than significant. Operational noise impacts would be reduced compared to the proposed project because it would substantially reduce nonresidential development, resulting in fewer visitors and events and less traffic noise. Thus, operational noise impacts of this alternative would be reduced and, as with the proposed project, less than significant.
	<b>LT</b>	<b>LT</b>	<b>LT</b>	<b>LT</b>
<b>Population and Housing</b>	Under this alternative, no new housing units and commercial uses would be developed, and no additional residents or employees would be introduced to the City. This alternative would not induce population growth and would not displace existing housing. In comparison, the proposed project would introduce 275 new residential units and an estimated population of 704 new residents. These projections, along with other related projects under development in the City, are within the SCAG projections for the City. However, population and housing impacts would be reduced under this alternative and would be less than significant, as they are for the project.	This alternative would not introduce any dwelling units or associated residents. Thus, there would be no increase in population or housing on-site. This alternative would introduce approximately 983 jobs. In comparison, the proposed project would provide approximately 412 jobs and 275 residential units. This alternative would not introduce any new residents and would generate more employment opportunities than the proposed project. This alternative would beneficially affect the City's jobs-housing balance. Impacts to population and housing would be less than for the proposed project under this alternative.	This alternative would develop 400 residential units and would generate approximately 1,024 residents. Eliminating the project's nonresidential development would substantially reduce employment opportunities. The city is considered "housing rich," and this alternative would not beneficially affect the city's jobs-housing balance. Impacts to population and housing would be greater than the proposed project under this alternative, but would remain less than significant.	Similar to the proposed project, this alternative would develop up to 275 residential units but would reduce the nonresidential development by 136,811 square feet. Impacts to population and housing would be similar. Decreasing nonresidential development by 136,811 square feet would reduce employment opportunities from 412 employees to 62 employees. This alternative would not improve the City's "housing-rich" status. Overall, impacts would be greater than the proposed project but would remain less than significant.

7. Alternatives to the Proposed Project

Table 7-2 Environmental Impact Comparison

Impact	No Project/No Development	No Project: Development Under Existing General Plan Land Use Designation Alternative	Residential Development Only Alternative	Reduced Commercial Development Alternative
	LT	LT	GT	GT
<b>Public Services</b>	With no new development on-site, there would be no increase in demand for public services, including police, sheriff, school, and library services. Accordingly, because the No Project/No Development Alternative would not result in a population gain that would increase demand, it would have no impact related to public services. Impacts related to public services, including sheriff, fire, school, and library, would be less under the No Project/No Development Alternative than the project.	No residences would be developed on-site under this alternative. Therefore, there would not be an increased demand for school and library services. The demand for additional police services would not be substantial. Demand for fire services would also be less under this alternative since the commercial and office buildings would not generate as much demand as the proposed project's 275 residential units and nonresidential development. Impacts on public services would be reduced and, as with the proposed project, less than significant.	Under this alternative, demand on public services, including fire, police, school, and library services, would be approximately 45 percent greater than the proposed project for the residential development component. Eliminating the nonresidential square footage would reduce demand on fire and police services compared to the proposed project. Overall, impacts would be slightly reduced and, as with the proposed project, less than significant.	Under this alternative, demand on public services, including fire, police, school, and library services, would be similar to the proposed project for the residential development component. Reducing the nonresidential square footage would reduce demand on fire and police services compared to the proposed project. Overall, impacts would be reduced and, as with the proposed project, less than significant.
	LT	LT	LT	LT
<b>Recreation</b>	The No Project/No Development Alternative would not change the current occupancy and use of the project site; therefore, it would not increase demand for parks and recreation services and would have no impact on parks and recreation facilities. Impacts related to parks and recreational facilities would be less under this alternative than the proposed project.	No residences would be developed on-site under this alternative. Though it is possible that new employees at the project site could use the library and local parks, they would not be expected to create a substantial increase in demand for recreation services. Impacts on recreational facilities would be reduced and, as with the proposed project, less than significant.	This alternative proposes 125 more multifamily residential units than the proposed project. Thus, this alternative would introduce approximately 1,024 residents to the project area and increase demand for parks and recreational facilities. This alternative would be required to adhere to the local park code and the common open area requirements. Overall, impacts would be greater than with the proposed project but would remain less than significant.	This alternative proposes the same number of multifamily residential units as the proposed project. Thus, this alternative and the proposed project would introduce approximately 704 residents to the project area and increase demand for parks and recreational facilities. This alternative would be required to adhere to the local park code and the common open area requirements. Overall, impacts would be similar to the proposed project and would be less than significant.
	LT	LT	GT	S
<b>Transportation</b>	The No Project/No Build Alternative would not result in new development, and therefore would not conflict with any programs, plans, ordinances or policies addressing the circulation system, transit, roadways, bicycle, and pedestrian facilities. This alternative would not result in any increase in the intensity of on-site development and thus would not result in additional VMT over existing conditions. No new sidewalks, driveways, or roadway improvements in and around the project site would be designed, so no design hazards impacts or emergency access impacts would occur. Overall, the No Project/No Development Alternative would not result in transportation impacts. Impacts related to transportation would be less under the No Project/No Build Alternative than the proposed project.	Similar to the proposed project, this alternative would require site access improvements along Pacific Island Drive and Crown Valley Parkway at the project driveways. This development alternative would not conflict with any congestion management programs or alternative transportation plans. This alternative would generate more vehicle trips than the proposed project, and also would not have the benefit of mixed-use to reduce/eliminate some trips (e.g., residents patronizing or being employed by onsite uses). VMT per employment, therefore, would be similar or greater for this alternative in comparison to the proposed project. Impacts on transportation would potentially be greater than with the proposed project. This alternative may result in a new significant impact.	This alternative would require site access improvements along Pacific Island Drive and Crown Valley Parkway at the project driveways. This alternative would not conflict with any programs, plans, ordinances, or policies addressing the circulation system, transit, roadways, bicycle, and pedestrian facilities. Although the elimination of commercial and office uses would reduce total VMT relative to the proposed project, it may increase VMT/capita. The employment component of the project would be eliminated. New sidewalks, driveways, and roadway improvements in and around the project site would be designed according to State and local code requirements, and therefore no design hazards impacts or emergency access impacts would occur. Impacts on transportation may be greater than the proposed project, but would be anticipated to be less than significant.	This alternative would decrease nonresidential development by 136,811 square feet compared to the proposed project. This alternative would reduce vehicle trips and result in lower VMT for employment than the proposed project due to the reduced commercial development. The substantially reduced commercial use would provide local, daily use retail and result in a significant reduction in trips. New sidewalks, driveways, and roadway improvements in and around the project site would be designed according to State and local code requirements, and therefore no design hazards impacts or emergency access impacts would occur. Overall, transportation impacts would be similar or less and, as with the proposed project, less than significant.
	LT	GT (possibly result in new significant impact)	GT	S
<b>Tribal Cultural Resources</b>	Since no development would occur on-site, no grading or excavation activities would occur. There would be no potential to impact previously unknown tribal cultural resources, including historical, archaeological, and paleontological resources. Tribal cultural resource impacts, therefore, would be reduced in comparison to the proposed project.	Development under the existing general plan alternative would require the construction of the commercial and office buildings, parking, and associated site improvements across the project site. Therefore, potential impacts to tribal cultural resources during excavation and grading activities, including to previously undiscovered tribal cultural resources, would be similar to the proposed project and less than significant with mitigation.	Since as with the proposed project, this alternative would require grading the majority of the project site, the potential to discover previously undiscovered tribal cultural resources during excavation and grading activities would be similar. As with the proposed project, implementation of the required mitigation would ensure impacts are less than significant.	Since the residential product under this alternative would be garden style apartments distributed throughout the site, the disturbance footprint for this alternative would be similar footprint than the proposed project. The potential to discover previously undiscovered tribal cultural resources during excavation and grading activities would be similar. As with the proposed project, implementation of the required mitigation would ensure impacts are less than significant.
	LT	S	S	S

7. Alternatives to the Proposed Project

Table 7-2 Environmental Impact Comparison

Impact	No Project/No Development	No Project: Development Under Existing General Plan Land Use Designation Alternative	Residential Development Only Alternative	Reduced Commercial Development Alternative
<b>Utilities and Service Systems</b>	The No Project/No Development Alternative would not construct new buildings or add population to the project site; therefore, water demand, wastewater generation, and generation of solid waste would not change compared to existing conditions on the project site. Accordingly, because no new demand would occur under the No Project/No Development Alternative, it would have no impact on utilities and service systems. Thus, impacts with regard to utilities and service systems would be less than the proposed project.	This alternative would reduce water demand, wastewater generation, and solid waste generation compared to the proposed project. Using a water demand rate of 65 gallons per day (gpd) per 1,000 square feet, the office buildings (217,800 square feet) would require approximately 14,157 gpd of water. Using a water demand rate of 90 gpd per 1,000 square feet, the commercial buildings (130,680 square feet) would require approximately 11,761 gpd of water. Using a wastewater generation rate of 61.8 gpd per 1,000 square feet, the office buildings would generate approximately 13,460 gpd of wastewater. Using a wastewater generation rate of 85.5 gpd per 1,000 square feet, the commercial buildings would generate approximately 11,173 gpd of wastewater. And using a solid waste generation rate of 0.08 pounds per square foot, the office buildings would generate about 17,424 pounds per day (ppd) of solid waste. Using a solid waste generation rate of 0.03 pounds per square foot, the commercial buildings would generate about 3,920 ppd of solid waste. In comparison, the proposed project would require 114,804 gpd of water and would generate about 96,665 gpd of wastewater and 11,446 ppd of solid waste (see Section 5.17, <i>Utilities and Service Systems</i> ). The proposed project would generate more water demand and wastewater generation, as detailed in the project's water supply assessment (see Appendix N). Thus, impacts to utilities and service systems under the Existing General Plan Alternative would be reduced, and, as with the proposed project, impacts would be less than significant.	Using the same water, wastewater generation, and solid waste generation rates as the proposed project, the Residential Development Only Alternative would require approximately 72,000 gpd of water, generate 68,400 gpd of wastewater, and generate 4,892 ppd of solid waste. In comparison, the proposed project would require 114,804 gpd of water and would generate about 96,665 gpd of wastewater and 11,446 ppd of solid waste (see Section 5.17, <i>Utilities and Service Systems</i> ). The proposed project would generate more water demand and wastewater. Thus, impacts to utilities and service systems under this alternative would be reduced, and, as with the proposed project, impacts would be less than significant.	Using the same water demand, wastewater generation, and solid waste generation rates as the proposed project and as detailed in Section 5.17, <i>Utilities and Service Systems</i> , the Reduced Commercial Development Alternative would require approximately 51,600 gpd of water, generate 49,000 gpd of wastewater, and generate 4,100 ppd of solid waste. In comparison, the proposed project would require 114,804 gpd of water and would generate about 96,665 gpd of wastewater and 11,446 ppd of solid waste. Note that the 23,750 square feet of nonresidential use proposed under this alternative is assumed to be commercial. Reducing nonresidential development by 136,811 square feet would reduce overall water demand and wastewater and solid waste generation. Thus, impacts to utilities and service systems under the Reduced Commercial Development Alternative would be reduced. As with the proposed project, impacts would be less than significant.
	LT	LT	LT	LT
<b>Wildfire</b>	No development of a mixed-use project would occur under this alternative. There would be no increase to wildfire hazard risk in comparison to existing conditions but there also would be no decrease due to vegetation management or replacing older, existing buildings with new buildings that meet current Fire Code requirements. Therefore, wildfire impacts would be slightly increased under this alternative.	As with the proposed project, development under the Existing General Plan alternative would include development adjacent to a Local Responsibility Area (LRA) very high fire hazard severity zone (FHSZ). Design of this alternative would be required to comply with the CBC and CFC as adopted by the City of Laguna Niguel. Development of the alternative would not exacerbate wildfire risks. Similar to the proposed project, impacts would be less than significant.	As with the proposed project, development under the High-Density Residential Development Only alternative would include multifamily residential buildings adjacent to a LRA very high FHSZ. Design of this alternative would be required to comply with the CBC and CFC as adopted by the City of Laguna Niguel. Development of the alternative would not exacerbate wildfire risks. Similar to the proposed project, impacts would be less than significant.	As with the proposed project, the Reduced Commercial Development alternative would include a mixed-use development adjacent to a LRA very high FHSZ. Design of this alternative would be required to comply with the CBC and CFC as adopted by the City of Laguna Niguel. Development of the alternative would not exacerbate wildfire risks. Similar to the proposed project, impacts would be less than significant.
	GT	S	S	S



## 7. Alternatives to the Proposed Project

### 7.3.2 Environmental Impact Conclusion

Table 7-3 summarizes the environmental impacts of each alternative compared to the proposed project.

**Table 7-3 Summary of Proposed Project and Alternatives Impacts**

Topic	Proposed PLTS Project	No Project/No Development	No Project: Development Under Existing General Plan Land Use Designation.	Residential Development Only	Reduced Commercial Development
Aesthetics	LTS	-	=	-	-
Air Quality	LTS/M	-	+	-	-
Biological Resources	LTS/M	-	=	=	=
Cultural Resources	LTS/M	-	=	=	=
Energy	LTS	-	-	-	-
Geology and Soils	LTS/M	-	-	-	-
Greenhouse Gas Emissions	S/U	_*	=	_*	_*
Hazards and Hazardous Materials	LTS/M	-	=	=	=
Hydrology and Water Quality	LTS/M	+	=	=	=
Land Use and Planning	LTS	+	=	+	+
Noise	LLTS/M	-	-	-	-
Population and Housing	LTS	-	-	+	+
Public Services	LTS	-	-	-	-
Recreation	LTS	-	-	+	=
Transportation	LTS	-	+	+	=
Tribal Cultural Resources	LTS/M	-	=	=	=
Utilities and Service Systems	LTS	-	-	-	-
Wildfire	LTS	+	=	=	=

Notes: LTS = Less than Significant; LTS/M = Less than Significant with Mitigation Incorporated; S/U = Significant and Unavoidable

(-) The alternative would result in less of an impact than the proposed project.

(+) The alternative would result in greater impacts than the proposed project.

(=) The alternative would result in the same/similar impacts as the proposed project.

(\*) Significant and unavoidable impact is eliminated.

## 7. Alternatives to the Proposed Project

### 7.3.3 Ability to Achieve Project Objectives

The determination of whether an alternative achieves a particular objective is not black or white. Each alternative has the potential to achieve the objectives to some extent. Table 7-4 summarizes each alternative's ability to achieve the project objectives.

**Table 7-4 Ability of Each Alternative to Meet the Project Objectives**

Objective	No Project/No Development	No Project: Development Under Existing General Plan Land Use Designation	Residential Development Only	Reduced Commercial Development
1. Create a dynamic mix of commercial uses, including retail, restaurant, creative office, health/wellness, and civic uses, which will be unique and distinct from other commercial projects in the City and will be complemented by highly amenitized residential apartment buildings, culminating in a vibrant city center in the heart of Laguna Niguel	No	Partially. This alternative would not include residential uses.	No	No
2. Create a financially feasible project that promotes the City's economic well-being with (i) a commercial core that generates local tax revenue and provides new jobs; and (ii) a residential component that creates housing options for existing and new residents to support local businesses, including dining, shopping, office, and entertainment venues.	No	Partially. This alternative would not include residential uses.	Partially. This alternative would not include employment uses.	Partially. This alternative would not create as large a commercial core and would generate less local tax revenue and fewer jobs.
3. Replace the existing Laguna Niguel library with a larger, innovative, and architecturally significant library with modern programming and technologies to better serve the residents of Laguna Niguel for decades to come. The new library will be an integral part of the project and designed to facilitate connections to and integration with surrounding retail, office, and residential uses.	No	Yes	No	No
4. Incorporate a pedestrian-oriented town green gathering place for the community, connected by an integrated walkable network of passive and active pedestrian-oriented paseos and open spaces weaving through the retail and commercial core.	No	No	No	No

## 7. Alternatives to the Proposed Project

**Table 7-4 Ability of Each Alternative to Meet the Project Objectives**

Objective	No Project/No Development	No Project: Development Under Existing General Plan Land Use Designation	Residential Development Only	Reduced Commercial Development
5. Provide for investment in and redevelopment of underutilized property within the Town Center Opportunity Area by replacing the vacant South County Justice Center and undeveloped county land with a project that would generate new sources of property and sales tax revenue for the City and County.	No	Yes	Partial; no uses that would generate sales taxes are proposed under this alternative.	Yes
6. Create a visually impactful, architecturally distinct design and a retailing experience that will attract differentiated retail, restaurant, and commercial tenants to the City of Laguna Niguel and provide unique live, work, and play opportunities for residents of Laguna Niguel and surrounding communities.	No	No.	No	No
7. Improve and enhance the City's profile and amenities for residents by providing a unique mixed-use environment not seen elsewhere in South Orange County that will attract differentiated retail and commercial tenants and a unique, high-quality, pedestrian-oriented commercial center including a state-of-the-art library that the community can enjoy.	No	No	No	Partially. This alternative would not develop sufficient retail space to provide a "unique mixed-use environment with differentiated retail."

**No Project/No Development.** The No Project/No Development alternative would reduce impacts to all environmental issue areas except for hydrology/water quality, land use and planning, and wildfire. Hydrology/water quality, land use, and wildfire impacts would be greater than the proposed project.

This alternative would also eliminate significant and unavoidable impacts of the project related to greenhouse gas emissions (operation).

The No Project/No Development Alternative would not achieve any of the project objectives.

**No Project: Development Under Existing General Plan Land Use Designation.** The No Project: Development Under Existing General Plan Land Use and Zoning Designation alternative would reduce impacts to , energy, geology and soils, land use and planning, noise, population and housing, public services, recreation, and utilities and service systems. Impacts to aesthetics, biological resources, cultural resources, greenhouse gas

## 7. Alternatives to the Proposed Project

emissions, hazards and hazardous materials, hydrology and water quality, tribal cultural resources, and wildfire would be similar. Impacts to air quality, and transportation would be greater than the proposed project.

The alternative would provide a mix of office and commercial uses with new commercial tenants to the City of Laguna Niguel and redevelop the project site with a project that would generate new sources of sales tax (Objectives 1, 2, 5, 6, and 7).

This alternative would not provide a unique mixed-use environment (Objective 1) because residential uses would not be included. This alternative would not provide a pedestrian-oriented town green as the focal point of the commercial experience and gathering place for the community (Objective 4).

**Residential Development Only Alternative.** The Residential Development Only Alternative would reduce impacts related to aesthetics, air quality, energy, geology and soils, greenhouse gas emissions, hydrology and water quality, noise, public services, tribal cultural resources, and utilities and service systems. Impacts to biological resources, cultural resources, hazards and hazardous materials, and wildfire would be similar. Transportation. Land Use and Planning and Population impacts would be greater than the proposed project impacts.

The alternative would eliminate significant and unavoidable impacts to operational greenhouse gas emissions.

This alternative would include a residential-only development across the project site that would provide new housing options for existing and new residents, and promote the City's economic well-being by generating new sources of property tax (Objectives 2 and 5).

This alternative would not create a dynamic mix of commercial uses, including retail, restaurant, creative office, health/wellness, and civic uses, that would be unique and distinct from other commercial projects in the City (Objective 1). It would not provide unique live, work, and play opportunities for residents of Laguna Niguel and surrounding communities (Objective 6) or provide increased sales taxes (Objectives 2 and 5). Under this alternative the nonresidential component and town green would be eliminated, and therefore it would not enhance the City's profile and amenities for residents by providing a unique mixed-use environment in South Orange County that would attract differentiated retail and commercial tenants and a unique, high-quality, pedestrian-oriented commercial center (Objectives 4 and 7).

**Reduced Commercial Development Alternative.** The Reduced Commercial Development Alternative would reduce impacts to aesthetics, air quality, energy, geology and soils, greenhouse gas emissions, , noise, public services, tribal cultural resources, and utilities and service systems. Impacts to biological resources, cultural resources, hazards and hazardous materials, hydrology and water quality, recreation, transportation, and wildfire would be similar. Land use and planning and population and housing impacts would be greater.

This alternative would eliminate significant and unavoidable impacts to operational greenhouse gas emissions.

The substantial reduction in office and commercial space under this alternative would preclude this option from effectively achieving the project's objectives. To be potentially viable, this alternative would need to locate the 23,500 SF retail use as daily-needs retail and to conveniently locate this use along Crown Valley Parkway. A dynamic, commercial retail and office use could not be created (Objective 1); the uses would not support an

## 7. Alternatives to the Proposed Project

improved town green and the commercial uses would not attract people to a gathering place (Objective 4); and the limited non-residential use could not be designed as a visually impactful attraction for Laguna Niguel and surrounding residents (Objectives 6 and 7). This alternative would not be expected to be able to finance a new, state-of-the art library (Objectives 2 and 3). It would generate revenue to the City and County, but not at the levels anticipated for the proposed project (Objective 5).

### **7.4 ENVIRONMENTALLY SUPERIOR ALTERNATIVE**

CEQA requires a lead agency to identify the “environmentally superior alternative” and, in cases where the “No Project” alternative is environmentally superior to the proposed project, the environmentally superior development alternative must be identified. One alternative has been identified as “environmentally superior” to the proposed project:

#### Reduced Commercial Development Alternative

The Reduced Commercial Development Alternative would reduce impacts to impacts to aesthetics, air quality, energy, geology and soils, greenhouse gas emissions, noise, public services, and utilities and service systems in comparison to the proposed project. This alternative would also eliminate significant and unavoidable impacts to operational greenhouse gas emissions.

## 7. Alternatives to the Proposed Project

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## 8. Impacts Found Not to Be Significant

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California Public Resources Code Section 21003 (f) states:

...it is the policy of the state that...[a]ll persons and public agencies involved in the environmental review process be responsible for carrying out the process in the most efficient, expeditious manner in order to conserve the available financial, governmental, physical, and social resources with the objective that those resources may be better applied toward the mitigation of actual significant effects on the environment.

This policy is reflected in the State California Environmental Quality Act (CEQA) Guidelines (Guidelines) Section 15126.2(a), which states that

... [a]n EIR [environmental impact report] shall identify and focus on the significant environmental impacts of the proposed project...

and Section 15143, which states that

[t]he EIR shall focus on the significant effects on the environment.

Guidelines Section 15128 requires that an EIR contain a statement briefly indicating the reasons that various possible significant effects of a project were determined not to be significant and were therefore not discussed in detail in the Draft EIR.

This chapter includes an environmental analysis and finding of no impact or less than significant impact for the topics that were precluded from detailed discussion in Chapter 5, *Environmental Analysis*, of this DEIR.

As stated in the City's CEQA Manual, the City has not mapped Prime Farmland, Unique Farmland, or Farmland of Statewide importance within the City according to the mapping provided by the Department of Conservation. Furthermore, the City's General Plan does not designate any parcels within the City with an agricultural or forestry land use designation. Consequently, all projects in the City will not impact agriculture and forestry resources as these resources are currently defined by CEQA.

The entire City is mapped within Mineral Resource Zones (MRZ) MRZ-1 and MRZ-3 by the California Department of Conservation (California Department of Conservation 1995) as shown in Figure 5 of the City's CEQA Manual. MRZ-1 identifies areas where adequate information indicates that no significant mineral deposits are present or where it is judged that little likelihood exists for their presence. MRZ-3 identifies areas containing mineral deposits, the significance of which cannot be evaluated from available data. However, there are no areas in the City designated by the General Plan or Zoning Code for mineral resources or mineral resource activities.

## 8. Impacts Found Not to Be Significant

### 8.1 AGRICULTURE AND FORESTRY RESOURCES

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**Impact AG-1: The proposed project would not 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 nonagricultural use.**

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CEQA considers impacts to three categories of important farmland: Prime Farmland, Farmland of Statewide Importance, and Unique Farmland. According to the California Department of Conservation's Important Farmland Finder, there are no important farmlands in the project site (DOC 2016). There are also no existing agricultural uses on the project site. Therefore, the proposed project would have no impact on important farmlands nor convert any farmland to nonagricultural use.

*Level of Significance Before Mitigation:* No Impact.

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**Impact AG-2: The proposed project would not conflict with existing zoning for agricultural use, with a designated Agricultural Opportunity Area, or with a Williamson Act contract.**

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The California Department of Conservation Division of Land Resource Protection maintains updated maps showing lands bearing Williamson Act contracts. According to the State of California Williamson Act Contract Land map (dated 2016) there are no lands within all of Laguna Niguel under Williamson Act contracts (DOC 2016). Additionally, the project site is not zoned for agricultural use (Laguna Niguel 2012). Therefore, development in accordance with the proposed project and any zoning district changes proposed under the proposed project would not conflict with existing agricultural zoning or impact any Williamson Act lands.

*Level of Significance Before Mitigation:* No Impact.

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**Impact AG-3: The proposed project would not 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)).**

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See Impact AG-2. The current and proposed zoning for the project site does not include any zoning for forest land, timberland, or timberland production. There is no forest land on the project site.

*Level of Significance Before Mitigation:* No Impact.

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**Impact AG-4: The proposed project would not result in the loss of forest land or conversion of forest land to nonforest use.**

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See response to Section AG-3.

*Level of Significance Before Mitigation:* No Impact.



## 8. Impacts Found Not to Be Significant

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**Impact AG-5:** The proposed project would not involve other changes in the existing environment which, due to their location or nature, could result in conversion of farmland to nonagricultural use or conversion of forest land to nonforest use.

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See responses to Sections AG-1 through AG-3.

*Level of Significance Before Mitigation:* No Impact.

### 8.2 MINERAL RESOURCES

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**Impact M-1:** Project implementation would not 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.

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The project site is mapped as Mineral Resource Zone 1 by the California Geological Survey, indicating adequate information that no significant mineral deposits are present, or it is judged that little likelihood exists for their presence (CDMG 1994). The project site is not available as a mining site because it is already partially developed with the South County Justice Center building, library, and maintenance yard. Therefore, project development would not cause the loss of availability of mineral resources valuable to the region and the state.

*Level of Significance Before Mitigation:* No Impact.

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**Impact M-2:** Implementation of the proposed project would not 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.

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According to the Laguna Niguel General Plan, there are no mineral resources within the city. The City of San Juan Capistrano to the south and east contains some sand and gravel operations along Trabuco Creek (Laguna Niguel 1992). However, development in Laguna Niguel and the project site would not impact those operations. Thus, the project would not cause a loss of availability of mineral recovery sites.

*Level of Significance Before Mitigation:* No Impact.

### 8.3 REFERENCES

California Department of Conservation (DOC). 2016. California Important Farmland Finder.  
<https://maps.conservation.ca.gov/dlrp/ciff/>.

California Division of Mining and Geology (CDMG). 1994. Generalized Mineral Land Classification of Orange County, California, Aggregate Resources Only.  
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City of Laguna Niguel (Laguna Niguel). 1992, August 4. City of Laguna Niguel General Plan.  
<http://www.cityoflagunaniguel.org/index.aspx?NID=132>.

## 8. Impacts Found Not to Be Significant

———. 2012, February. City of Laguna Niguel Official Zoning Code Map.  
[https://www.cityoflagunaniguel.org/DocumentCenter/View/702/Zoning-Map?bidId=.](https://www.cityoflagunaniguel.org/DocumentCenter/View/702/Zoning-Map?bidId=)

## 9. Other CEQA Consideration

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Section 15126 of the California Environmental Quality Act (CEQA) Guidelines requires that all aspects of a project (including planning, acquisition, development, and operation) be considered when evaluating a project's impact on the environment. Section 15126 also sets forth general content requirements for environmental impact reports (EIRs). This section identifies (1) significant irreversible environmental changes that would result from implementing the proposed project; and (2) growth-inducing impacts of the proposed project.

### 9.1 SIGNIFICANT IRREVERSIBLE CHANGES DUE TO THE PROPOSED PROJECT

Section 15126.2(c) of the CEQA Guidelines requires that an environmental impact report (EIR) describe any significant irreversible environmental changes that would be caused by the proposed project should it be implemented.

Uses of nonrenewable resources during the initial and continued phases of the project may be irreversible since a large commitment of such resources makes removal or nonuse thereafter unlikely. Primary impacts and, particularly, secondary impacts (such as highways improvement which provides access to a previously inaccessible area) generally commit future generations to similar uses. Also, irreversible damage can result from environmental accidents associated with the project. Irretrievable commitments of resources should be evaluated to assure that such current consumption is justified.

In the case of the Laguna Niguel City Center Mixed Use project (proposed project), implementation would cause the following irreversible changes:

- Future development that would be accommodated by the proposed project would entail the commitment of nonrenewable and/or slowly renewable energy resources; human resources; and natural resources such as lumber and other forest products, sand and gravel, asphalt, steel, copper, lead, other metals, water, and fossil fuels. Future development would also require the use of natural gas and electricity, petroleum-based fuels, fossil fuels, and water. The commitment of resources required for the construction and operation of future development projects would limit the availability of such resources for future generations or for other uses during the life of the project. However, the project does not represent an uncommon construction project that uses an extraordinary amount of raw materials in comparison to other urban development projects of a similar scope and magnitude.
- An increased commitment of social services and public maintenance services (e.g., police, fire, schools, libraries, and sewer, water, and solid waste services) would also be required. The energy and social service commitments would be long-term obligations in view of the low likelihood of returning the land to its original condition once it has been developed.

## 9. Other CEQA Considerations

- Population growth related to project implementation would increase vehicle trips over the long term. Over the long term, emissions associated with such vehicle trips would continue to contribute to the South Coast Air Basin's nonattainment designation for fine inhalable particulate matter (PM<sub>2.5</sub>) under the California and National ambient air quality standards (AAQS) and nonattainment for coarse inhalable particulate matter (PM<sub>10</sub>) under the California AAQS.
- Future development in accordance with the proposed project is a long-term and likely irreversible commitment of lower intensity uses to a major commercial and residential town center in the City of Laguna Niguel. Also, the existing South County Court facility and county maintenance yard onsite are not likely to be rebuilt after demolition for the proposed project.

Given the low likelihood that the land would revert to lower intensity uses or to its current form, the proposed project would generally commit future generations to these environmental changes.

### 9.2 GROWTH-INDUCING IMPACTS OF THE PROPOSED PROJECT

Pursuant to Sections 15126(d) and 15126.2(d) of the CEQA Guidelines, this section is provided to examine ways in which the proposed project could foster economic or population growth, or the construction of additional housing, either directly or indirectly, in the surrounding environment. Also required is an assessment of other projects that would foster other activities which could affect the environment, individually or cumulatively. To address this issue, potential growth-inducing effects will be examined through analysis of the following questions:

- Would this project remove obstacles to growth, e.g., through the construction or extension of major infrastructure facilities that do not presently exist in the project area, or through changes in existing regulations pertaining to land development?
- Would this project result in the need to expand one or more public services to maintain desired levels of service?
- Would this project encourage or facilitate economic effects that could result in other activities that could significantly affect the environment?
- Would approval of this project involve some precedent-setting action that could encourage and facilitate other activities that could significantly affect the environment?

Please note that growth-inducing effects are not to be construed as necessarily beneficial, detrimental, or of little significance to the environment. This issue is presented to provide additional information on ways in which this project could contribute to significant changes in the environment, beyond the direct consequences of developing the land use concept examined in the preceding sections of this EIR.

## 9. Other CEQA Considerations

### **Would this project remove obstacles to growth, e.g., through the construction or extension of major infrastructure facilities that do not presently exist in the project area, or through changes in existing regulations pertaining to land development?**

The proposed General Plan Amendment and Zone Change required for this project would remove an obstacle to residential development on the project site. The proposed infrastructure improvements, including adjacent roadway circulation improvements and traffic signalization, would primarily accommodate the proposed project and not directly induce growth in the project area. Similarly, water and wastewater infrastructure would meet the needs of the proposed project but not increase overall service capacity for the area. The surrounding area is already developed in residential and commercial uses. Overall, the proposed project would not induce growth in the City of Laguna Niguel through either the extension of infrastructure facilities or land use regulations.

### **Construction/Extension of Major Infrastructure Facilities**

The project site is partially developed within an urban and built environment. Buildout of the proposed project would include infrastructure improvements and extensions, including internal roadways, storm drains, dry utilities (e.g., natural gas, electric, telephone, and cable), and water and wastewater connections. These improvements would connect to existing infrastructure facilities adjacent to the project site.

### **Changes in Existing Regulations**

The Laguna Niguel General Plan Land Use Element currently designates the project site “Community Commercial,” “Professional Office,” and “Public/Institutional.” The project site is currently zoned “Community Commercial” (CC) District in the Laguna Niguel Zoning Code. The proposed General Plan Amendment and Zone Change would accommodate mixed use development, including introducing residential uses to the project site. It would redefine the future nature of the project site, but not the surrounding area. The land use designation and zone changes would allow development up to 275 multifamily residential units on the property. The estimated population growth in the City due to project buildout would represent approximately 20 percent of the forecast housing growth of 1,400 units anticipated by 2045 for the City. Thus, the project would also be within SCAG’s projected housing growth. Although the proposed project would accommodate a sizeable percentage of the projected growth within the City, it would not induce growth beyond the project itself (see Section 5.12, *Population and Housing*).

### **Would this project result in the need to expand one or more public services to maintain desired levels of service?**

Public service agencies were consulted during preparation of this DEIR, including the Orange County Fire Authority (OCFA), Orange County Sheriff’s Department (OCS), Capistrano Unified School District (CUSD), and Orange County Public Library. As concluded in Section 5.13, *Public Services*, none of the service providers indicated that buildout of the proposed project would necessitate the immediate expansion of their service and facilities to maintain adequate and desired levels of service. Therefore, no future expansion of public services would be required to maintain existing levels of service.

## 9. Other CEQA Considerations

### **Would this project encourage or facilitate economic effects that could result in other activities that could significantly affect the environment?**

During project construction, several design, engineering, and construction-related jobs would be created. These jobs would be available throughout the project's construction time frame, anticipated to be approximately 36 months. This would be a direct but temporary growth-inducing impact of the proposed project. In addition, the project would generate approximately 412 jobs associated with the 159,581 square feet of nonresidential development. Impacts of the increases in job-generating land uses and employment pursuant to the proposed project are analyzed throughout Chapter 5, *Environmental Analysis*, of this DEIR.

The increased number of employees and residents because of the proposed project could spur new economic investment in other commercial uses serving the project site. For example, the introduction of 704 additional residents would represent an increased demand for economic goods and services and could, therefore, encourage the creation of new businesses and/or the expansion of existing businesses in the project area.

Overall, impacts of job-generating construction activities and commercial land uses pursuant to the proposed project would encourage and facilitate economic effects related to employment opportunities in the project area. However, these indirect growth-inducing effects would not significantly impact the environment.

### **Would approval of this project involve some precedent-setting action that could encourage and facilitate other activities that could significantly affect the environment?**

The proposed project would require the approval of discretionary actions; however, the project would not set a precedent for future projects with similar characteristics. The project would require the following City approvals and adoptions:

- **General Plan Amendment No. 19-01** to expand the existing land use designations to allow multifamily residential development. The subject property is located within Community Profile 14, Sub-profile Area C (Town Center Expansion) of the Laguna Niguel General Plan. The Land Use Element designates the majority of the property as "Community Commercial," "Professional Office," and "Public/Institutional," which allows a wide-range of non-residential uses, such as retail, restaurant, office, personal service, hotel and public/institutional. The portion of the project site that includes the library and OCFA Fire Station No. 5 are designated "Public/Institutional," which allows a wide range of public, quasi-public, and special-purpose private facilities that provide government or social services to the community. The Applicant is proposing a General Plan Amendment to modify the land use designation for the entire property (excluding OCFA Fire Station No. 5) to "Community Commercial," "Professional Office," "Public/Institutional," and "Residential Attached" (see Figure 3-5, *Existing and Proposed Land Use Designations*). To accommodate this development program, the General Plan Amendment also includes amending the statistical summary for Sub-profile Area C to account for the proposed project, including residential dwelling units and other modest narrative updates to reflect existing conditions, which have changed since the original adoption of the General Plan in 1992.
- **Zone Change No. 19-01.** The majority of the project site is zoned "Community Commercial" (CC) District, which allows for a variety of retail, restaurant, office, personal service, hotel, and other

## 9. Other CEQA Considerations

nonresidential uses. The portion of the project site that includes the library and OCFA Fire Station No. 5 are zoned “Public/Institutional” (PI) District, which allows a wide range of public, semi-public, and special-purpose private facilities to provide a variety of government and social services. The applicant is proposing a change in the property’s zoning designation (excluding the OCFA Fire Station No. 5) to “Mixed-Use Town Center” (MU-TC) District (see Figure 3-6, *Existing and Proposed Zoning Districts*). The MU-TC District allows for developments featuring a mix of land uses.

- **Zoning Code Amendment ZCA 19-01.** Accompanying Zone Change ZC 19-01, a zoning code amendment is proposed to establish the mix of permissible land uses and development standards for the new MU-TC district.
- **Vesting Tentative Tract Map VTTM 19024.** The Applicant is proposing a vesting tentative tract map to subdivide the property into a total of 21 lots, including 17 numbered lots and 4 lettered lots.
- **Site Development Permit SDP 19-03.** A site development permit is required for all projects that involve construction of any structure, except in certain limited circumstances. The project involves construction of multiple structures. The Applicant is therefore proposing a site development permit for the project. A site development permit is also proposed because the project includes over 5,000 cubic yards of earth work and to allow alternative development standards for a reduction in the minimum depth of boundary landscaping at the base of an ascending slope for a property line segment along proposed Lot 15.
- **Certification of the Environmental Impact Report and Adoption of Findings of Fact and a Mitigation Monitoring and Reporting Program.** An EIR is required by CEQA and the City must certify the EIR and adopt Findings of Fact and a Mitigation Monitoring and Reporting Program before approving the above-listed Project entitlements.

The approval of these actions changes the existing restrictions on growth set by the General Plan and Zoning Code. However, future projects would need to complete applicable environmental review, and discretionary approval would need to be given to individual projects following review by the Laguna Niguel City Council. The proposed project would not change the required procedure for project approvals and would not set a precedent that would make it more likely for other projects to gain approval of similar applications.

Moreover, no changes to any of the City’s building safety standards (i.e., building, grading, plumbing, mechanical, electrical, fire codes) are proposed or required to implement the proposed project. Therefore, the proposed project would not involve a precedent-setting action that would encourage and/or facilitate other activities that could significantly affect the environment.

## 9. Other CEQA Considerations

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# 10. Organizations and Persons Consulted

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## **City of Laguna Niguel (Lead Agency)**

John Morgan, Development Services Manager

Alison Giglio, Parks and Recreation Director

Peter K. Carlson, President, Carlson Strategic Land Solutions, (Consultant)

## **City of Laguna Niguel – Public Works**

Jacki Scott, PE, TE, Public Works Director/City Engineer

Kathy Nguyen, PE, TE, Engineering Services Manager

Paul Martin with Mark Thomas (Consulting Engineers)

Carrie Davis with Psomas (Consultant)

## **City of Laguna Niguel – Police Services**

Virgil Asuncion, Chief of Laguna Niguel Police Services

Isaac Flores, Administrative Sergeant

## **Laguna Niguel Town Center Partners LLC (Project Applicant)**

Chris Payne, Managing Director, (Sares-Regis Group)

Christian Santos, Development Director, (Sares-Regis Group)

Bryon Ward, President, (Burnham-Ward Properties)

## **Tribal Consultation**

Steven Quinn, Native American Heritage Commission

Arysa Gonzalez Romero, Historic Preservation Technician, Agua Caliente Band of Cahuilla Indians

Ralph Goff, Chairperson, Campo Band of Diegueño Mission Indians

Robert Pinto, Chairperson; Michael Garcia Vice Chairperson, Ewiiapaayp Tribe

## 11. Organizations and Persons Consulted

Lisa Cumper, Tribal Historic Preservation Officer; Erica Pino, Chairperson Jamul Indian Village

Sonia Johnston, Chairperson, Juaneño Band of Mission Indians

Joyce Stanfield Perry, Tribal Manager, Juaneño Band of Mission Indians Acjachemen Nation

Fred Nelson, Chairperson, La Jolla Band of Luiseño Indians

Javaughn Miller, Tribal Administrator, La Posta Band of Diegueño Mission Indians

Gwendolyn Parada, Chairperson, La Posta Band of Diegueño Mission Indians

Angela Elliott Santos, Chairperson, Manzanita Band of Kumeyaay Nation

Michael Linton, Chairperson, Mesa Grande Band of Diegueño Mission Indians

Shasta Gaughen, Tribal Historic Preservation Officer, Pala Band of Mission Indians

Temet Aguilar, Chairperson, Pauma Band of Luiseño Indians

Mark Macarro, Chairperson, Pechanga Band of Luiseño Indians

Jim McPherson, Tribal Historic Preservation Officer, Rincon Band of Luiseño Indians

Bo Mazzetti, Chairperson, Rincon Band of Luiseño Indians

San Luis Rey, Tribal Council, San Luis Rey Band of Mission Indians

Allen Lawson, Chairperson, San Pasqual Band of Diegueno Mission Indians

Scott Cozart, Chairperson, Soboba Band of Luiseno Indians

Cody Martinez, Chairperson, Sycuan Band of the Kumeyaay Nation

John Christman, Chairperson, Viejas Band of Kumeyaay Indians

### **Orange County Fire Authority**

Mike Contreras, Division Chief

Amy Smith, Administrative Assistant/Division 5

### **Orange County Public Library**

Julie Quillman, County Librarian

## 11. Organizations and Persons Consulted

### **Orange County Sheriff's Department (Laguna Niguel Police Department)**

Matthew McDaniel, Chief of Police Services, Laguna Niguel

### **Capistrano Unified School District**

Korin Lawing, Facilities Planning Technician

### **Moulton Niguel Water District**

Megan Emami, Development Services Specialist

### **OC Waste and Recycling**

John J. Arnau, CEQA and Habitat Program Manager

### **South Orange County Wastewater Authority**

Jim Burror, Director of Operations

## 11. Organizations and Persons Consulted

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# 11. Qualifications of Persons Preparing EIR

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## PLACEWORKS

**JoAnn Hadfield**

Principal, Environmental Services

- BS, Urban Planning, University of Utah
- Civil Engineering Coursework Completion, California State University, San Diego

**Nicole Vermilion**

Principal

- Master of Urban and Regional Planning, University of California, Irvine
- BA, Environmental Studies, and BS, Ecology and Evolutionary Biology, University of California, Santa Cruz

**Arabesque Said-Abdelwahed**

Senior Associate, Environmental Services

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Senior Associate, Noise, Vibration & Acoustics

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**Dina El Chammas Gass, PE**

Senior Engineer, Hydrology and Water Quality

- MS, Environmental and Water Resource Engineering, American University of Beirut, Lebanon
- BS, Civil Engineering, American University of Beirut, Lebanon

**Marianna Zimmermann**

Associate

- Master of Urban and Regional Planning, University of California, Los Angeles
- BS, Environmental Studies, University of California, Santa Barbara

**Alejandro Garcia, INCE-USA**

Associate, Noise, Vibration & Acoustics

- BS, Acoustics, Columbia College

## 12. Qualifications of Persons Preparing EIR

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- BS, Biological Sciences, University of California, Irvine

### **Renata Langis**

Project Planner, Community Planning, Design,  
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- BS, International Agricultural Development,  
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## **COGSTONE**

### **Molly Valasik, Registered Professional Archaeologist**

Principal Investigator

## **VCS ENVIRONMENTAL**

### **Carla Marriner**

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