CEQA INITIAL STUDY
PROPOSED MITIGATED NEGATIVE DECLARATION

Ranch Hills Community
PLANNING APPLICATION NO. PA180034
VESTING TENTATIVE TRACT MAP NO. TT18119
INITIAL STUDY NO. PA 180034

Prepared for:

Ranch Hill Partners, LP
2454 Alton Pkwy
Irvine, Calif. 92606

Prepared by:

County of Orange
OC Public Works, Development Services/Planning
601 North Ross Street
Santa Ana, CA 92701-4048

May 2020

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Appendix

Section 1: Introduction

This section conforms to and provides the content contained in the updated Appendix G: Environmental Checklist of the State California Environmental Quality Act (CEQA) Guidelines approved on January 10, 2019, and effective January 1, 2019 and the County of Orange Local CEQA Procedures Manual.

1.1 Project Title

Ranch Hills Community
Planning Application PA180034
Vesting Tentative Tract Map No. VTTM 18119

1.2 Lead Agency Name and Address

County of Orange
OC Public Works
Development Services/Planning
601 North Ross Street
Santa Ana, California 92701-4048

1.3 Contact Person and Telephone Number

Contact: Kevin Canning
Telephone: (714) 667-8847
E-Mail: kevin.canning@ocpw.ocgov.com

1.4 Project Location

The Project site is located at 11782 Simon Ranch Road, in the North Tustin area of unincorporated Orange County, California. The U.S. Census Bureau defines a Census Designated Place (CDP) for North Tustin. CDPs represent a concentration of population for the purposes of gathering and correlating statistical data. In 2005, the U.S. Census Bureau changed the name of the CDP to Tustin Foothills. The North Tustin area includes the communities of Cowan Heights, East Tustin, Lemon Heights, Panorama Heights, and Red Hill.

The site is located on the east side of the intersection of Pavillion Drive and Simon Ranch Road, just north of the City of Tustin in an unincorporated County island. The North Tustin community is located in central Orange County and is surrounded by the City of Tustin to the south, unincorporated County area to the east, City of Orange to the north, and City of Santa Ana to the west. Regional access to the site is provided via Interstate 5 (I-5) and State Route 261 (SR-261) toll road. The I-5 freeway is located approximately two and one-half miles south of the Project site, and SR-261 slightly less than one mile to the east of the site. Local access is provided by Tustin Ranch Road, Irvine Boulevard, Red Hill Avenue, and Browning Avenue. The Project site is identified as Assessor's Parcel Number 104-321-01. The regional and local vicinity of the Project site are depicted on Figure 1.

1.5 Project Sponsor Name and Address

Ranch Hills Partners, L.P.
2454 Alton Pkwy
Irvine, CA 92606

1.6 General Plan Designations

The Project site has a General Plan land use designation of Suburban Residential (1B) Communities allowing a density of 0.5 to 18 dwelling units per acre (du/ac). See Figure 2.

1.7 Zoning Districts

The Project site is currently zoned as A1 "General Agricultural" District. The Project is proposing a Zone Change to revise the zoning designation from A1 to R2 (5000) District with a minimum of 5,000 square feet of net land area required for each unit. See Figure 3a. Political boundaries of Orange County are shown on Figure 3b.

1.8 Project Description

The Project proposes a Zone Change, Use Permit, and Vesting Tentative Tract Map to allow the replacement of the existing private recreational club that was established in 1958 with the development of 17 buildings, consisting of 34 single-family townhome units and 3 single-family detached units for a total of 37 units. The Project will be formally mapped for condominium purposes. Refer to Section 2 for a comprehensive discussion of the proposed Project.

1.9 Environmental Setting

Project Site Setting

The Tustin Hills Racquet Club currently occupies the approximate 5.88-acre Project site. The existing access point to the Project site is located at the intersection of Pavillion Drive and Simon Ranch Road and would be the sole point of entry to the Project site. The site is currently developed with, 11 full-sized and one half-sized (practice) tennis courts, a swimming pool with two small spas, a lawn/outdoor event area, and two single-story buildings with banquet and meeting rooms accommodating 330 individuals and administrative offices, for a total of approximately 10,000 square feet. The facility is served by a paved parking area that can accommodate approximately 127 cars.

Aerial photographs of the existing Project site and the proposed Project and the surrounding area are provided on Figures 4a and 4b, respectively. Single family residential land uses surround the Project site in all directions. The rear yards of adjacent residences abut the Project site on all sides. The City of Tustin city limits is adjacent to the eastern Project site boundary.

No public sidewalks are present around or through the Project site. There is a pedestrian access between the eastern end of the parking lot to Racquet Hill Road to the east, via a series of steps leading to a level, paved sidewalk, which leads to Racquet Hill Road. No public transit services are available on or directly adjacent to the site.

The site does not support any natural open space or native vegetation; however, there is mature ornamental landscaping onsite, which includes, but is not limited to, palm trees, pepper trees, pine trees, hedge, and turf. Storm water currently leaves the Project site via a concrete drainage ditch located in the most southerly corner of the site, which conveys flows for approximately 200 feet to a City of Tustin storm drain system. The City's system drains to the San Diego Creek located approximately four miles to the south and ultimately into the Upper Newport Bay. Upper Newport Bay is hydraulically connected to Lower Newport Bay and the Pacific Ocean.

Regional Setting

The Project site is in the South Coast Air Basin and under the jurisdiction of the South Coast Air Quality Management (SCAQMD). The Project is located within the Santa Ana River Basin and would be subject to the requirements of the Santa Ana Regional Water Quality Control Board (RWQCB) and County of Orange.

The Project site is located along the eastern portion of the Coastal Plain of Orange County, situated on the western flank of the foothills at the base of the Santa Ana Mountains northwest of Peters Canyon Wash. The Project site is located within the *USGS* Orange, 7.5-minute Topographic Map.

Additional existing setting descriptions are provided in the topical environmental sections (3.1 through 3.20) that are relevant to the specific environmental topic.

1.10 Public Agency Approvals and Recommendations

Table 1 below provides a summary of public agency approvals and recommendations that are associated with the Project.

Table 1: Public Agency Approvals

Entity	Action
County of Orange	
Planning Commission	Recommendations to the Board of Supervisors on each component of the proposed Project including the Initial Study/Mitigated Negative Declaration (IS/MND), the Zone Change and the Use Permit for a Planned Development (PA 180034).
Board of Supervisors	Adoption of the IS/MND; approval of the Zone Change and the Use Permit for the planned development of 37 units (PA180034).
Subdivision Committee	Vesting Tentative Tract Map (TT18119) approval.
County Public Works (OCPW)	Water Quality Management Plan (WQMP); demolition permit; grading permit
Orange County Fire Authority (OCFA)	
OCFA	Fire Protection Plan approval
East Orange Water District	
EOWD	Approval of the design for the water and sewer lines and acceptance of the sewer lift station.
City of Tustin	
City of Tustin Water Services Department	Approval of the design for the domestic water service.

1.11 California Native American Tribal Consultation

Pursuant to Public Resources Code Section 21080.3.1 (Assembly Bill [AB] 52), the County of Orange has conducted the required outreach to the applicable Native American tribes. This process is further discussed in Section 3.18, Tribal Cultural Resources.

1.12 Environmental Factors Potentially Affected

The State CEQA Guidelines require the preparation of an IS/MND if the Initial Study prepared for a project identifies potentially significant effects, but (1) revisions in the project plans or proposals made by or agreed to by the applicant before an IS/MND and Initial Study are released for public review would avoid the effects or mitigate the effects to a point where clearly no significant effects would occur and (2) there is no substantial evidence, in light of the whole record before the Lead Agency, that the project as revised may have a significant effect on the environment (State CEQA Guidelines, Section 15070[b]).

The County utilizes the most current CEQA Environmental Checklist from the State CEQA Guidelines, which is revised from time to time by the Secretary for Natural Resources, to assist in the evaluation of the potential environmental impact of a proposed project. The updated Appendix G: Environmental Checklist of the State California Environmental Quality Act (CEQA) Guidelines was used in preparing this IS/MND. The Checklist form is designed for use when the initial analysis is conducted for a proposed project to ensure it addresses the breadth of issues required by CEQA. This Environmental Checklist form is also consistent with the Orange County Local CEQA Procedures Manual.

Table 2 below lists the environmental factors that are evaluated in Section 3 of this document. Environmental factors that are checked contain at least one impact that has been determined to be a "Potentially Significant Impact." Environmental factors unchecked indicate that impacts were determined to have resulted in no impacts, less than significant impacts, or less than significant impacts with mitigation measures or County Standard Conditions of Approval incorporated into the Project.

Section numbers in parentheses following each environmental factor correspond to the environmental impact analysis in Section 3.

Table 2: Environmental Factors Potentially Affected

☐ Aesthetics (3.1)	☐ Mineral Resources (3.12)
☐ Agriculture & Forestry Resources (3.2)	☐ Noise (3.13)
☐ Air Quality (3.3)	☐ Population & Housing (3.14)
☒ Biological Resources (3.4)	☐ Public Services (3.15)
☐ Cultural Resources/Scientific Resources (3.5)	☐ Recreation (3.16)
☐ Energy (3.6)	☒ Transportation/Traffic (3.17)
☒ Geology and Soils (3.7)	☒ Tribal Cultural Resources (3.18)
☐ Greenhouse Gas Emissions (3.8)	☐ Utilities & Service Systems (3.19)
☐ Hazards & Hazardous Materials (3.9)	☐ Wildfire (3.20)
☐ Hydrology & Water Quality (3.10)	☒ Mandatory Findings of Significance (3.21)
☐ Land Use & Planning (3.11)	

Environmental Determination

Based on the analysis conducted in this Initial Study, the following has been determined:

Table 3: Environmental Determination

I find that there is no substantial evidence that the project will have a significant effect on the environment, and a **NEGATIVE DECLARATION** will be prepared.	☐
I find that although the proposed project could have a significant effect on the environment, revisions to the project or proposals have been made by or agreed to by the project proponent, that will avoid the effects or mitigate the effects to where no significant effects on the environmental will occur. A **MITIGATED NEGATIVE DECLARATION** will be prepared.	☒
I find that the proposed project MAY have a significant effect on the environment, and an **ENVIRONMENTAL IMPACT REPORT** is required.	☐
I find that the proposed project MAY have a "potentially significant impact" or "potentially significant unless mitigated" impact on the environment, but at least one effect 1) has been adequately analyzed in an earlier document pursuant to applicable legal standards, and 2) has been addressed by mitigation measures based on the earlier analysis as described on attached sheets. An **ENVIRONMENTAL IMPACT REPORT** is required, but it must analyze only the effects that remain to be addressed.	☐
I find that although the proposed project could have a significant effect on the environment, because all potentially significant effects (a) have been analyzed adequately in an earlier **EIR** or **NEGATIVE DECLARATION** pursuant to applicable standards, and (b) have been avoided or mitigated pursuant to that earlier **EIR** or **NEGATIVE DECLARATION**, including revisions or mitigation measures that are imposed upon the proposed project, nothing further is required.	☐
I find that the proposed project has previously been analyzed as part of an earlier CEQA document (which either mitigated the project or adopted impacts pursuant to findings) adopted/certified pursuant to State and County CEQA Guidelines. The proposed project is a component of the whole action analyzed in the previously adopted/certified CEQA document.	☐
I find that the proposed project has previously been analyzed as part of an earlier CEQA document (which either mitigated the project or adopted impacts pursuant to findings) adopted/certified pursuant to State and County CEQA Guidelines. Minor additions and/or clarifications are needed to make the previous documentation adequate to cover the project which are documented in this addendum to the earlier CEQA document (CEQA §15164).	☐
I find that the proposed project Has previously been analyzed as part of an earlier CEQA document (which either mitigated the project or adopted impacts pursuant to findings) adopted/certified pursuant to State and County CEQA Guidelines. However, there is important new information and/or substantial changes have occurred requiring the preparation of an additional CEQA document (ND or EIR) pursuant to CEQA Guidelines Sections 15162 through 15163.	☐

Kevin Shannon
Signature

April 21, 2020
Date

Kevin Shannon
Name

Evaluation of Environmental Impacts:

1) A brief explanation is required for all answers except "No Impact" answers that are adequately supported by the information sources a lead agency cites in the parentheses following each question. A "No Impact" answer is adequately supported if the referenced information sources show that the impact simply does not apply to projects like the one involved (e.g., the project falls outside a fault rupture zone). A "No Impact" answer should be explained where it is based on project-specific factors as well as general standards (e.g., the project will not expose sensitive receptors to pollutants, based on a project-specific screening analysis).

2) All answers must take account of the whole action involved, including off-site as well as on-site, cumulative as well as project-level, indirect as well as direct, and construction as well as operational impacts.

3) Once the lead agency has determined that a particular physical impact may occur, then the checklist answers must indicate whether the impact is potentially significant, less than significant with mitigation, or less than significant. "Potentially Significant Impact" is appropriate if there is substantial evidence that an effect may be significant. If there are one or more "Potentially Significant Impact" entries when the determination is made, an EIR is required.

4) "Negative Declaration: Less Than Significant With Mitigation Incorporated" applies where the incorporation of mitigation measures has reduced an effect from "Potentially Significant Impact" to a "Less Than Significant Impact." The lead agency must describe the mitigation measures, and briefly explain how they reduce the effect to a less than significant level (mitigation measures from "Earlier Analyses," as described in (5) below, may be cross-referenced).

5) Earlier analyses may be used where an effect has been adequately analyzed in an earlier EIR or negative declaration. Section 15063(c)(3)(D). In this case, a brief discussion should identify the following:

    a) Earlier Analysis Used. Identify and state where they are available for review.

    b) Impacts Adequately Addressed. Identify which effects from the above checklist were within the scope of and adequately analyzed in an earlier document pursuant to applicable legal standards, and state whether such effects were addressed by mitigation measures based on the earlier analysis.

    c) Mitigation Measures. For effects that are "Less than Significant with Mitigation Measures Incorporated," describe the mitigation measures which were incorporated or refined from the earlier document and the extent to which they address site-specific conditions for the project.

6) Lead agencies are encouraged to incorporate into the checklist references to information sources for potential impacts (e.g., general plans, zoning ordinances). Reference to a previously prepared or outside document should, where appropriate, include a reference to the page or pages where the statement is substantiated.

7) Supporting Information Sources: A source list should be attached, and other sources used or individuals contacted should be cited in the discussion.

8) The explanation of each issue should identify:

    a) the significance criteria or threshold, if any, used to evaluate each question; and

b) the mitigation measure identified, if any, to reduce a significant or potentially significant impact to a less than significant level.

The following information is provided to supplement the Evaluation of Environmental Impacts discussed above.

Thresholds of Significance

A threshold of significance is an identifiable quantitative, qualitative, or a performance level of a particular environmental effect, non-compliance with which means the effect will normally be determined to be significant by the agency and compliance with which means the effect will normally be less than significant (Guidelines §15064.7(a)).

The County has not adopted thresholds of significance and therefore relies upon the specific questions relating to environmental impact areas listed in Appendix G of the State CEQA Guidelines to determine a level of significance.

Environmental Baseline

To adequately determine the significance of a potential environmental impact, the environmental baseline must be established. State CEQA Guidelines Section 15125(a) states in pertinent part that the existing environmental setting will normally constitute the baseline physical conditions by which a lead agency will determine if an impact is significant. Therefore, the environmental baseline for this Project constitutes the current physical conditions as they exist at the time that the environmental process commenced. An overview of the environmental setting, which serves as the environmental baseline is provided in Section 1.9.

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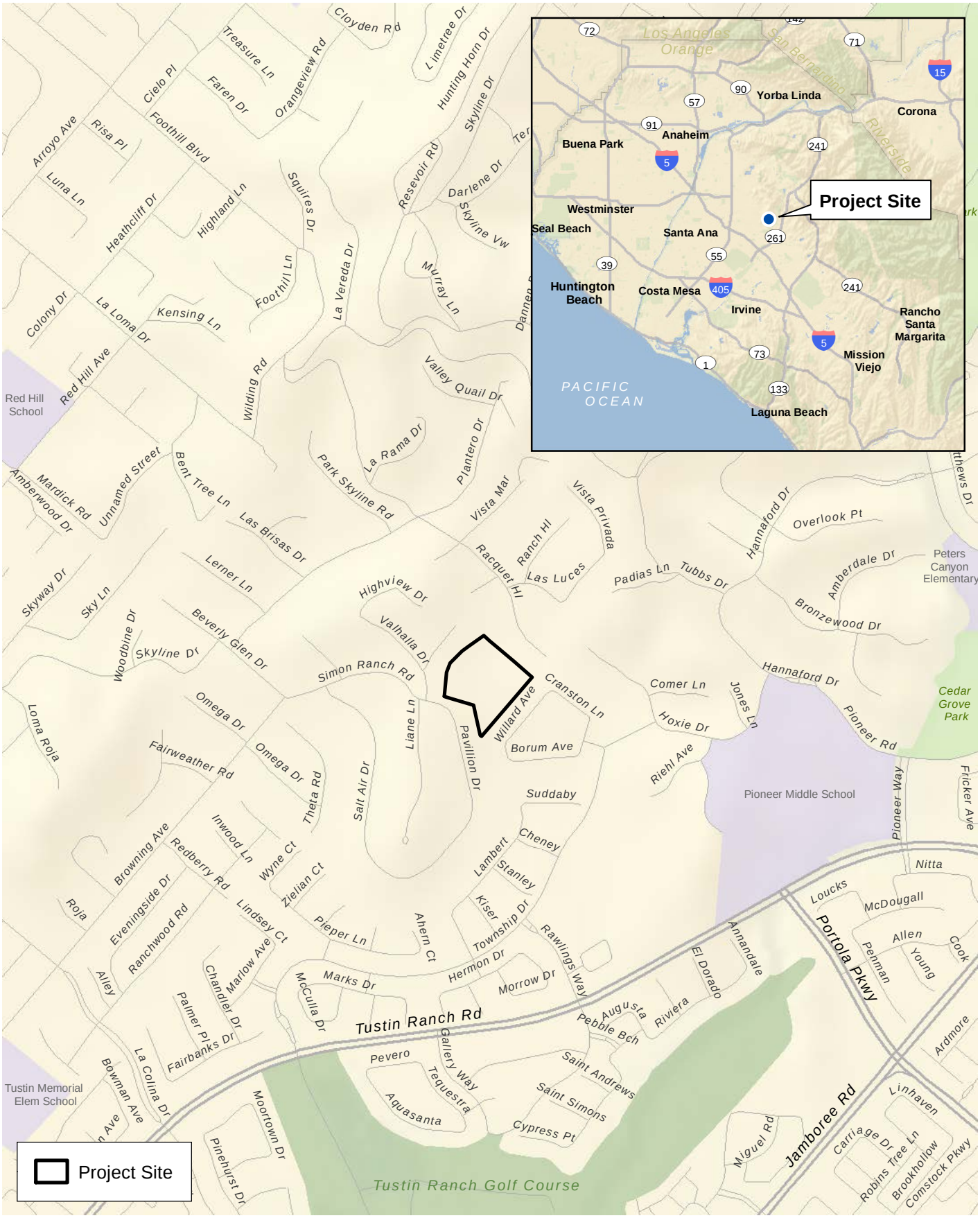

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Location

Figure 1

Ranch Hills Community

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Los Angeles County

San Bernardino County

Project Site

LAND USE DESIGNATIONS

RESIDENTIAL

- 1A — **Rural Residential** — *Rural Residential Communities (.025 - 0.5 DU/ Ac.)*
- 1B — **Suburban Residential** — *Suburban Residential Communities (0.5 - 18 DU/Ac.)*
- 1C — **Urban Residential** — *Urban Residential Communities (18 and above DU/ Ac.)*

COMMERCIAL

- 2A — **Community Commercial**
- 2B — **Regional Commercial**

EMPLOYMENT

- 3 — **Employment**

PUBLIC FACILITIES

- 4 — **Public Facilities**
- 4 (LS) — **Landfill Site** (An overlay designation)

OPEN SPACE

- 5 — **Open Space**
- 5 — **Open Space Reserve** — *Generalized reserve boundaries for informational purposes only.*
- **Cleveland National Forest** — *For informational purposes only. May contain private inholdings.*

URBAN ACTIVITY CENTER

- 6 — **Urban Activity Center**

Cleveland National Forest Congressional Boundary

City/County Jurisdiction

Sphere of Influence Boundary

Source: OC Public Works, 2015

General Plan Designation

Figure 2

Ranch Hills Community

N W E S

0 1 2 4 Miles

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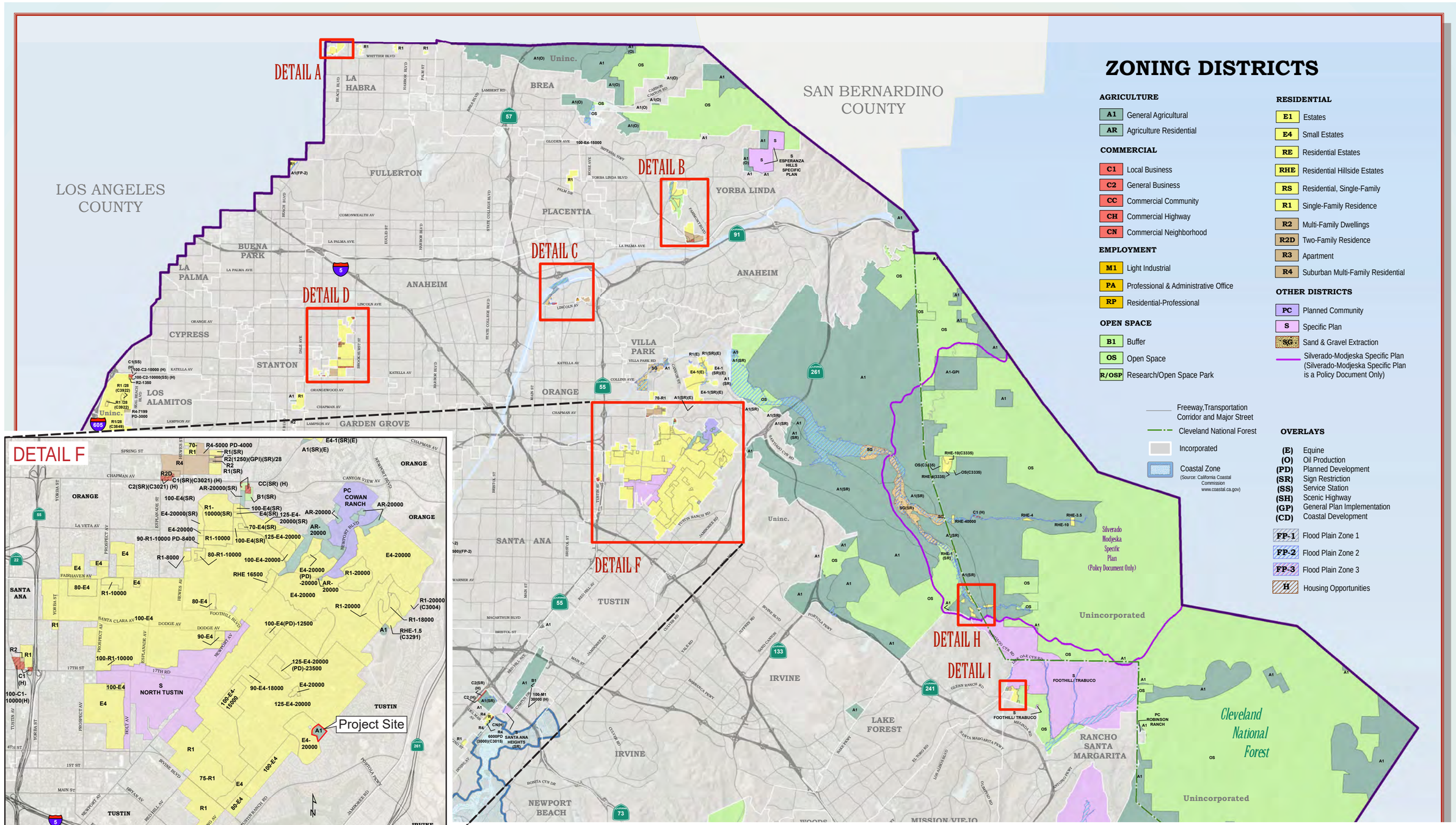

ZONING DISTRICTS

AGRICULTURE
- A1 General Agricultural
- AR Agriculture Residential

COMMERCIAL
- C1 Local Business
- C2 General Business
- CC Commercial Community
- CH Commercial Highway
- CN Commercial Neighborhood

EMPLOYMENT
- M1 Light Industrial
- PA Professional & Administrative Office
- RP Residential-Professional

OPEN SPACE
- B1 Buffer
- OS Open Space
- R/OSP Research/Open Space Park

RESIDENTIAL
- E1 Estates
- E4 Small Estates
- RE Residential Estates
- RHE Residential Hillside Estates
- RS Residential, Single-Family
- R1 Single-Family Residence
- R2 Multi-Family Dwellings
- R2D Two-Family Residence
- R3 Apartment
- R4 Suburban Multi-Family Residential

OTHER DISTRICTS
- PC Planned Community
- S Specific Plan
- SG Sand & Gravel Extraction
- Silverado-Modjeska Specific Plan (Silverado-Modjeska Specific Plan is a Policy Document Only)

Freeway,Transportation Corridor and Major Street
Cleveland National Forest
Incorporated
Coastal Zone (Source: California Coastal Commission www.coastal.ca.gov)

OVERLAYS
- (E) Equine
- (O) Oil Production
- (PD) Planned Development
- (SR) Sign Restriction
- (SS) Service Station
- (SH) Scenic Highway
- (GP) General Plan Implementation
- (CD) Coastal Development
- FP-1 Flood Plain Zone 1
- FP-2 Flood Plain Zone 2
- FP-3 Flood Plain Zone 3
- H Housing Opportunities

Source: OC Public Works, 2015

Existing Zoning Designation

Figure 3a

Ranch Hills Community

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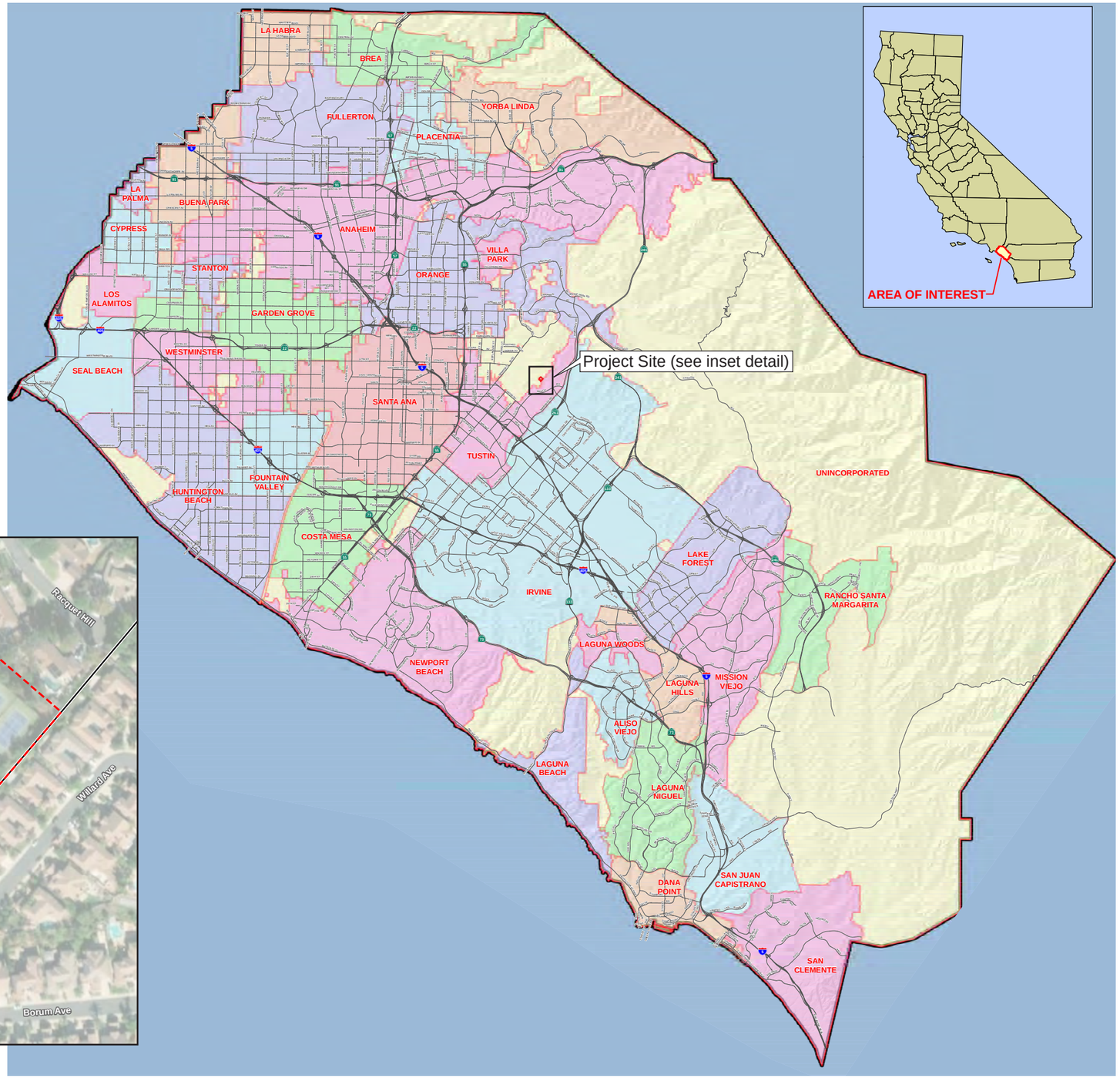

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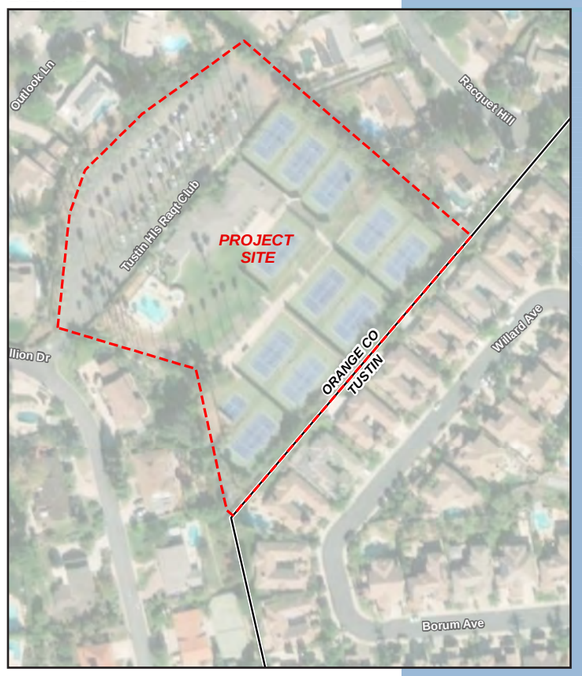

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Source: County of Orange, 2019

Political Boundaries of Orange County (Cities and Unincorporated)

Figure 3b

Ranch Hills Community

N W E S

0 2 4 8 Miles

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Aerial Source: ESRI DigitialGlobe 2018

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Aerial Photograph

Figure 4a

Ranch Hills Community

N
W E
S

150 75 0 150

Feet

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Project Site

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Aerial Photograph

Figure 4b

Ranch Hills Community

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Section 2: Project Description

Introduction

The purpose of this section is to describe the characteristics of the proposed Project. This section includes the following subsections:

Section 2.1 Purpose and Intent
Section 2.2 Building Characteristics
Section 2.3 Site Characteristics
Section 2.4 Utilities Characteristics
Section 2.5 Project Phasing and Schedule

2.1 Purpose and Intent

Purpose of this Environmental Document

In accordance with the California Environmental Quality Act (CEQA) (*California Public Resources Code,* Section 21000 et seq.) and the State CEQA Guidelines (*California Code of Regulations,* Title 14, Section 15000 et seq.), this Initial Study (IS) has been prepared for the proposed Project and its associated discretionary approvals. The County of Orange (County), as the lead agency, has determined that either no significant effects on the environment would occur as a result of the Project or that potentially significant impacts of the Project would be reduced to less than significant levels with implementation of mitigation measures, and therefore requires preparation of an IS and Mitigated Negative Declaration (IS/MND) as the appropriate CEQA document.

Pursuant to Section 15367 of the State CEQA Guidelines, the lead agency is the public agency that has the principal responsibility of carrying out or approving a project that may have a significant effect on the environment. The County is the lead agency since the proposed Project would be located in unincorporated Orange County, which the County has the land use authority. Therefore, the County, as lead agency, has the responsibility for environmental review of the Project in accordance with CEQA and adoption of the environmental documentation.

This IS has evaluated each of the environmental issue areas contained in the CEQA Guidelines Environmental Checklist provided in Section 3 of this document and will serve to inform the County decision makers, representatives of affected/responsible agencies, and other interested parties of the potential environmental effects that may occur with implementation of the proposed Project.

Project Objectives

The Applicant is proposing to demolish the existing facilities of the Tustin Hills Racquet Club (i.e., 11 full sized and one half-sized [practice] tennis courts, a swimming pool with two small spas, a lawn/outdoor event area, and two single-story buildings with banquet spaces, meeting rooms and administrative offices for a total of approximately 10,000 square feet). The facility is served by a paved parking area that can accommodate approximately 127 cars. The Project would construct 37 units comprised of 34 single-family townhome units and 3 single-family detached units (refer to Section 1.9). As noted in Table 1, several public agency approvals are required as part of this process. The Project proposes a Zone Change to ensure the property's zoning designation is consistent with the proposed use, a Use Permit for a planned development (PA180034), and a Vesting Tentative Tract Map (VTTM 18119).

The Project is being proposed to meet the following objectives:

- Provide homes that would meet the increased demand and shortage of housing in the North Tustin community, especially for people (i.e., active adults)[1] seeking to downsize but stay in the same general area.
- Provide for a residential use compatible with the surrounding residential development in the area.
- Create an environmentally sensitive development through implementation of drought tolerant landscaping and compliance with the most current low impact (i.e., water conservation) development standards.
- Redevelop the Project site in a manner that minimizes impacts on the circulation network and significantly reduces traffic and environmental impacts of the existing commercial use.

2.2 Building Characteristics

Architectural Theme

Although a specific architectural theme has not been identified for the proposed Project, exterior concept designs have been developed and are provided in Figures 5a and 5b. The proposed Project would provide two floor plans with two elevation designs, which will create architectural variation and attractive building articulation compatible with the surrounding community. Additionally, architectural variation of the façade will help to create more interesting street scenes.

Floor Plans

The average floor plan would provide 2 to 3 bedrooms and 3.5 bathrooms with approximately 2,500 square feet (sf) of living space. Homes would be one and two stories with a maximum height of 35 feet. Each home will have ground floor living exclusivity with a full master suite on the ground level and the second floor devoted to a bonus room, bedroom, or home office. Each home in the community will have floor plans which have been specifically designed for the "active adult" market and demographic. This most important feature of the floor plans is the inclusion of a ground floor master suite in each home. Each home will therefore allow for single floor living without the use of stairs to access the master bedrooms. Kitchens, dining, indoor and outdoor living areas will all be on the ground floors. Secondary bedroom and or a home office will also be located on the same first floor.

The proposed Project will provide existing members of the community the opportunity to remain in the community while enjoying the convenience and comfort of a brand new, modern and thoughtfully designed home with the ease of single floor living. In addition, the proposed Project will provide an economic benefit to the surrounding community in that as existing homeowners choose to relocate to the proposed development, it will create the opportunity for new families to purchase homes in the area.

Lighting

Site lighting would be limited to exterior lighting associated with each unit and street lighting required for safety. Entry monument would include landscape lighting, as permitted and required by the County regulations and standards. Low level way-finding lighting for pedestrians/community residents would be

[1] A general term referring to 55+ age group of active older adults. An active adult community is an age-targeted or age-restricted development designed for people aged 55 or older. Active adult homes are often designed to have a single-floor living arrangement.

provided in the common and recreation areas of the community for safety. Consistent with the surrounding development, street lighting would be provided at street intersections, and as required by the County regulations and standards. This would contribute to the suburban character of the area. All exterior lighting will be designed to minimize glare and light spillage onto adjacent properties (i.e., shielding of street lights). Consistent with current building code requirements and the County Standard Conditions of Approval (LG01), prior to issuance of a building permit a lighting plan would be submitted and approved by the Manager of Building and Safety (see Section 3.1, SC AES-1 for this requirement).

2.3 Site Characteristics

Zoning Requirements

The Project is proposing a zone change to change the zoning designation from A1 "General Agricultural" to R2(5000). This new designation would be consistent with the General Plan designation of Suburban Residential (1B) which provides for residential development on the site of from 0.5 to 18 du/ac. The Zoning Code (Section 7-9-77.1) states "The R2 District is established to provide for the development and maintenance of very-high-density multifamily residential neighborhoods with a low building height and a minimum amount of open space. Those uses are permitted that are complementary to and compatible with such a residential neighborhood."

As proposed, the R2 District development regulations would be further refined and limited by the (5000) designation. In any district, the minimum required development standards may be different from that set forth in the regulations of the base district, if so specified on the zoning district map. A number following the district symbol and enclosed by parentheses designates the minimum net land area per unit, in square feet, required for each dwelling unit. This is not a minimum lot area per unit but rather an average over the project's net land area. The project net area would exclude areas such as the private streets and certain easements.

The net effect of the proposed zoning designation would limit the maximum development potential on the Project site to between 35 and 45 dwelling units and would be based on the specific project's design and the resulting project net area calculation. This would provide for a density range of between 5.9 and 8.5 dwelling units per acre (du/ac). Accordingly, the Project proposes a density of 6.3 du/ac.

Use Permit

The R2 District also permits the development of planned developments (PD), consistent with the provisions of Zoning Code Section 7-9-110 and subject to the approval of a Use Permit by the Planning Commission and provides the following purpose and intent:

> The purpose of a PD is to provide a method whereby land may be developed utilizing design features which take advantage of modern site planning techniques to produce an integrated development project providing an environment of stable, desirable character which will be in harmony with existing and potential development of the surrounding neighborhood. For planned developments, building locations need not satisfy the base R2 district setback regulations but are established by the approved use permit. Because the Zone Change component of the application requires a final action by the Board of Supervisors, for this application the Board will also be the final approving authority for the Use Permit.
>
> The regulations of this district are intended to produce planned development projects which meet standards of open space, light and air, and density of land uses which provide for better

use of common areas, open space and off-street parking facilities and provide for safe and efficient vehicular and pedestrian circulation. These regulations are intended to be utilized only for integrated planned development projects and should not be utilized for the establishment of individual land uses or structures unless they would become an integral part of an existing planned development.

Vesting Tentative Tract Map

A Vesting Tentative Tract Map (VTTM 18119) would be processed to allow for the development of 37 units comprised of 34 single-family townhome units and 3 single-family detached units. Figures 6a and 6c, depict the VTTM and associated cross-sections, respectively. In addition, open space areas, which includes common recreational facilities and landscaped areas are proposed. Figure 7 provides a Conceptual Site Plan for the proposed Project.

Landscaping

A unified landscape plan would be developed to create visual harmony with the architecture. The proposed Project would provide front yard landscaping consistent with the Section 7-9-132.2, landscaping, of the County's Code of Ordinance. The plant palette (Figure 8a and 8b) requires all planting to be drought tolerant and comply with the County's Water Efficient Landscape Ordinance (Ord. No. 16-002) and with the Guidelines for Implementation of the Water Efficient Landscape Ordinance. All landscaping would be maintained either by the individual property owner or a homeowners association. As discussed in Section 3.1, Aesthetics, the landscape plan shall conform to County requirements (Standard Condition LA02).

Fencing and Walls

The Project includes a variety of walls and fences. As shown on Figures 6b and 6c, small (1 to 2-feet in height) retaining walls would be located between some of the duplex units. The wall would surround much of the development and would vary in height. The maximum wall height is shown as 12.5 feet, which would serve as a retaining wall and is located along a segment of the western property edge (depicted as Cross-Section E on Figure 6c). The primary uses for fences within the Project site would be at the main entrance to the development and to delineate common and private property as well as neighboring property boundaries. Fence design would be a combination of decorative, natural wood with concrete block where necessary as required by the County's Code of Ordinance, Section 7-9-132. To soften the appearance of the retaining walls, plants would be added adjacent to the walls.

Vehicular Access, Parking and Onsite Circulation

The existing access point to the Project site is located at the intersection of Pavillion Drive and Simon Ranch Road and would be the sole point of entry to the tract. Internal roads would be private streets that conform to County standards design plans. As shown on the Figure 6c, the typical section for Simon Ranch Road would remain as a 40-foot wide right-of-way, with two 15-foot travel lanes. Two cul-de-sac roadways would be provided for access internal to the development. The internal roadways would be designed consistent with the County's standard traffic requirements for private streets. Off-street parking would be designed consistent with the County's Zoning Code, Section 7-9-145. Internal circulation layout would meet the requirements of the Orange County Fire Authority (OCFA).

Two car garages would be provided with each unit. On-street parking would be allowed on one side of the street. Driveways will provide two additional on-site guest parking spaces.

Storm Water

The Project site currently drains by surface flows southerly along a concrete drainage ditch approximately 200 feet to a City of Tustin storm drain system, eventually draining to the San Diego Creek and Upper Newport Bay. The Project would construct an on-site storm drain system that would collect storm water runoff from the site in the on-site common driveway/street and be directed to an inlet at the end of the common driveway and convey the flows to the southerly corner of the site where it would connect to the existing concrete drainage ditch. A 3,360-square foot underground infiltration trench with 6 feet of gravel will be incorporated into the drainage system to treat the runoff.

Construction Staging Areas

Construction staging and material lay down areas would be confined to the Project site. Although no road closures would occur, a short-term lane closure would be required during construction phase of the Project. The project would include implementation of a construction Traffic Management Plan (TMP) to provide safe and effective roadway user flow through the work zone (refer to Section 3.17, Traffic, for further discussion).

Demolition Plans

Prior to the initiation of construction, demolition of the existing facilities would be required. A portion of the demolition debris (a minimum of 50 percent) would be recycled, reused, and/or salvaged in compliance with the California Green Building Standards Code (CALGreen Code). Where feasible, the proposed Project would involve on-site material recycling (such as the reuse of parking lot pavement for on-site road base). On-site material recycling would require the use of equipment such as a rock crusher. To avoid potential impacts related to dust and noise emissions, this equipment would be placed as far away as possible feasible from nearby residences. Materials that could not be recycled would be transported to a local landfill per governing regulations and best practices. Based on the Phase I Environmental Site Assessment (Appendix F-2) conducted for the site, there are no recognized environmental conditions (i.e., hazardous materials) on site that would require special accommodations (GEOCON 2017).

Grading Plans

The Project site is relatively flat and has been previously graded to accommodate the Tustin Hills Racquet Club. The Project would require minimal grading to accommodate the finish grade of the proposed residential units. Elevations of the site would range from approximately 285 feet above mean sea level (msl) at the northern edge of the property to 240 feet above msl at the southern edge of the property. Grading would be balanced onsite with an estimated total of 12,000 cubic yards of cut and fill. Therefore, no import or export of soil is anticipated. Figure 6b depicts the preliminary grading plan and Figure 6c shows a cross-section of the Project showing finished grades.

All construction staging and laydown areas would be located on-site although their precise locations would be responsive to where development is occurring. It is anticipated that the common areas would be used until such time as the final improvements are being implemented.

Standard construction Best Management Practices (BMPs) would be implemented to reduce construction-related effects such as fugitive dust, noise, and storm water runoff. BMPs to reduce fugitive dust emissions would include watering the active sites. BMPs for storm water runoff would include use of riprap, fiber rolls, and sediment traps.

Offsite Improvements Necessary to Implement the Project

A sewer lift station and two sewer force mains would be required to properly service the Project. These facilities are discussed below in Section 2.4, Utilities Characteristics.

2.4 Utilities Characteristics

The Project would require the extension of distribution lines for all utilities to serve the proposed Project. The improvements would include the construction of a new 8-inch water main and 8-inch sewer line. The Project includes an 8-inch sewer line that would be located in the internal roadway within the Project site and continue off-site into public right-of-way on Simon Ranch Road, near the entrance of the Project site. At the intersection of Simon Ranch Road and Pavillion Drive, the proposed sewer line would extend for a short-distance southerly along Pavillion Drive, where it would connect to the existing 8-inch sewer main in Pavillion Drive. In addition, a sewer lift station would be constructed on-site to convey flows emanating from the site. The lift station would be enclosed in a structure and would contain the equipment and controls required for the lift station. The lift station design would be installed underground. Odor control facilities, such as a hydrogen peroxide storage tank and metering pump, are standard design requirements for such facilities. Final design of the lift station would be coordinated with the East Orange County Water District. All electrical and communication lines and cables will be undergrounded from the nearest access point as recommended by the appropriate utility providers.

2.5 Project Phasing and Schedule

Project demolition, grading, and infrastructure installation is planned to occur in a single phase. The proposed residential units would be constructed in three phases with approximately 12 units completed in each phase of development.

Construction would start approximately two months after final approvals of the final plans and recordation of the vesting tentative tract map by the County, which is expected in early 2020. In conformance with Article 1, Section 4-6-7(e), *Special Provisions* of the County's Noise Control Ordinance and per Orange County regulations, construction activities will be limited to 7:00 a.m. and 8:00 p.m. on weekdays and Saturdays. No construction activities will occur on Sundays or Federal holidays. Project construction activities are anticipated to occur eight hours per day, up to five days per week (i.e. Monday through Friday). In addition, per County regulations and compliance with the Noise Ordinance, the Project will include the use of mufflers, and locate stock piles away from residential areas.

Source: JZMK Partners, 2018

Exterior Concept Design

Figure 5a

Ranch Hills Community

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PEDESTRIAN VIEW 1

PEDESTRIAN VIEW 2

STREET VIEW

Source: JZMK Partners, 2018

Exterior Concept Design

Figure 5b

Ranch Hills Community

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Notes:

7 NUMBERED AND 3 LETTERED LOTS
5.88 ACRES GROSS/NET (256,217 SF)
LAND NOT SUBJECT TO INUNDATION OR OVERFLOW.
NO LAND OR PARKS TO BE DEDICATED

Area & Density:

LOT 1 (RESIDENTIAL)	52,788 SF
LOT 2 (RESIDENTIAL)	49,781 SF
LOT 3 (RESIDENTIAL)	23,257 SF
LOT 4 (RESIDENTIAL)	23,735 SF
LOT 5 (RESIDENTIAL)	20,619 SF
LOT 6 (COMMON AREA)	16,075 SF
LOT 7 (COMMON AREA)	5,340 SF
LOT A (DRIVEWAY):	27,755 SF
LOT B (DRIVEWAY):	19,784 SF
LOT C (DRIVEWAY):	17,084 SF
GROSS LOT AREA:	256,218 SF
LOT 1 (RESIDENTIAL)	52,788 SF
LOT 2 (RESIDENTIAL)	49,781 SF
LOT 3 (RESIDENTIAL)	23,257 SF
LOT 4 (RESIDENTIAL)	23,735 SF
LOT 5 (RESIDENTIAL)	20,619 SF
LOT 6 (COMMON AREA)	16,075 SF
LOT 7 (COMMON AREA)	5,340 SF
PROP. UTILITY EASEMENT:	-1,490 SF
EXIST. S.C.E. EASEMENT:	-1,186 SF
NET LOT AREA:	188,918 SF

PROPOSED CONDOMINIUM UNITS: 37 DU

NET AREA/UNIT = 188,918 SF/37 UNITS = 5,106 SF/UNIT

Legal Description:

THAT PORTION OF BLOCK 42 OF IRVINE'S SUBDIVISION, AS SHOWN ON A MAP RECORDED IN BOOK 1, PAGE 88 OF MISCELLANEOUS MAPS, RECORDS OF ORANGE COUNTY, CALIFORNIA, DESCRIBED AS FOLLOWS:
BEGINNING OF THE NORTHERLY CORNER OF LOT 320 IN BLOCK 43 OF SAID IRVINE'S SUBDIVISION; THENCE NORTH 40° 00' EAST 20.00 CHAINS; THENCE SOUTH 50° 00' EAST 20.00 CHAINS TO A ONE AND ONE-HALF INCH IRON PIPE MARKING AN ANGLE POINT IN THE BOUNDARY OF THAT CERTAIN PARCEL OF LAND DESCRIBED IN DEED TO SHERMAN STEVENS, RECORDED JULY 16, 1912 IN BOOK 218, PAGE 231 OF DEEDS, AND THE TRUE POINT OF BEGINNING; SOUTH 40° 00' WEST 587.00 FEET ALONG THE SOUTHEASTERLY LINE OF SAID STEVEN LAND, THENCE NORTH 50° 00' 00" WEST 13.24 FEET; THENCE NORTH 12° 50' 00" WEST 230.42 FEET; THENCE NORTH 73° 53' 30" WEST 230.01 FEET; THENCE NORTH 19° 21' 40" EAST 74.64 FEET; THENCE NORTH 44° 54' 50" EAST 127.61 FEET; THENCE NORTH 53° 50' 23" EAST 199.89 FEET TO A POINT ON THE NORTHEASTERLY LINE OF SAID STEVENS LAND; THENCE SOUTH 50° 00' EAST 477.81 FEET ALONG SAID NORTHEASTERLY LINE TO THE TRUE POINT OF BEGINNING

Benchmark:

ORANGE COUNTY SURVEY VERTICAL CONTROL NUMBER "3A-109-79"
LAT. 33° 45' 30.39720" LONG. 117° 48' 07.21354"
MONUMENT IS SET IN KNOWN SUBSIDENCE ZONE AND MAY NOT FIT ADJACENT BENCHMARKS.
DESCRIBED BY OCS 2002 - FOUND 3 3/4" OCS ALUMINUM BENCHMARK DISK STAMPED "3A-109-79", SET IN THE SOUTHEASTERLY CORNER OF A 4 BY 4.5 FT. CONCRETE CATCH BASIN.
MONUMENT IS LOCATED IN THE SOUTHEASTERLY CORNER OF THE INTERSECTION OF 17TH STREET AND NEWPORT AVENUE, 48 FT. SOUTHEASTERLY OF THE CENTERLINE OF NEWPORT AVENUE AND 40 FEET SOUTHWESTERLY OF THE CENTERLINE OF EL CAMINO LANE. MONUMENT IS SET LEVEL WITH THE SIDEWALK.
ELEVATION: 197.328' (NAVD88) 1995 ADJ.

Utilities:

CABLE	COX COMMUNICATIONS
ELECTICITY	SO. CAL. EDISON
GAS	SO. CAL. GAS COMPANY
SEWER	ORANGE COUNTY SANITATION DISTRICT
WATER	TUSTIN WATER DEPARTMENT
SCHOOL DISTRICT	TUSTIN UNIFIED SCHOOL DISTRICT

Access:

- ACCESS TO THE PROJECT IS FROM SIMON RANCH ROAD, AN EXISTING PUBLIC TSREET. THE PAVED ON-SITE PRIVATE DRIVEWAY IS 28 FEET WIDE IN COMPLIANCE WITH O.C.P.D. STD. PLAN 1107 WHICH REQUIRES A MINIMUM PAVED WIDTH OF 24' FOR DIRVEWAYS SERVING MORE THAN 4 UNITS.

Deviation from County Standards:

THE PROJECT PROPOSES A DEVIATION FROM ORANGE COUNTY PUBLIC WORKS DEPARTMENT STANDARD PLAN 1112 FOR STANDARD KNUCKLE WITH MODIFIED KNUCKLE DESIGN AS SHOWN ON MAP.

Land Use:

EXISTING: RECREATION (TENNIS CLUB)
PROPOSED: 37 RESIDENTIAL CONDOMINIUM UNITS & COMMON AMENITIES

Zoning

Existing: A1
Proposed: RZ-5000

Site Address:

11782 SIMON RANCH ROAD
UNINCORPORATED TERRITORY OF THE COUNTY OF ORANGE, CA

Assessor's Parcel Number:

104-321-01

Flood Zone:

ZONE X, OUTSIDE THE 500 YEAR FLOOD BOUNDARIES.

Estimated Grading Quantities:

RAW CUT= 12,000 CY
RAW FILL= 12,000 CY
IMPORT = 0 CY

Owner/Subdivider:

Ranch Hill Partners LP.
2454 Alton Pkwy.
Irvine, California 92606

LEGEND:

AC	ASPHALTIC CONCRETE
CF	CURB FACE
EX	EXISTING
FF	FINISHED FLOOR ELEVATION
FH	FIRE HYDRANT
FS	FINISHED SURFACE
PAD	PAD ELEVATION
PCC	PORTLAND CEMENT CONCRETE
ST LT	STREET LIGHT
SF	SQUARE FEET
TC	TOP OF CURB

CENTERLINE
CURB & GUTTER
DAYLIGHT LINE
PROPERTY LINE
SEWER
TRACT BOUNDARY
WATER MAIN
DRAIN PIPE
INLET

Source: Robin B. Hamers & Assoc., Inc. Civil Engineers, 2020

Vesting Tentative Tract Map

Figure 6a

Ranch Hills Community

N W E S

0 60 120 240 Feet

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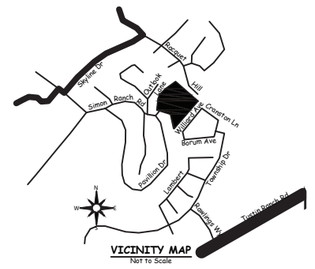
CENTERLINE
CURB & GUTTER
DAYLIGHT LINE
PROPERTY LINE
SEWER
TRACT BOUNDARY
WATER MAIN
DRAIN PIPE
INLET



Source: Robin B. Hamers & Assoc., Inc. Civil Engineers, 2020

Preliminary Grading Plan

Figure 6b

Ranch Hills Community

0 60 120 240 Feet

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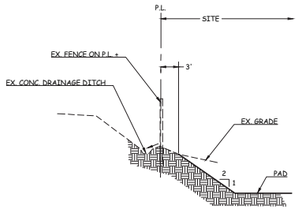

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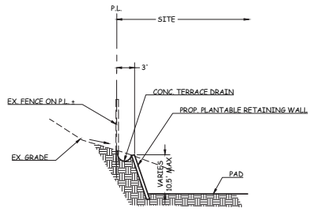

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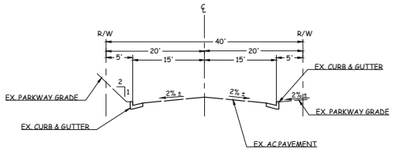

Typical Section: Simon Ranch Road
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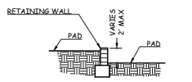

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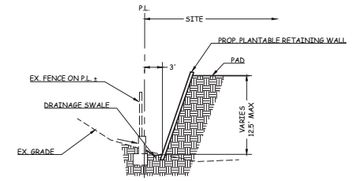

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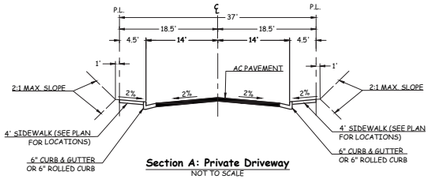
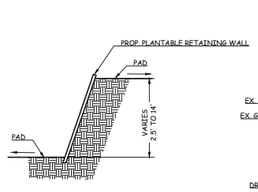


Section A: Private Driveway
NOT TO SCALE

SECTION J
NOT TO SCALE



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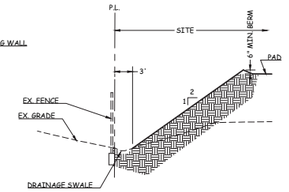

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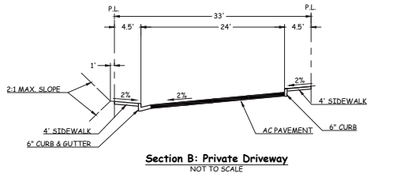

Section B: Private Driveway
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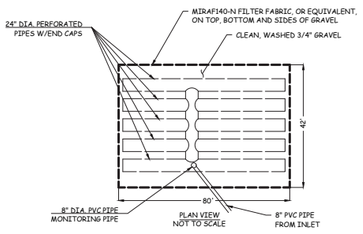
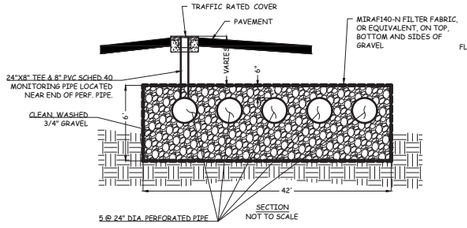
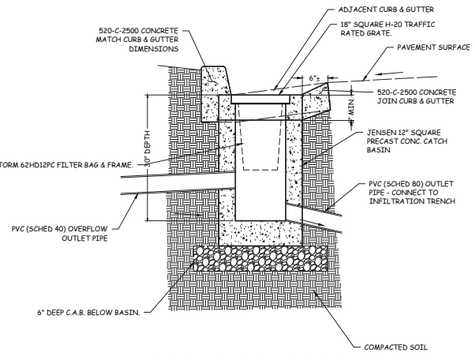


PLAN VIEW
NOT TO SCALE

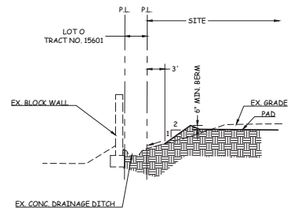


SECTION
NOT TO SCALE

BMP-1: INFILTRATION TRENCH
TRENCH AREA= 80'X42' = 3360 SF
TOTAL STORAGE: 7811 CF



18" DROP INLET W/CB INSERT(DRIVEWAY)
NOT TO SCALE



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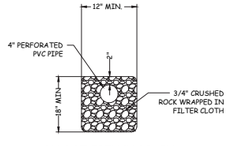
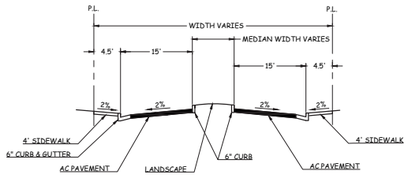


ON-LOT FRENCH DRAIN
NOT TO SCALE

NOTE:
EACH UNIT TO INCLUDE 10 L.F. OF FRENCH DRAIN PER 1,000 S.F. OF IMPERVIOUS SURFACES.



Section C: Private Driveway
NOT TO SCALE

Source: Robin B. Hamers & Assoc., Inc. Civil Engineers, 2018

Vesting Tentative Tract Map Cross-Sections

Figure 6c

Ranch Hills Community

Source: JZMK Partners, 2020

Conceptual Site Plan

Figure 7

Ranch Hills Community

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OLEA EUROPAEA


AFRICAN SUMAC


LAGERSTROEMIA INDICA


ARBUTUS MARINA TREE


PUNICA GRANATUM


LOPHOSTEMON CONFERTUS


CITRUS

POTENTIAL TREE LEGEND - MODERN FARMHOUSE

Cupaniopsis anacardioides	Carrot Wood
Lagerstroemia hybrid 'muskogee'	Crape Myrtle
Lagerstroemia hybrid 'natchez'	Crape Myrtle
Lophostemon confertus	Brisbane Box
Melaleuca linarifolia	Flaxseed Paperbark
Melaleuca quinqenervia	Broad Leaved Paperbark
Metrosideros excelsus	New Zealand Christmas Tree
Olea europea	European Olive
Pistacia chinensis	Chinese Pistache
Podocarpus gracilior	Fern Pine
Quercus ilex	Holly Oak
Quercus suber	Cork Oak
Quercus virginiana	Southern Live Oak
Rhus lancea	African Sumac
Ulmus parvifolia 'drake'	Drake Elm
Apricot	Apricot
Avocado species	AvocadoTree
Citrus 'valencia'	Orange
Eriobotrya japonica	Kumquat
Ficus carica	Loquat
Plums	Fig
Punica granatum	Plum
	Pomegranate

Source: BGB Design Group, 2019

Plant Palette

Figure 8a

Ranch Hills Community

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PENNISETUM HAMELN


HESPERALOE PARVIFLORA BREAKLIGHTS

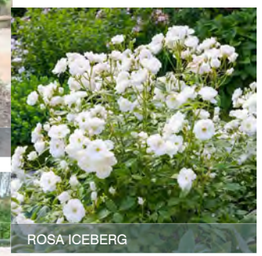

DIANELLA BABY BLISS


BOUGAINVILLEA


MUHLENBERGIA CAPILLARIS


CAREX DIVULSA


CALLISTEMON LITTLE JOHN


ROSA ICEBERG


LOMANDRA LONGIFOLIA


BACCHARIS PILULARIS COYOTE BUSH


ANIGOZANTHOS FLAVIDUS


ROSMARINUS OFFICINALIS


DIANELLA TASMANICA VARIEGATA


SENECIO BLUE CHALK


BULBINE FRUTESCENS


LANTANA NEW GOLD


ALOE STRIATA


AGAVE ATTENUATA

POTENTIAL SHRUBS/GROUNDCOVER LEGEND - MODERN FARMHOUSE

Anisodontea hypomandarum
Bougainvillea 'Raspberry Ice'
Bougainvillea 'San Diego Red'
Buddleja davidii x weyeriana
Buxus species
Callistemon 'Little John'
Cistus 'Sunset'
Dietes bicolor
Dianella 'Cassa Blue'
Grewia occidentalis
Justicia brandegeana
Lavandula angustifolia
Lavandula stoechas
Ligustrum japonicum 'Texanum'
Loropetalum chinense
Myrtus communis 'Compacta'
Nandina domestica 'Gulf Stream'
Nephrolepsis species
Phormium species
Pittosporum tobira
Podocarpus gracilior
Podocarpus henkelii
Podocarpus macrophyllus 'Maki'
Pyracantha koidzumii 'Santa Cruz'
Rhaphiolepsis indica 'Clara'
Rosa flora carpet
Rosa 'Iceberg'
Rosmarinus officinalis 'Arp'
Rosmarinus 'Tuscan Blue'
Russellia equisetiformis
Salvia leucantha 'Midnight'
Salvia leucantha 'Santa Barbara'
Simmondsia chinensis
Solanum rantonnetii 'Royal Robe'
Stachys byzantina
Tecoma Stans 'Sierra Apricot'
Viburnum suspensum
Viburnum tinus
Westringia fruiticosa
Agapanthus africanus
Baccharis pilularis 'Pigeon Point'
Dianella tasmanica
Dietes irioides 'John Runner'
Hemerocallis hybrids
Lantana camara 'Dwarf Yellow'
Myoporum parvifolium 'Putah Creek'
Pelargonium peltatum
Pyracantha coccinea 'Lowboy'
Rosmarinus officinalis 'Huntington Carpet'
Trachelospermum jasminoides
Tulbaghia violacea
Carex praegracillis
Festuca mairei
Festuca rubra 'Molate Blue'
Juncus pallidus
Leymus condensatus
Liriope graminifolia
Liriope muscari variegata
Miscanthus sinensis 'Morning Light'
Miscanthus transmorrisonensis
Muhlenbergia capillaris 'Regal Mist'
Muhlenbergia dumosa
Muhlenbergia lindheimeri
Muhlengergia rigens
Pennisetum mesiacum
Pennisetum spathiolatum
Sesleria autumnalis
Sesleria heufleriana
Seslaria nitida
Thysanolaena maxima
Tripsicum dactyloides
Vetiveria zizanioides

Source: BGB Design Group, 2019

Plant Palette

Figure 8b

Ranch Hills Community

Section 3: Environmental Evaluation

In evaluating the potential impacts associated with the Project, the MND identifies a number of regulatory requirements and standard conditions that will serve to avoid or minimize impacts.

The regulatory requirements are based on local, State, or federal regulations or laws that are frequently required independently of CEQA review and also serve to offset or prevent specific impacts. Typical regulatory requirements include compliance with the provisions of the California Building Code, South Coast Air Quality Management District Rules, local agency fees, etc. Additional requirements may be imposed on the Project by government agencies during the approval process, as appropriate.

The County of Orange has adopted a set of Standard Conditions. These are conditions frequently required independently of CEQA review that serve to offset or prevent specific impacts; however, there is not a formally adopted regulation (e.g., ordinance). When an adopted Orange County Standard Condition is identified, the number of the condition is listed in parentheses. Adherence to these conditions will be verified or applied during the development review and/or ministerial permit processes (e.g. building permit).

The regulatory requirements and County Standard Conditions are not unique to the Project. They have been identified at the beginning of each topical area to facilitate the reader's understanding of the established requirements applicable to the Project.

Where a potentially significant environmental effect has been identified and is not reduced to a level considered less than significant through the application of a regulatory requirement or standard conditions of approval, Project-specific mitigation measures have been identified.

The Regulatory Requirements, Standard Conditions, and Mitigation Measures are summarized in Table 35 of Section 4, Summary of Environmental Impacts, and will be tracked in the Mitigation Monitoring and Reporting Program (MMRP) that would be adopted in conjunction with the Project approval.[2]

[2] The California Public Resources Code Section 21081.6 (AB 3180) requires that a lead or responsible agency adopt a MMRP when approving or carrying out a project where an environmental document, either an EIR or a mitigated negative declaration, has identified measures to reduce potential adverse environmental impacts. The MMRP identifies the mitigation measure; the method by which the adopted measure will be implemented; the responsible party for verifying the measure has been satisfactorily completed; the method of verification; and the appropriate time or phase for the implementation of each mitigation measure. The MMRP is formally adopted by the Board of Supervisors in conjunction with the approval of the MND. In addition to the mitigation measures, this MMRP has incorporated the County Standard Conditions that are applicable to the Project.

3.1 Aesthetics

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

Introduction

This section evaluates potential impacts to Aesthetics that could result from Project implementation. Analysis in this section is based on the field reconnaissance, review of site photographs, and information sources identified in this section. The following County Standard Condition would be applicable to the Project and has been incorporated into the Project analysis. Responses to the impact questions listed above are provided below.

County Standard Condition

The following County Standard Condition would applicable to the Project:

SC AES-1 A. Prior to issuance of any building permit, the applicant shall demonstrate that all exterior lighting has been designed and located so that all direct rays are confined to the property in a manner meeting the approval of the Manager, Building and Safety Permit Services.

B. Prior to the approval of final inspection, applicant shall provide a letter from the electrical engineer, licensed landscape architect, or licensed professional designer, that a field test has been performed after dark and the light rays are confined to the premises. The letter shall be submitted to the Manager, Inspection for review and approval. (County Condition of Approval LG01)

SC AES-2 Landscaping for the project shall be designed to comply with the County's Water Efficient Landscape Ordinance (Ord. No. 16-002) and with the Guidelines for Implementation of the Water Efficient Landscape Ordinance.

A. Prior to the issuance of precise grading permits, the applicant shall submit a detailed landscape plan for the project area which shall be approved by the Manager, Building and Safety in consultation with the Manager, OC Development Services. The plan shall be certified by a landscape design professional, licensed landscape architect or a licensed landscape contractor, as required, as taking into account approved preliminary landscape plan (if any), County Standard Plans for landscape areas, adopted plant palette guides, applicable scenic and specific plan requirements, and water conservation measures contained in the County of Orange Landscape Code (Ord. No. 16-002).

B. Prior to the approval of final inspection, applicant shall install said landscaping and irrigation system and shall have a landscape design professional, licensed landscape architect or licensed landscape contractor, certify that it was installed in accordance with the approved plan.

C. Prior to the approval of final inspection, the applicant shall furnish said installation certification, including an irrigation management report for each landscape irrigation system, and any other implementation report determined applicable, to the Manager, Building and Safety. (County Standard Condition LA02)

Response to Impact Question a): Less than Significant Impact. According to the Open Space Component of the County of Orange General Plan Resources Element, open space within the County is a valuable resource and includes enhancing and protecting scenic vistas (County of Orange 2005a). The General Plan does include sites of specifically designated scenic vista points and provides goals and objectives to manage the County's landform resources. These landform resources, defined by the General Plan as "distinctive natural topographic features," are considered natural and aesthetic resources within the County. The Project site is located within a suburban area, on the developed site of the existing Tustin Hills Racquet Club, surrounded by residential development on similar elevation. As such, no scenic vista would be impacted, as there is no designated scenic vistas or significant landforms on the site and surrounding areas, as previously described. As discussed above and shown in the General Plan, the site and the surroundings are not designated resources that would be affected by the proposed development.

Per the Resources Element of the General Plan, *"…the preservation of scenic vantage points (visual access) has been limited to a few turnouts, along Ortega Highway, Chapman Avenue, and Santiago Canyon Road, and parks on the coastal bluff at San Clemente and Corona Del Mar State Beach Parks, Dana Point, and Laguna Beach.*" No landform resource views are provided by the site. Therefore, the Project would not have a substantial adverse effect on a scenic vista and impacts would be less than significant. No mitigation measures are required.

Response to Impact Question b): No Impact. Based on a review of the California Department of Transportation, California Scenic Highway Mapping System, the Project site is not situated within a designated state scenic highway (Caltrans, 2011). The nearest designated state scenic highway is SR 91 (Riverside Freeway), located approximately 7.5 miles to the north. Therefore, the Project would have no impact related to scenic resources within a state scenic highway and no significant impacts would occur. No mitigations are required.

Response to Impact Question c): Less than Significant Impact. The Project site is located in a highly developed, suburbanized area of the County and is surrounded by residential neighborhoods. The following analysis addresses potential visual impacts associated with the proposed development and potential effect on publicly available views from the surrounding suburbanized areas. The question that must be answered in response to the CEQA IS checklist questions above is whether the Proposed Project will affect the environment of persons in general, not if the Project would affect views of particular persons. Specifically, obstruction of a few private views in a project's immediate vicinity is not generally regarded as a significant environmental impact.

The following analysis addresses potential short-term and long-term visual impacts associated with the proposed development and potential effect on publicly available views from the surrounding areas.

Short-Term Construction

Construction of the Project has the potential to impact the visual quality of the Project area by introducing construction activities and equipment; however, these potential impacts would be temporary. The Project demolition, grading, and infrastructure installation would be completed in a single phase (8 months), followed by construction of the proposed residential units in three phases, which is anticipated to take approximately 18 months to complete. During construction, the appearance of the Project site would be altered through the removal of existing structures, paving, and landscaping. Construction activities would generally be confined to the Project site and would including site preparation, grading, and the staging of construction equipment and materials. There would be limited construction within public right-of-way near the intersection of Simon Ranch Road and Pavillion Drive to allow for utility connections. Construction activities would be visible from various public and private vantage points surrounding the Project site. Pedestrians and motorists traveling on Pavillion Drive and Simon Ranch Road would have direct views of the construction activities; however, these views would be temporary and short in duration. Surrounding residential units would also have various views of the site during construction, even though those views are not considered public views, and as such they are not protected. The views would be most direct for the eight existing residences adjacent to the site on the north and west, which are at a slightly higher elevation than the Project site. Although the view of the construction activities from residential units may be considered adverse, it should be noted that private views are not protected and for purposes of this CEQA analysis would not be considered a significant impact. To the extent feasible, public views of construction-related activities, materials, waste, and staging would be reduced through the installation of temporary construction screening fencing surrounding the Project site perimeter.

However, given the elevation difference between the surrounding units and the site, some private views will be of construction activities. Given the temporary nature of construction activities and that private views are not protected, visual impacts resulting from construction activities would be less than significant and no mitigation is required.

Long-Term Occupancy

Long-term, the Project would result in a change in the visual character of the site as it transitions from the existing commercial racquet club use to residential uses. The Project would include a variety of walls and fences, which would surround much of the development at varied heights. The primary uses for fences within the Project site would be at the main entrance to the development and to delineate common and private property as well as neighboring property boundaries. Fence design would be a combination of decorative, natural wood with concrete block where necessary as required by the County's Code of Ordinance, Section 7-9-132. To soften the appearance of the retaining walls, plants would be added adjacent to the walls. The conceptual site plan is depicted in Figure 7 and exterior concepts are provided in Figures 5a and 5b. Figures 9a through 9e provides ground-view photographs that demonstrate the existing visual character of the Project site as seen from its surroundings. It should be noted that the Project site is not open to public view from the northwest, east and southeast, as those views are limited by the existing single-family residences and consist of private views from Outlook Lane, Racquet Hill, and Willard Avenue. The following photographs in Figures 9a through 9e depict public views from Pavillion Drive to the northwest, northeast, and southeast.

Views 1 through 2 on Figure 9a are taken from the Pavillion Drive and depict the access point of the property looking out onto the adjacent single-family residential to southwest of the Project site. Improvements at the entrance point on Pavillion Drive would include planting of trees, pavement, and a tree-lined median separating the entrance and exit into the site.

Views 3 through 4 on Figure 9b, are taken from Pavillion Drive looking southeast. These views depict the adjacent single-family residential bordering the Project site to the southwest and across Pavillion. Palm trees located on the Project site are visible in the distance partially obscuring the distant mountain views as well as single-family residences lining Pavillion Drive.[3] The Project would incorporate landscaping in the common and recreation areas. The majority of landscaping currently provided on site, including mature palm trees, pine trees, and pepper trees would be removed with implementation of the proposed Project. This would result in changes to the views from surrounding uses until the new landscaping matures. In the near-term, this would provide some improved mid-range public views of the surrounding mountains from the public right-of way along Pavillion Drive to the southeast.

Views 5 through 8 on Figures 9c and 9d are taken on Pavillion Drive looking into the northeast into the site. The views include the access point and existing access gate into the Project site. The visual prominence includes views of the existing parking lot and facilities lined with palm trees and vegetation along with the single-family residences adjacent to the northwest and southwest border of the Project site. Views of mature palm trees from the southern portion of the site can be seen in the background with view of the Santa Ana Mountains in the distant background. View 8 is taken from Pavillion Drive looking northeast into the Project site. This view depicts single-family residences located southeast of the Project site and mature palm trees lining the southern portion of the Project site. As previously discussed, the

[3] The requirement that the landscape plan not incorporate invasive species is included in Section 3.4, Biological Resources.

landscaping currently provided on site, including mature palm trees, would be removed with implementation of the proposed Project and would partially clear public and private views of the surrounding mountains. In addition, as shown in Figure 9c through 9d, the elevation differences between the Project site and adjacent residences would provide a natural buffer, which would partially obscure views of the Project from the public right-of-way along Pavillion Drive and private views from the residences to the west/southwest.

Views 9 through 10 on Figure 9e are from vantage points on Pavillion Drive which depict the Project site from Pavillion Drive north of the entrance point and shows views of the adjacent single-family residence that border the southwest in the forefront. The background depicts mature palm trees on the Project site and other vegetation surrounding the project border. In the far distance you can see a view of the surrounding single-family residences on the Santa Ana Mountains. As shown in Figure 9e, the elevation differences between the Project site and adjacent residences would provide a natural buffer that would block views of the Project from the public right-of-way along Pavillion Drive and private views from the residences to the west/southwest.

In addition, the Project is not located within a County designated landscape or viewscape corridor (County of Orange 2005b). The nearest viewscape corridor is located 1.5 miles north of the Project site along Newport Avenue.

The Project would not substantially degrade the visual character or quality public views of the Project site or the surrounding area during construction or operation, or conflict with applicable zoning and regulations governing scenic quality. Therefore, impacts would be considered less than significant once developed and no mitigation is required.

Response to Impact Question d): Less than Significant Impact. The existing racquet club use generates nighttime lighting because events, such as weddings, are held in the evening hours.[4] In addition, the tennis courts are lit until 10 p.m. and safety lighting is provided throughout the site and in the surface parking lot. Consistent with the County's Noise Control Ordinance, all construction activities would be limited to 7:00 a.m. and 8:00 p.m. on weekdays and Saturdays. Therefore, some nighttime construction, and associated lighting, may occur due to seasonal changes to the length of day- and nighttime hours. However, due to the temporary and short-term nature of construction activities, lighting during construction would not result in significant impacts.

Once completed, the new homes will produce some nighttime lighting on the site; however, the intensity of the lighting would be generally low, consistent with residential uses. The low-level landscape and LED site lighting would have considerably less impact on the surrounding neighborhood than the existing high intensity incandescent lighting used to illuminate the tennis courts. Additionally, it should be noted that the baseline also including lighting from the evening events at the banquet facility, which would no longer occur as part of the Project. Street lighting is only proposed at intersections and shielding would confine rays to the Project site boundaries. Additionally, the County Standard Condition LG01 (provided above) would apply to the Project. Given that the Project site is within a suburbanized location, light and glare produced by the Project would be comparable to the amount of light and glare generated by the existing residential uses surrounding the Project site and would not be substantially noticeable over existing conditions.

[4] Events must conclude by 10:00 p.m.

Therefore, the amount of lighting produced by the Project would not substantially adversely affect day or nighttime views in the area. Impacts would be less than significant, and no mitigation is required.

Mitigation Program

No significant aesthetic impacts were identified; therefore, no mitigation beyond implementation of the County Standard Condition is required.

References

California Department of Transportation (Caltrans). 2011 (September 7, last updated). Scenic Highways. Sacramento, CA. http://www.dot.ca.gov/hq/LandArch/16_livability/scenic_highways/index.htm

Orange, County of. 2005a (adopted). Resources Element, Chapter VI of the County of Orange General Plan. Orange, CA: the County. https://www.ocgov.com/civicax/filebank/blobdload.aspx?blobid=40235

Orange, County of. 2005b (adopted). Scenic Highway Plan. Orange, CA: the County. https://www.ocgov.com/civicax/filebank/blobdload.aspx?blobid=8588

View 1

View 2

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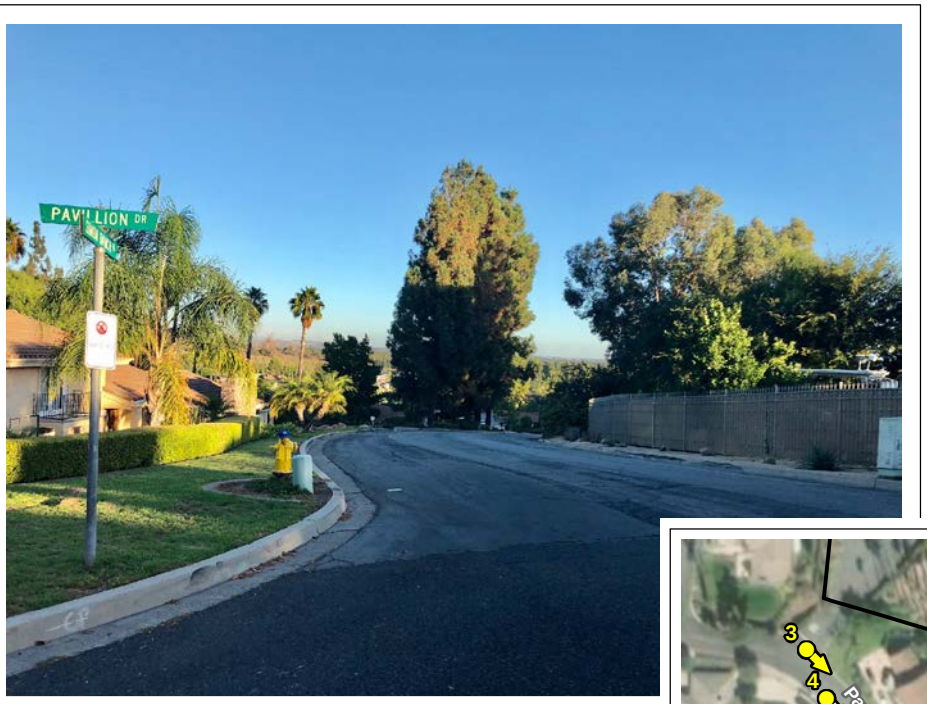
Site Photographs

Figure 9a

Ranch Hills Community



View 3

View 4

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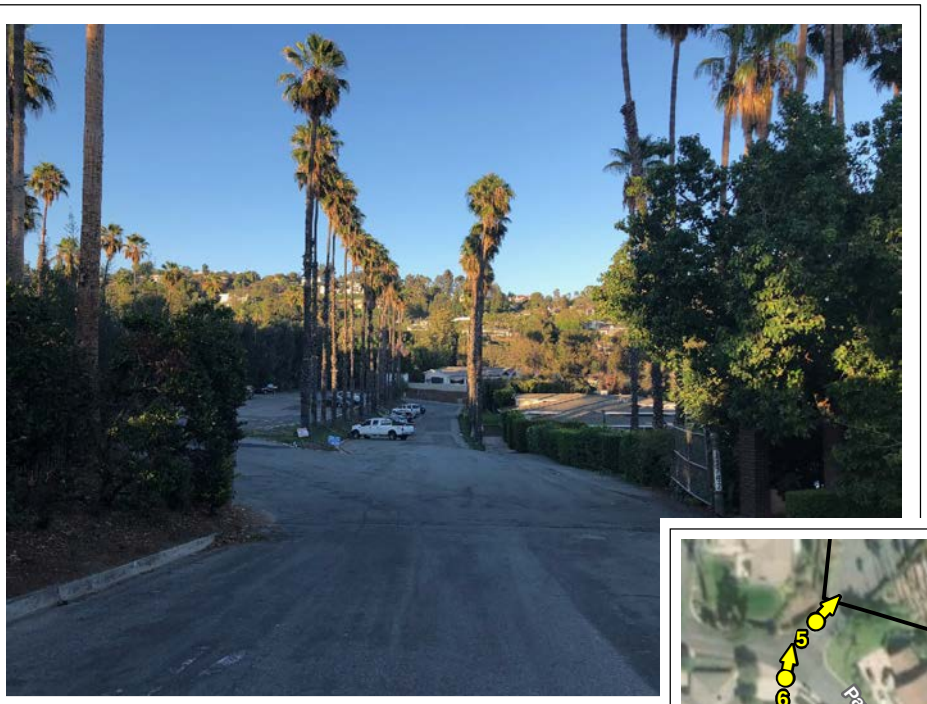
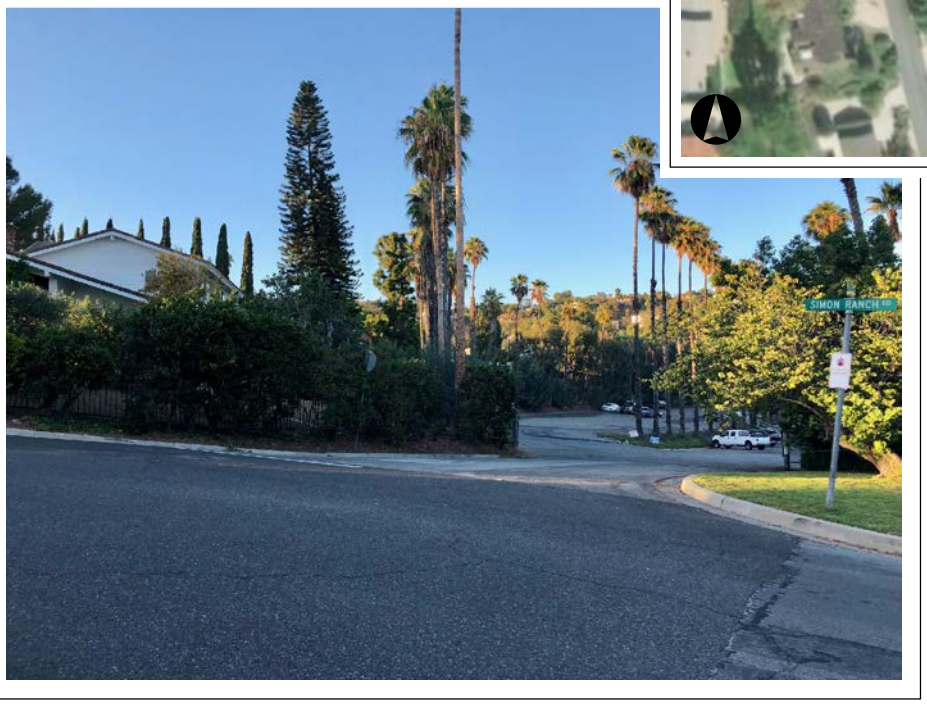
Site Photographs

Figure 9b

Ranch Hills Community



View 5



View 6

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Site Photographs

Figure 9c

Ranch Hills Community

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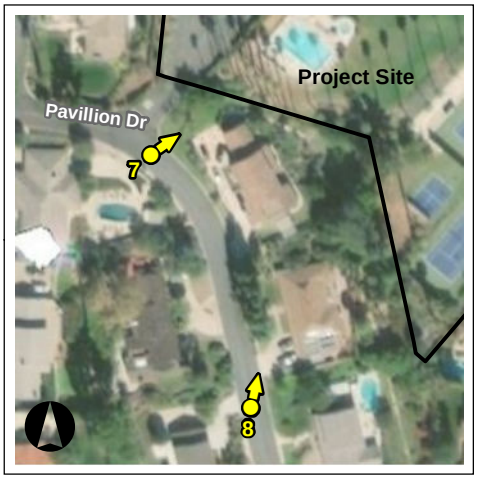
View 7



View 8

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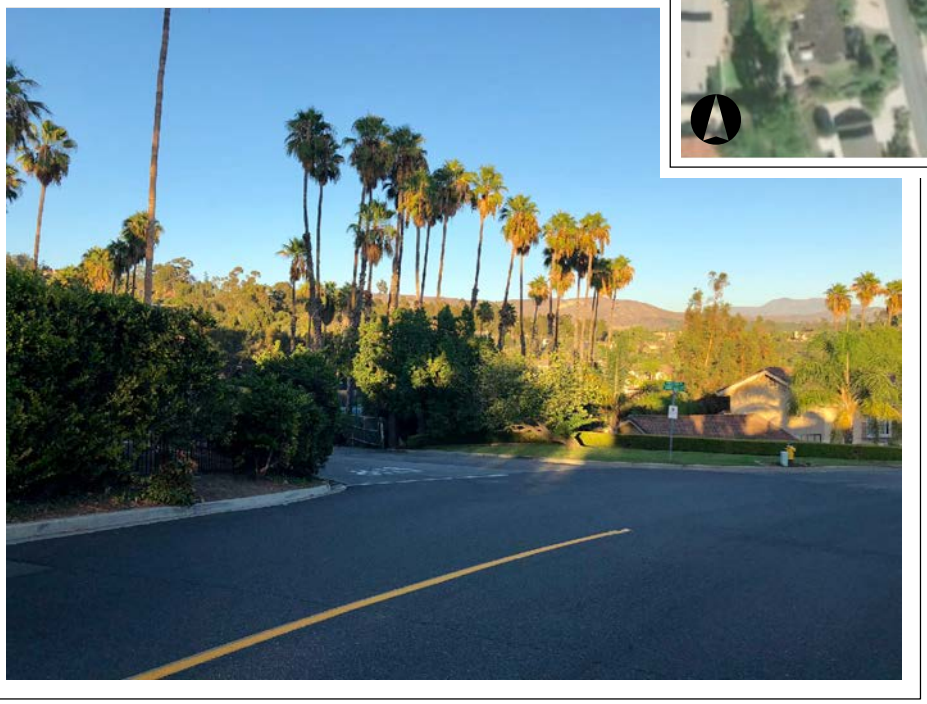
Site Photographs

Figure 9d

Ranch Hills Community

View 9



View 10

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Site Photographs

Figure 9e

Ranch Hills Community

3.2 Agriculture and Forestry Resources

Would the project:	Potentially Significant Impact	Less than Significant With Mitigation Incorporated	Less than Significant Impact	No Impact
a) Convert Prime Farmland, Unique Farmland, or Farmland of Statewide Importance (Farmland), as shown on the maps prepared pursuant to the Farmland Mapping and Monitoring Program of the California Resources Agency, to non-agricultural use?	☐	☐	☐	☒
b) Conflict with existing zoning for agricultural use, or a Williamson Act contract?	☐	☐	☒	☐
c) Conflict with existing zoning for, or cause rezoning of, forest land (as defined in Public Resources Code 12220 (g)), timberland (as defined by Public Resources Code Section 4526), or timberland zoned Timberland Production (as defined by Government Code Section 51004)(g))?	☐	☐	☐	☒
d) Result in the loss of forest land or conversion of forest land to non-forest use?	☐	☐	☐	☒
e) Involve other changes in the existing environment which, due to their location or nature, could result in conversion of Farmland to non-agricultural use or forest land to non-forest use?	☐	☐	☐	☒

Introduction

In determining whether impacts to agricultural resources are significant environmental effects, lead agencies may refer to the California Agricultural Land Evaluation and Site Assessment Model (1997) prepared by the California Dept. of Conservation as an optional model to use in assessing impacts on agriculture and farmland. In determining whether impacts to forest resources, including timberland, are significant environmental effects, lead agencies may refer to information compiled by the California Department of Forestry and Fire Protection regarding the state's inventory of forest land, including the

Forest and Range Assessment Project and the Forest Legacy Assessment project; and forest carbon measurement methodology provided in Forest Protocols adopted by the California Air Resources Board.

Response to Impact Question a): No Impact. According to the California Important Farmland Finder, California Department of Conservation (DOC) Farmland Mapping and Monitoring Program (FMMP) the Project site is designated as Urban and Built-Up Land. There are no agricultural uses on site or in the Project vicinity. The site is located in a suburban setting and provides no agricultural or forest land resources. The site does not contain any Important Farmland based on the 2016 Farmland Mapping and Monitoring Program (FMMP 2018) and is not included in a Williamson Act contract. The 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 non-agricultural use (FMMP 2018; County of Orange 2005).

Response to Impact Question b): Less than Significant Impact. Although the Project site is not designated by the DOC FMMP as Prime Farmland, Unique Farmland, or Farmland of Statewide Importance (LCA 2016), it is zoned by the County as A1 "General Agricultural" District. The district is defined as zoning for agriculture, outdoor recreation, and other low intensity uses. The County General Plan Land Use Element identifies that agricultural zoning is not an indication of a long-term commitment to specific uses because the General Plan may designate for more intensive urban uses in the future. The Project site's General Plan land use designation is Suburban Residential (1B), which allows a wide range of housing types, from estates on large lots to attached dwelling units (townhomes, condominiums, and clustered arrangements). The Project will require a zone change to make the zoning consistent with the proposed use. However, even though the Project would convert land zoned for agriculture, based on a review of historic aerials the site was last used for agriculture in 1958 or for over approximately 60 years (refer to Appendix B of the Phase I Environmental Site Assessment (Appendix F-2) included as an attachment to this ISMND). Thus, the proposed Project would not reduce the actual amount of land used for agriculture since the site is currently developed as the Tustin Hills Racquet Club and does not involve active agricultural uses. Therefore, impacts would be less than significant. No mitigation is required.

Response to Impact Question c): **No Impact.** The site is zoned as A1 "General Agricultural" District, but is not zoned for forestland, timberland, or timberland zoned Timberland Production. Therefore, the Project would not conflict with existing zoning for, or cause rezoning of, forestland, timberland, or timberland zoned Timberland Production, and no impacts would result.

Response to Impact Question d): No Impact. The Project site is currently developed as the Tustin Hills Racquet Club and does not involve agricultural, timber, or forestland resources. The proposed Project would not result in the loss of forestland or convert forestland to non-forest use, and no impacts would result.

Response to Impact Question e): No Impact. The Project site has not been actively farmed for over 60 years (at a minimum) and the surrounding properties are not engaged in or suitable for active agricultural production. In addition, neither the Project site, nor the surrounding properties, are under a Williamson Act contract (LCA 2016). The Project site and surrounding properties are also not suitable for forest uses, as the area is fully developed, and there are no existing forest resources in the general area, conversion of which to non-forest use would be considered a significant impact. Therefore, the Project would not result in a change in the environment that would not result in impacts related to the conversion of Farmland to non-agricultural use or forestland to non-forest use, and no impacts would result. No mitigation is required.

Mitigation Program

No impacts to agricultural and forest resources were identified; therefore, no mitigation is required.

References

California Department of Conservation, Farmland Mapping and Monitoring Program (FMMP). 2018 (September, published). Orange County Important Farmland 2016. Sacramento, CA: FMMP. http://www.conservation.ca.gov/dlrp/fmmp/Pages/Orange.aspx

California Department of Conservation, The Land Conservation Act (LCA). 2016. Data and Maps. Land Conservation Act Maps (PDF). Sacramento, CA. http://www.conservation.ca.gov/dlrp/wa/Pages/stats_reports.aspx

NETRonline. 2019 (May 1). *Historic Aerials.* https://www.historicaerials.com/viewer.

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3.3 Air Quality

Would the project:	Potentially Significant Impact	Less than Significant With Mitigation Incorporated	Less than Significant Impact	No Impact
a) Conflict with or obstruct implementation of the applicable air quality plan?	☐	☐	☒	☐
b) Result in a cumulatively considerable net increase of any criteria pollutant for which the project region is non-attainment under an applicable federal or state ambient air quality standard?	☐	☐	☒	☐
c) Expose sensitive receptors to substantial pollutant concentrations?	☐	☐	☒	☐
d) Result in other emissions (such as those leading to odors) adversely affecting a substantial number of people?	☐	☐	☐	☒

Introduction

This section evaluates potential impacts to Air Quality that could result from Project implementation. Analysis in this section is based on the existing environmental setting conditions provided below, and information sources identified in this section. Responses to the impact questions listed above are provided below.

The Project site is in the South Coast Air Basin and under the jurisdiction of the South Coast Air Quality Management (SCAQMD). The SCAQMD's Air Quality Analysis Handbook (CEQA Handbook) provides significance thresholds for both construction and operation of projects within the SCAQMD's jurisdictional boundaries (SCAQMD 2017). The SCAQMD recommends that projects be evaluated in terms of the quantitative thresholds established to assess both the regional and localized impacts of project-related air pollutant emissions. The County of Orange uses the current SCAQMD thresholds to determine whether a proposed project would have a significant impact. These SCAQMD thresholds are identified in Table 4.

Table 4: South Coast Air Quality Management District Air Quality Significance Thresholds

Mass Daily Thresholds (lbs/day)		
Pollutant	**Construction**	**Operation**
VOC	75	55
NOx	100	55
CO	550	550
PM10	150	150
PM2.5	55	55
Sox	150	150
Lead	3	3

lbs/day: pounds per day; VOC: volatile organic compound; NOx: nitrogen oxides; CO: carbon monoxide; PM10: respirable particulate matter 10 microns or less in diameter; PM2.5: fine particulate matter 2.5 microns or less in diameter; SOx: sulfur oxides.

Source: SCAQMD 2019.

Short-Term Construction

Relevant elements of the proposed Project related to the analysis of potential air quality construction impacts include (1) demolition of on-site tennis courts, buildings, asphalt, and pavement, which would require export of demolition and construction debris; (2) site preparation activities to remove vegetation from the site; (3) on-site grading activities, which are expected to be balanced on-site; (4) trenching activities; (5) construction of 37 units; (6) architectural coating of dwelling units; and (7) paving activities for asphalt and pavement. Construction of the Project is anticipated to take approximately 2 years and 2 months.

Long-Term Operations

Operational emissions are generally comprised of area, energy, and mobile source emissions. The emissions associated with long-term operation of the Project are discussed further under Response to Impact Question (a).

Regulatory Requirement

The following two regulatory requirements would be applicable to the Project and have been assumed in the air modeling conducted for the proposed Project.

RR AQ-1 During construction, the developer shall comply with South Coast Air Quality Management District ("SCAQMD") Rules 402 and 403, in order to minimize short-term emissions of dust and particulates. SCAQMD Rule 402 requires that air pollutant emissions not be a nuisance off site. SCAQMD Rule 403 requires that fugitive dust be controlled with the best available control measures so that the presence of such dust does not remain visible in the atmosphere beyond the property line of the emission source. This requirement shall be included as "Notes" on the contractor specifications. Table 1 of Rule 403 prescribes the Best Available Control Measures that are applicable to all construction projects. The developer shall provide

the Manager of Building & Safety, or designee, with an SCAQMD-approved Dust Control Plan or other sufficient proof of compliance with Rule 403, prior to issuance of a grading permit.

RR AQ-2 Architectural coatings shall be selected so that the volatile organic compound ("VOC") content of the coatings is compliant with SCAQMD Rule 1113. This requirement shall be included as notes on the contractor specifications and shall be reviewed by the Manager of Building & Safety, or designee, for compliance with this requirement prior to issuance of a building permit.

Response to Impact Question a): Less Than Significant Impact. Pursuant to the SCAQMD's CEQA Handbook, there are two key indicators of AQMP consistency:

1. Whether the Project will result in an increase in the frequency or severity of existing air quality violations or cause or contribute to new violations or delay timely attainment of air quality standards or the interim emissions reductions in the AQMP.
2. Whether the Project will exceed the assumptions in the AQMP based on the year of Project buildout.

With respect to the first criterion, based on the air quality modeling analysis conducted for the Project (see the discussion provided below), construction and operation of the Project would not exceed the SCAQMD CEQA thresholds of significance and consequently would not result in an increase in the frequency or severity of existing air quality violations nor cause or contribute to new violations, or delay timely attainment of air quality standards or the interim emissions reductions in the air quality management plan (AQMP).

With respect to the second criterion, the Project was assessed as to whether it would exceed the assumptions in the AQMP. The SCAQMD's current air quality planning document is the *2016 Air Quality Management Plan* (2016 AQMP). The 2016 AQMP is a regional and multi-agency effort among the SCAQMD, the California Air Resources Board (CARB), the Southern California Association of Governments (SCAG), and the U.S. Environmental Protection Agency (USEPA). The 2016 AQMP includes an analysis of emissions, meteorology, atmospheric chemistry, regional growth projections, and the impact of existing control measures. The purpose of the 2016 AQMP is to set forth a comprehensive program that would promote reductions in criteria pollutants, greenhouse gases, and toxic risk and efficiencies in energy use, transportation, and goods movement. The 2016 AQMP incorporates the latest scientific and technical information and planning assumptions, including the 2016-2040 Regional Transportation Plan/Sustainable Communities Strategy (RTP/SCS); updated emission inventory methods for various source categories; and SCAG's latest growth forecasts (SCAQMD 2017). The 2016 AQMP includes strategies and measures necessary to meet the National Ambient Air Quality Standards (NAAQS).

A project with daily emission rates below the SCAQMD's established air quality significance thresholds (shown in Table 4) would have a less than significant effect on regional air quality. Emissions of the proposed Project were estimated using the California Emissions Estimator Model (CalEEMod) version 2016.3.2 computer program (CAPCOA 2016). CalEEMod is designed to model construction and operational emissions for land development projects and allows for the input of project- and County-specific information. The CalEEMod input for construction emissions was based on the Project's construction assumptions and default assumptions derived from CalEEMod. Total Project construction is estimated to take approximately 2 years and 2 months. Grading and infrastructure installation would

occur in a single phase while the proposed residential units would be constructed in three phases with approximately 12 units completed in each phase of development. Although no road closures would occur during construction phase of the Project, a short-term lane closure would be required. The CalEEMod output, which includes the construction assumptions, can be found in Appendix A. Construction impacts would occur within the Project site boundaries. Construction staging would be located on the site. The input for operational emissions was based on the vehicle trip generation rate provided in the traffic impact analysis and the building area.

Construction Emissions

Air pollutant emissions would occur from construction equipment exhaust; fugitive dust from demolition and site grading; exhaust and particulate emissions from trucks hauling demolition and construction debris, materials to and from the Project site and from vehicles driven to and from the Project site by construction workers; and volatile organic compounds (VOCs) from painting and asphalt paving operations.

Mass Emissions Thresholds – Maximum Daily Regional Emissions

Table 5 presents the estimated maximum daily emissions during construction of the proposed Project and compares the estimated emissions with the SCAQMD's daily mass emission thresholds. As shown in Table 5, Project construction mass daily emissions would be less than the SCAQMD's thresholds for all criteria air pollutants. As stated above, the air quality analysis would be required to follow RR AQ-1 (SCAQMD Rules 402 and 403 for dust and nuisance) and Rule 1113 (for architectural coatings). As such, emissions from construction activities would not violate any air quality standard or substantially contribute to an existing or projected air quality violation. Impacts would be less than significant, and no additional mitigation is required.

Table 5: Estimated Maximum Daily Construction Emissions

Year	Emissions (lbs/day)					
	VOC	**NOx**	**CO**	**SOx**	**PM10**	**PM2.5**
2020	3	37	23	<1	4	3
2021	27	25	19	<1	4	2
2022	27	17	18	<1	2	1
Maximum Emissions	**27**	**37**	**23**	**<1**	**4**	**3**
SCAQMD Thresholds (Table 4)	*75*	*100*	*550*	*150*	*150*	*55*
Exceeds SCAQMD Thresholds?	**No**	**No**	**No**	**No**	**No**	**No**

lbs/day: pounds per day; VOC: volatile organic compound; NOx: nitrogen oxides; CO: carbon monoxide; SOx: sulfur oxides; PM10: respirable particulate matter 10 microns or less in diameter; PM2.5: fine particulate matter 2.5 microns or less in diameter; SCAQMD: South Coast Air Quality Management District.

Source: SCAQMD 2019 (thresholds); see Appendix A for CalEEMod model outputs.

Localized Significance Thresholds/Ambient Air Quality

In addition to the mass daily emissions thresholds established by the SCAQMD, short-term local impacts to nearby sensitive receptors from on-site emissions of nitrogen dioxide (NO_2), carbon monoxide (CO), respirable particulate matter 10 microns or less in diameter (PM10); and fine particulate matter 2.5

microns or less in diameter (PM2.5) are examined based on SCAQMD localized significance threshold (LST) methodology. To assess local air quality impacts for development projects without complex dispersion modeling, the SCAQMD developed screening (lookup) tables to assist lead agencies in evaluating impacts.

The LST method is recommended to be limited to projects that are five acres or less. For the purposes of an LST analysis, the SCAQMD considers receptors where it is possible that an individual could remain for 1 hour for NO_2 and CO exposure and 24 hours for PM10 and PM2.5 exposure. The emissions limits in the lookup tables are based on the SCAQMD's Ambient Air Quality Standards (SCAQMD 2016). The closest receptors to the Project site are residences adjacent to all sides of the Project's boundary. The emissions thresholds are for receptors within 25 meters (82 feet) of the Project site. It should be noted that the thresholds for receptors farther away from the site would necessarily be higher and the Project emissions would represent a smaller fraction of those thresholds.

Table 6 shows the maximum daily on-site emissions for construction activities compared with the SCAQMD LSTs with receptors within 25 meters. The Project site is approximately 5.88 acres in area; the thresholds shown are from the lookup tables for sites that are 1 acre. The Project's maximum daily on-site emissions would occur during the demolition phase for NOx and CO, and during the grading phase for PM10 and PM2.5. As shown in Table 6, the local emissions from the Project would be less than the thresholds, and no significant impacts would result. No mitigation is required.

Table 6: Localized Significance Threshold Emissions

Emissions and Thresholds	Emissions (lbs/day)			
	NOx	**CO**	**PM10**	**PM2.5**
Project maximum daily on-site emissions	33.2	21.8	3.8	2.5
Localized Significance Threshold	**81**	**485**	**4**	**3**
Exceeds threshold?	**No**	**No**	**No**	**No**

lbs/day: pounds per day; NOx: nitrogen oxides; CO: carbon monoxide; PM10: respirable particulate matter 10 microns or less in diameter; PM2.5: fine particulate matter 2.5 microns or less in diameter.

Note: Data is for SCAQMD Source Receptor Area 17, Central Orange County.

Source: SCAQMD 2009 (thresholds); see Appendix A for CalEEMod model outputs.

Operational Emissions

Operational emissions are comprised of area, energy, and mobile source emissions. The principal area source of VOC emissions associated with the Project would result from the use of consumer products; the major area source of CO emissions would be landscaping equipment. Mobile source emissions are based on estimated Project-related trip generation forecasts, as contained in the Project traffic impact analysis (provided in Appendix I-1). The proposed Project would generate 205 fewer Average Daily Trips (ADT) than the existing racquet club uses, which include 11 tennis courts and a banquet/special events facility. The Project uses would generate 349 ADTs, whereas the existing racquet club generates 554 ADTs (RK Engineering Group, Inc. 2020). Estimated peak daily operational emissions are shown in Table 7.

Table 7: Net Daily Operational Emissions

Source	Emissions (lbs/day)					
	VOC	**NOx**	**CO**	**SOx**	**PM10**	**PM2.5**
Area sources	2	1	3	<1	<1	<1
Energy sources	<1	<1	<1	<1	<1	<1
Mobile sources*	0	0	0	0	0	0
Total Operational Emissions**	**2**	**1**	**3**	**<1**	**<1**	**<1**
SCAQMD Significance Thresholds (Table 4)	*55*	*55*	*550*	*150*	*150*	*55*
Significant Impact?	**No**	**No**	**No**	**No**	**No**	**No**

lbs/day: pounds per day; VOC: volatile organic compounds; NOx: nitrogen oxides; CO: carbon monoxide; SOx: sulfur oxides; PM10: respirable particulate matter 10 microns or less in diameter; PM2.5: fine particulate matter 2.5 microns or less in diameter; SCAQMD: South Coast Air Quality Management District.

* Due to the net reduction in trips as a result of the Project, there would be no net mobile emissions.

** Some totals do not add due to rounding.

Notes: SOx and lead emissions are not shown; these emissions would be negligible for the Project.
CalEEMod model data sheets are included in Appendix A.

As shown in Table 7, the Project's net operational emissions would be less than the SCAQMD CEQA significance thresholds for all criteria pollutants. Therefore, the Project's operational impact on regional emissions would be less than significant, and no mitigation is required.

During Project development, initial phases of the Project would be occupied while construction would continue in future phases. In accordance with recent SCAQMD recommendations, a calculation of combined construction and operational emissions is provided for information purposes (SCAQMD 2015). Project construction would occur in three phases. For purposes of modeling air quality emissions, Phase 1 is assumed to be operational by the 4th quarter of 2021, with construction of Phase 2 beginning in the 4th quarter of 2021 and Phase 3 starting in 2022. For purposes of providing a conservative air quality analysis, the maximum construction emissions from 2021 and 2022 (Phases 2 and 3) are combined with the emissions calculated for full build-out of the Project in 2022. These emissions are compared to the SCAQMD's operational thresholds in Table 8.

Table 8: Estimated Annual Mid-Project Combined Emissions (lbs/day)

Source	Emissions (lbs/day)					
	VOC	**NOx**	**CO**	**SOx**	**PM10**	**PM2.5**
Maximum Construction Emissions from 2021-2022 (Table 5)	27	25	19	<1	4	2
Full Build-out Operations (Net Emissions, Table 7)	2	1	3	<1	<1	<1
Combined Operations and Construction Emissions	**29**	**26**	**22**	**<1**	**4**	**3**
SCAQMD Operations Significance Thresholds (Table 4)	**55**	**55**	**550**	**150**	**150**	**55**
Exceeds Threshold	**No**	**No**	**No**	**No**	**No**	**No**

lbs/day: pounds per day; VOC: volatile organic compounds; NOx: nitrogen oxides; CO: carbon monoxide; SOx: sulfur oxides; PM10: respirable particulate matter with a diameter of 10 microns or less; PM2.5: fine particulate matter with a diameter of 2.5 microns or less.

Note: Totals may not add due to rounding.

Sources: SCAQMD 2019 (thresholds). Emissions calculations can be found in Appendix A.

As shown in Table 8, combined construction and operations emissions would not exceed the operational emissions thresholds established by the SCAQMD. The finding of less than significant impacts for the combined construction and operations phases are consistent with the finding of less than significant impacts for emissions occurring solely for the operations phase of the Project.

Operations Phase Localized Significance Thresholds

The SCAQMD has also developed LSTs to assess potential local impacts to nearby sensitive receptors from on-site emissions of NO_2, CO, PM10, and PM2.5 generated during the operations phase. The operations phase LST analysis was assessed at the closest receptors to the Project site, which represent residential uses adjacent to all sides of the Project boundary. The emissions thresholds are for receptors within 25 meters (82 feet) of the Project site; the thresholds for receptors farther away would be higher, and the Project emissions would be a smaller fraction of the thresholds.

Table 8 shows the maximum daily on-site emissions for operational activities compared with the SCAQMD LSTs with receptors within 25 meters. Per the SCAQMD's recommendation, the thresholds shown are from the lookup tables for a site that is 1 acre. As shown in Table 9, the local emissions from the Project would be less than the thresholds, and no significant impacts would result. No mitigation is required.

Table 9: Operations Phase Localized Significance Threshold Emissions

Emissions and Thresholds	Emissions (lbs./day)			
	NOx	CO	PM10	PM2.5
Project maximum daily on-site emissions				
Area	1	3	<1	<1
Energy	<1	<1	<1	<1
Mobile[1]	0	0	0	0
Total	**1**	**3**	**<1**	**<1**
Localized Significance Threshold	**81**	**485**	**1**	**1**
Exceed threshold?	**No**	**No**	**No**	**No**

lbs./day: pounds per day; NOx: nitrogen oxides; CO: carbon monoxide; PM10: respirable particulate matter 10 microns or less in diameter; PM2.5: fine particulate matter 2.5 microns or less in diameter;

Note: Data is for SCAQMD Source Receptor Area 17, Central Orange County

Source: SCAQMD 2009 (thresholds); see Appendix A for CalEEMod model outputs.

The AQMP is based on projections of energy usage and vehicle trips from land uses within the South Coast Air Basin (SoCAB). The Project site is currently developed as the Tustin Hills Racquet Club and is designated by the Orange County General Plan, Land Use Element Map (Amendment 14-02) as Suburban Residential (1B) Communities with 0.5 to 18 du/ac. As such, the proposed units with a density of 6.29 du/ac does not necessitate a change in the General Plan land use designation. The Project site is located on a site zoned as A1 "General Agricultural" District. The district is defined as zoning for agriculture, outdoor recreation, and other low intensity uses. Although consistent with the General Plan designation, based on the zoning, the proposed single-family duplex style units are not a permitted use. Thus, the Project proposes a Zoning Code amendment from the existing A1 zoning to the R2 (5000) District. However, the addition of 96 new residents from the proposed Project would be minimal (0.003 percent) when compared to the County of Orange 2017 population of 3,192,024 (see Section 3.14, Population and Housing). As such, the proposed Project would not measurably exceed growth assumptions in the AQMP. This impact would be less than significant, and no mitigation is required.

Response to Impact Question b): Less Than Significant Impact. As shown in Table 10, Attainment Status of Criteria Pollutants in the South Coast Air Basin, Orange County is a nonattainment area for ozone (O_3), PM10, and PM2.5. The Project would generate PM10, PM2.5, NO_2, and O_3 precursors (NOx and VOC) during short-term construction and long-term operations.

Table 10: Attainment Status of Criteria Pollutants in the South Coast Air Basin

Pollutant	State	Federal
O_3 (1 hour)	Nonattainment	No standard
O_3 (8 hour)		Nonattainment
PM10	Nonattainment	Attainment/Maintenance
PM2.5	Nonattainment	Nonattainment
CO	Attainment	Attainment/Maintenance
NO_2	Attainment	Attainment/Maintenance
SO_2	Attainment	Attainment
Lead	Attainment	Attainment/Nonattainment*
All others	Attainment/Unclassified	No standards

O_3: ozone; PM10: respirable particulate matter 10 microns or less in diameter; PM2.5: fine particulate matter 2.5 microns or less in diameter; CO: carbon monoxide; NO_2: nitrogen dioxide; SO_2: sulfur dioxide; SoCAB: South Coast Air Basin.

* Los Angeles County is classified nonattainment for lead; the remainder of the SoCAB is in attainment of the State and federal standards.

Source: SCAQMD 2016

Construction Activities

Construction activities associated with the proposed Project would result in less than significant construction-related regional and localized air quality impacts, as quantified above in Tables 5 and 6, respectively. Short-term cumulative impacts related to air quality could occur if construction of the proposed Project and other projects in the surrounding area were to occur simultaneously. In particular, with respect to local impacts, the consideration of cumulative construction particulate (PM10 and PM2.5) impacts is limited to cases when projects constructed simultaneously are within a few hundred yards of each other because of (1) the combination of the short range (distance) of particulate dispersion (especially when compared to gaseous pollutants) and (2) the SCAQMD's required dust-control measures, which further limit particulate dispersion from a Project site.

SCAQMD's policy with respect to cumulative impacts associated with the above referenced pollutants and their precursors is that impacts that would be directly less than significant would also be cumulatively less than significant (SCAQMD 2003). Therefore, local construction emissions would not be cumulatively considerable, and the impact would be less than significant; no additional mitigation would be required.

Operational Activities

As shown in Tables 7 through 9, operational emissions of VOC, NOx, CO, PM10, and PM2.5 would be below the SCAQMD CEQA significance thresholds. Therefore, the Project would not contribute to a cumulatively considerable net increase of a pollutant for which the SoCAB is in nonattainment. Emissions of nonattainment pollutants or their precursors would not be cumulatively considerable and would be less than significant; no additional mitigation would be required.

Response to Impact Question c): Less than Significant Impact. A significant impact may occur when a project would generate pollutant concentrations to a degree that would significantly affect sensitive receptors, which include populations that are more susceptible to the effects of air pollution than the

population at large. Exposure of sensitive receptors is addressed for the following situations: CO hotspots; criteria pollutants and toxic air contaminants (TACs), specifically diesel particulate matter (DPM) from on-site construction; exposure to off-site TAC emissions; and asbestos and lead-based paint during demolition. Operational, long-term TACs may be generated by some industrial land uses; commercial land uses (e.g., gas stations and dry cleaners); and diesel trucks on freeways. Residential land uses do not generate substantial quantities of TACs and are therefore not addressed in this IS/MND.

Carbon Monoxide Hotspot

A CO hotspot is an area of localized CO pollution caused by severe vehicle congestion on major roadways, typically near intersections. Project-related traffic would result in less trips than existing uses, so the Project would not result in a significant impact related to CO hotspots. Exposure of persons to CO hotspots is discussed on a Project level in response to Response to Impact Question (b) above. Therefore, the potential impacts associated with CO hotspots would be less than significant, and no mitigation is required.

Criteria Pollutants from On-Site Construction

Exposure of persons to NOx, CO, PM10, and PM2.5 emissions is discussed in Response to Impact Question (b) above. There would be no significant impacts, and no additional mitigation is required.

Toxic Air Contaminant Emissions from On-Site Construction

Construction activities would result in short-term, Project-generated emissions of DPM from the exhaust of off-road, heavy-duty diesel equipment used for site preparation (e.g., demolition, excavation, and grading); paving; building construction; and other miscellaneous activities. CARB identified DPM as a TAC in 1998. The dose to which receptors are exposed is the primary factor used to determine health risk. Dose is a function of the concentration of a substance or substances in the environment and the duration of exposure to the substance. Thus, the risks estimated for a maximally exposed individual (MEI) are higher if a fixed exposure occurs over a longer time period. According to the Office of Environmental Health Hazard Assessment, health risk assessments—which determine the exposure of sensitive receptors to TAC emissions—should be based on a 40-year exposure period; however, such assessments should be limited to the period/duration of activities associated with the Project.

There would be relatively few pieces of off-road, heavy-duty diesel equipment in operation, and the total construction period would be relatively short when compared to a 40-year exposure period. Combined with the highly dispersive properties of DPM and additional reductions in particulate emissions from newer construction equipment, as required by USEPA and CARB regulations, construction emissions of TACs would not expose sensitive receptors to substantial emissions of TACs. The impact would be less than significant, and no mitigation is required.

Exposure to Off-Site Toxic Air Contaminant Emissions

The CARB *Air Quality and Land Use Handbook: A Community Health Perspective* provides guidance concerning land use compatibility with TAC sources (CARB 2005). While not a law or adopted policy, the handbook offers advisory recommendations for siting sensitive receptors near uses associated with TACs (such as freeways and high-traffic roads, commercial distribution centers, rail yards, ports, refineries, dry cleaners, gasoline stations, and industrial facilities) to help minimize health risks for children and other sensitive populations.

Projects of concern for mobile sources of TACs are typically those located within 500 feet of the following types of facilities that emit significant quantities of DPM: urban roads with more than 100,000 vehicles per day; freeways or roads with a high heavy truck concentration; and/or near rail yards, ports, and/or distribution centers. The Project site is more than 500 feet from any freeway or major urban road.

With respect to proximity to emissions from railroad sources, CARB recommends avoiding siting new sensitive land uses within 1,000 feet of a major service and maintenance rail yard (CARB 2005); the Project site is not located within 1,000 feet of this type of facility. CARB recommends avoiding siting residences within 300 feet of a large gas station or within 500 feet of dry-cleaning operations with 2 machines using perchloroethylene. There are no gas stations within 300 feet or dry cleaners within 500 feet of the Project site. The Project also does not involve emission sources with the potential for substantial levels of emissions of TACs. As such, no off-site sensitive uses would be exposed to significant levels TACs. Therefore, impacts would be less than significant, and no mitigation is required.

Response to Impact Question d): No Impact. Project construction would use equipment and activities that would generate odors that are typical to construction activities and would not be extraordinarily objectionable. Potential construction odors include odors from onsite construction equipment's diesel exhaust emissions as well as roofing, painting, and paving operations. While there may be situations where construction activity odors are noticeable, these odors would be temporary and would dissipate rapidly from the source. Therefore, the impacts would be short-term; would not affect a substantial number of people; and would be less than significant.

Potential operational odors could be created by cooking activities associated with residential uses. These odors would be similar to existing residential uses surrounding the Project site and throughout the City, and odors would be confined to the immediate vicinity of the proposed dwelling units.

Furthermore, according to the SCAQMD's *CEQA Air Quality Handbook*, land uses associated with odor complaints typically include agricultural uses, wastewater treatment plants, food processing plants, chemical plants, composting, refineries, landfills, dairies, and fiberglass molding (SCAQMD 1993). The Project would not result in other emissions and does not include any uses identified by the SCAQMD as being associated with odors and, therefore, would not produce other emissions or objectionable odors. As such, the Project would have no significant impact and no mitigation is required.

Mitigation Program

No significant air quality impacts were identified; therefore, no mitigation is required.

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3.4 Biological Resources

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

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

Introduction

This section evaluates potential impacts to Biological Resources that could result from Project implementation. Analysis in this section is based on the existing environmental setting conditions and information sources identified in this section. A literature review was conducted to determine the potential for special status species reported from the Project region. The following sources were used: the California Native Plant Society's (CNPS') Locational Inventory of Rare and Endangered Vascular Plants of California and the California Department of Fish and Wildlife's (CDFW's) California Natural Diversity Database (CNDDB) for the Tustin, Orange, Black Star Canyon, and El Toro USGS 7.5-minute Quadrangles (CNPS 2020, CNDDB 2020a). The results of the literature search are provided in Appendix B. A desktop review of the Project site using aerial photography, site photographs taken by environmental professionals documenting existing onsite flora/fauna on all areas of the site, and topographic maps was also performed and compared against the habitat requirements of the species identified in the literature search. The following information provides an assessment of the potential for sensitive biological resources to occur on the Project site per the desktop review.

Migratory Birds and Nesting Raptors

The Migratory Bird Treaty Act (MBTA) protects active bird nests. The MBTA makes it illegal for anyone to take, possess, import, export, transport, sell, purchase, barter, or offer for sale, purchase, or barter, any migratory bird, or the parts, nests, or eggs of such a bird except under the terms of a valid permit issued pursuant to federal regulations. Sections 3503, 3503.5, and 3513 of the California Fish and Game Code prohibit activities that "take, possess or destroy" any raptor nest or egg.

Orange County Natural Community Conservation Plan and Habitat Conservation Plan

According to the Central-Coastal Orange County Natural Community Conservation Plan and Habitat Conservation Plan (NCCP/HCP) Planning Areas in Southern California Map, the Project site is located within the Central-Coastal NCCP/HCP. The Central-Coastal NCCP/HCP is a comprehensive, multi-jurisdictional habitat conservation plan focusing on conservation of species and their associated habitats in Orange County, primarily protecting coastal sage scrub habitat and the species that utilize this habitat. In addition, the Central-Coastal NCCP/HCP provides regulatory coverage for a total of 39 individual species; however, none of the species are expected to occur on site. The Central-Coastal NCCP/HCP covers 13 cities, including unincorporated areas of Orange County (CDFW 2020b).

Existing Conditions

The Project site is located on a developed lot with structures and pavement occupying the majority of the site. Per the analysis made during the desktop review, the limited areas on the Project site available for vegetative growth are mostly occupied by ornamental, non-native plant species subject to regular landscaping activities, including mowing and trimming (See Figure 4a). The Project site directly abuts residential development on all sides and an almost-continuous, narrow band of vegetation occurs between the adjacent development and the structures/pavement located on the Project site. This narrow band of vegetation is not subject to regular landscaping activities, likely due to the limited accessibility available in these areas. The plant species present in these non-landscaped areas include gum tree (*Eucalyptus* sp.), pine (*Pinus* sp.), Mexican fan palm (*Washingtonia robusta*), carrotwood (*Cupaniopsis anacardioides*), bougainvillea (*Bougainvillea spectabilis*), oleander (*Nerium oleander*), mission fig (*Opuntia ficus-indica*), freeway iceplant (*Carpobrotus edulis*), agave (*Agave* sp.), and tree tobacco (*Nicotiana glauca*). One occurrence of a native tree species, coast live oak (*Quercus agrifolia*) was photographed on the southeastern-most corner of the Project site. Sparsely scattered occurrences of laurel sumac (*Malosma laurina*) were also photographed onsite. No native or otherwise naturalized vegetation types occur on the Project site.

Stormwater runoff is facilitated offsite via concrete V-ditches that extend along the southwestern and southeastern boundaries of the Project site. No wetlands, riparian vegetation, or evidence of natural drainage features were photographed or are otherwise anticipated to occur on the Project site.

Response to Impact Question a): No Impact. The literature review conducted through CNPS and CNDDB as stated above, identified six plant species and eighteen wildlife species protected under the State and/or Federal Endangered Species Acts (ESAs) that were previously observed in the Orange, Tustin, Black Star Canyon, and El Toro USGS 7.5-minute topographic quadrangles. Two of those species were previously recorded within one mile of the project site: coastal California gnatcatcher (*Polioptila californica californica*) and least Bell's vireo (*Vireo bellii pusillus*). The results of the literature search are provided in Appendix B.

The Project site is predominantly developed and the limited areas with vegetation onsite do not contain any vegetation types native or otherwise naturalized to California. Furthermore, the Project site is not mapped within any federally-designated Critical Habitat. No suitable habitat for any species protected under the ESAs occurs on the Project site and no impacts to those species are anticipated as a result of the proposed project.

As noted above, no native or otherwise naturalized habitat occurs on the Project site. Therefore, no suitable habitat for other special-status species, such as species California Native Plant Ranked species or California Species of Special Concern, occurs on the Project site and none of these species are anticipated to occur. No impacts to any special status species are anticipated as a result of the proposed project.

Response to Impact Question b): No Impact. The Project site is predominantly developed with active recreational facilities and the limited areas with vegetation onsite do not contain any vegetation types that are native or otherwise naturalized to California. No wetlands on the National Wetlands Inventory were identified on site, and no riparian vegetation occurs on the site (USFWS 2019). Therefore, no impacts would occur to USACE, RWQCB, or CDFW jurisdictional areas under the Project. Since none of these areas are present on Project site, the Project would not have a substantial adverse effect on a riparian habitat,

on a sensitive community, or on a state or federally protected wetland. Therefore, no impacts would occur, and no mitigation is required.

Response to Impact Question c): No Impact. The site has been disturbed and developed with recreational facilities. The Project site is devoid of natural drainages and features that would indicate potential occurrence of state or federally-protected wetlands, including isolated wetland. Additionally, as discussed in response b), above, no wetlands on the National Wetlands Inventory were identified on site. As no potential for wetlands exist on the site, construction of the proposed residential development would not result in direct removal, filling, and hydrological interruption. Therefore, no impacts would result, and no mitigation is required.

Response to Impact Question d): Less Than Significant Impact with Mitigation. Developed areas present barriers to wildlife movement, and the Project site and surrounding area is developed with urban uses. No wildlife movement is expected to occur on site because the site is developed with active recreational facilities, bordered on all sides by suburban residential units and does not provide a linkage to other undeveloped areas. Only urban-tolerant wildlife (e.g., raccoon [*Procyon lotor*], opossum [*Didelphis virginiana*], coyote [*Canis latrans]*) and some urban-adapted bird species would be expected to use the site. The proposed Project would not interfere substantially with the movement of native resident or migratory fish or other wildlife species or established wildlife corridor because none of them are present on site.

Based on Psomas' staff biologist's review of comprehensive photographs of the limited onsite vegetated areas, the vegetation on the Project site provides suitable nesting habitat for migratory birds protected under the Migratory Bird Treaty Act and California Fish and Game Code. A routine construction practice to avoid impacts is to schedule tree and vegetation removal outside of the breeding season. This requires that all tree removal during the non-nesting bird season (September 2 to February 14).

If vegetation removal activities would occur during bird nesting season (February 1 to August 31), a pre-construction survey for nesting birds would be required within seven days prior to clearing of any vegetation. If any active nests are detected, the area and a buffer (likely ranging between 25 to 500 feet) must be avoided until the chicks have fledged or until the Monitoring Biologist has determined that the nest is no longer active. Implementation of MM BIO-1 would also ensure that impacts to nesting birds are minimized. Due to the developed nature of the Project site and with implementation of the MM BIO-1, the potential impacts to wildlife movement would be reduced to less than significant level.

Response to Impact Question e): No Impact. The County does not have any specific policies or ordinances protecting biological resources, such as a tree preservation ordinance, for this portion of the County. Therefore, no impacts are anticipated and no mitigation is required.

Response to Impact Question f): Less Than Significant Impact. The County of Orange (in conjunction with State and federal resource agencies, local jurisdictions, utility companies, the Transportation Corridor Agencies, and major private landowners) prepared the Central/Coastal HCP/NCCP (CDFW 1996). The purpose of the NCCP program is to provide regional or area-wide protection and to promote perpetuation of natural wildlife diversity while allowing compatible and appropriate development and growth. The focus of the NCCP program represents a dramatic shift from "individual species" to "habitat" preservation. This HCP/NCCP is intended to ensure the long-term survival of the coastal California gnatcatcher and other special status, coastal sage scrub-dependent plant and wildlife species in accordance with State-sanctioned NCCP program guidelines. As part of the HCP/NCCP, the County and other participating

landowners set aside large areas of habitat, known as the Reserve Area, that will remain as open space in perpetuity in order to mitigate for the loss of habitat areas outside the designated Reserve Area.

Although the Project site is located in the study limits of the HCP/NCCP, it is not located within or immediately adjacent to a Reserve area, special linkage area, or non-reserve open space area and is mapped on the HCP/NCCP as Developed. Furthermore, no native or otherwise naturalized vegetation types occur on the Project site.

Therefore, the Proposed Project would not conflict with the provisions of the HCP/NCCP. Any potential impacts would be less than significant, and no mitigation is required.

Mitigation Program

MM BIO-1 Pre-construction surveys for nesting birds are required immediately prior to construction (e.g., within seven days) during the nesting bird season (February 15 to September 1). This requirement shall be included as "Notes" on the contractor specifications and shall be reviewed by the Manager of Building & Safety, or designee, for compliance with this requirement prior to issuance of a grading permit.

References

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3.5 Cultural/Scientific Resources

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

Introduction

This section evaluates potential impacts to Cultural/Scientific Resources that could result from Project implementation. Analysis in this section is based on the existing environmental setting conditions, and information sources identified in this section. Responses to the impact questions listed above are provided below.

South Central Coastal Information Center Record Search

An archaeological records search was conducted by Psomas Archaeologist Charles Cisneros on November 21, 2017, at the South Central Coastal Information Center (SCCIC) at California State University, Fullerton. The SCCIC is the designated branch of the California Historical Resources Information System (CHRIS), one of ten Statewide repositories, which houses records of archaeological and historic resources in Orange, Los Angeles, San Bernardino, and Ventura Counties. The review consisted of an examination of the U.S. Geological Survey's (USGS's) Orange 7.5-minute quadrangle to evaluate the Project area for any sites recorded or cultural resources studies conducted on the Project site and within a ½-mile radius. Data sources consulted at the SCCIC include the Historic Property Data File (HPDF) maintained by the California Office of Historic Preservation (OHP), archaeological records, Archaeological Determinations of Eligibility (AOE), and historic maps. The HPDF contains listings for the California Register of Historic Resources (CRHR), Nation Register of Historic Places (NRHP), California Historical Landmarks (CHL), and California Points of Historical Interest (CPHI).

Previous Cultural Resources Studies Within One-Half Mile of the Project Site

The SCCIC records search conducted by Psomas identified 23 prior cultural resources technical studies within ½-mile of the Project site. The technical studies consist of block and linear surveys, archaeological data recovery (excavations and testing), regional overviews, and construction compliance monitoring projects dating to as early as 1976 and as recently as 2011. The studies were all located within a half-mile of the Project site. The regional overview studies are a testament to the archaeological sensitivity of the region surrounding the project area. The prior studies are listed in Table 11, and the records search results summary from the SCCIC is presented in Appendix C-1. Of the 22 studies identified within the search radius, none is located within the Project site.

Table 11: Previous Cultural Resources Studies Within One-Half Mile of the Project Site

Report Number	Author/Year	Title	Type of Study
OR-00062	Desautels 1976	Archaeological Survey Report on Lot 13 – Irvine Tract 694 – Assessor's Parcel #103-052-13 Located in the Lemon Heights Area of Orange County	Archaeological Survey
OR-00077	Unknown 1976	Archaeological Survey Report on Lot No. 318, Block 13 – Irvine's Subdivision Per Map Recorded in Book 1, Page 88 of Msc. Record Maps, County of Orange	Archaeological Survey
OR-00130	Desautels 1976	Archaeological Survey Report on 3 Parcels of Land Located in the Lemon Heights Area of the County of Orange	Archaeological Survey
OR-00133	Desautels 1977	Archaeological Survey Report on 1.5 Acres of Land Located in the Lemon Heights Area of the County of Orange	Archaeological Survey
OR-00151	Desautels 1977	Archaeological Survey Report on Tt 9688 Located in the Lemon Heights Area of the County of Orange	Archaeological Survey
OR-00172	Desautels 1977	Archaeological Survey Report on Two Aces of Land Located in the Lemon Heights Area of the County of Orange	Archaeological Survey
OR-00200	Perry 1977	Archaeological Survey Report on Four Parcels of Land Located in the Lemon Heights Area of the County of Orange	Archaeological Survey
OR-00274	Anonymous 1978	Report of Archaeological Resources Survey Conducted for Laguna and Peter's Canyons	Archaeological Survey
OR-00305	Schroth 1979	The History of Archaeological Research on Irvine Ranch Property: The Evolution of a Company Tradition	Archaeological Research Special Report
OR-00494	Singer 1976	Preliminary Assessment of Cultural Resources within the Proposed Peters Canyon Regional Park, Orange County	Archaeological Resources Assessment
OR-00500	Desautels 1980	Archaeological Survey Report on Lot 38 Located in the Lemon Heights Area of the County of Orange	Archaeological Survey

Table 11: Previous Cultural Resources Studies Within One-Half Mile of the Project Site

Report Number	Author/Year	Title	Type of Study
OR-00616	Van Horn 1981	Archaeological Survey Report: Tentative Parcel Map No. 465 Located in Lemon Heights, County of Orange, California	Archaeological Survey
OR-00752	Mason 1984	Eastern Corridor Alignment Study, Orange County, California, Volume II: Prehistory and History	Archaeological Overview
OR-00936	Breece, Rosenthal, and Padon 1988	Test Level Investigations at CA-ORA-184 and CA-ORA-548 Peters Canyon, Tustin, California	Archaeological Testing
OR-01040	Jertberg 1990	Archaeological and Paleontological Monitoring Report for Tract 13627	Archaeological and Paleontological Monitoring
OR-01078	Rosenthal, Padon, and Crownover	Archaeological Investigations at CA-ORA-184 Locus B, CA-ORA-547 Locus B, CA-ORA-548 Extension, CA-ORA-771 and CA-ORA-771 Extension, Peters Canyon, Tustin, California	Archaeological Testing
OR-01132	Jertberg 1990	Monitoring and Supplemental Data Recovery at CA-ORA-184a/548 Peters Canyon, Tustin, California	Archaeological Monitoring and Testing
OR-02225	Strozier 1978	The Irvine Company Planning Process and California Archaeology – A Review and Critique	Archaeological Review
OR-02534	Anonymous 1976	Annual Report to The Irvine Company from Archaeological Research, Inc.	Archaeological Report
OR-03808	Bonner 2009	Cultural Resources Records Search and Site Visit Results for T-Mobile USA Candidate LA33842 9Cedar Grove Park), 11385 Pioneer Road, Tustin, Orange County, California	Archaeological Survey
OR-04155	Bonner 2011	Cedar Grove LA33842-E, 11385 Pioneer Road, Tustin, California 92782	Cultural Resources Study
OR-04360	Stevens and Maxon 1998	Final Paleontological and Archaeological Monitoring Report for Tustin Ranch Project, Tract 15601, City of Tustin, California	Archaeological and Paleontological Monitoring

Previously Recorded Archaeological Sites

The SCCIC records search also identified four archaeological sites within a half-mile radius of the Project site. The presence of several archaeological sites in the immediate vicinity of the Project site is an indicator that the region has the potential to provide a wealth of information on past human activities within this area. Of the four sites, three are solely prehistoric, comprising habitation debris (fire affected rocks) and lithic (stone) scatters. The lithic scatters consisted mostly of debitage (lithic waste flakes) and stone tools, including ground stone fragments, blades, and choppers/hammerstones. One obsidian (volcanic glass) retouched lithic stone tool was also identified at one of the sites suggesting imported material was brought to the region from other parts of California. The remaining archaeological site is described as a

multicomponent rock art site dating to both the prehistoric and historic eras. None of the archaeological sites are located on the Project site and will not be impacted from Project related activities.

Descriptions of the sites and the dates of recordation are provided in Table 12.

Table 12: Previously Recorded Archaeological Sites Within One-Half Mile of the Project Site

Primary Number	Site Number	Recorder/Year	Description	Relative Location to the Project Area
P-30-000548	CA-ORA-548	Cody 1984	Prehistoric: lithic scatter, habitation debris	Outside
P-30-000711	CA-ORA-711	Bissell 1995	Prehistoric: lithic scatter, habitation debris	Outside
P-30-000772	CA-ORA-772	Cody 1984	Prehistoric: lithic scatter, habitation debris	Outside
P-30-001195	CA-ORA-1195/H	Banks 1984	Multicomponent: rock art	Outside

Native American Consultation

Significant impacts to tribal cultural resources are considered significant impacts to the environment. Pursuant to Assembly Bill (AB) 52 requires lead agencies to consult with California Native American tribes that request such consultation. As discussed in Section 3.18, Tribal Cultural Resources, the County has conducted the necessary consultation process. Psomas submitted a request to the NAHC for a Sacred Lands File search and a list of tribal representatives for AB 52 coordination on November 1, 2018.

Regulatory Requirement and County Standard Conditions

The following regulatory requirement would be applicable to the Project in the event human remains are discovered on site during excavation activities.

RR CUL-1 In the unlikely event that suspected human remains are uncovered during construction, all activities in the vicinity of the remains shall cease and the contractor shall notify the County Coroner immediately pursuant to Section 7050.5 of the California Health and Safety Code.

The following County Standard Conditions would be applicable to the Project.

SC CUL-1 Prior to the issuance of the first grading permit, the applicant shall provide written evidence to the Manager, Building and Safety, the applicant has retained a County-certified archaeologist, to observe grading activities and salvage and catalogue archaeological resources as necessary. The archaeologist shall be present at the pre-grade conference, shall establish procedures for archaeological resource surveillance, and shall establish, in cooperation with the applicant, procedures for temporarily halting or redirecting work to permit the sampling, identification, and evaluation of the artifacts as appropriate. If archaeological resources are found to be significant, the archaeological observer shall determine appropriate actions, in cooperation with the project applicant, for exploration and/or salvage.

Prior to the release of the grading bond the applicant shall obtain approval of the archaeologist's follow-up report from the Manager, Building and Safety. The report shall include the period of inspection, an analysis of any artifacts found and the present repository of the artifacts. The archaeologist shall prepare excavated material to the point of identification. Applicant shall offer excavated finds for curatorial purposes to the County of Orange, or its designee, on a first refusal basis. These actions, as well as final mitigation and disposition of the resources, shall be subject to the approval of the Manager, Building and Safety. Applicant shall pay curatorial fees if an applicable fee program has been adopted by the Board of Supervisors, and such fee program is in effect at the time of presentation of the materials to the County of Orange or its designee, all in a manner meeting the approval of the Manager, Building and Safety. (County Standard Condition A02).

Response to Impact Question a): No Impact. The Project site is in the fully developed North Tustin area and adjacent to developed residential property in the City of Tustin. Based on the literature review, the Project site, existing Tustin Hills Racquet Club and adjacent structures are not listed in the CRHR, the NRHP, CHL, or CPHI. However, CHL No. 203, Red Hill Orange, also known as Cerrito De Las Ranas (Hill of the Frogs) is located 0.75 mile from the Project site. Due to the distance from the Project site, the landmark would not be impacted by the Project.

A Historical Resource Assessment, provided in Appendix C-2, was prepared to conduct a historical resource investigation of the Tustin Hills Racquet Club (PaleoWest 2019). A pedestrian survey and historical research were conducted as part of the evaluation. Criteria of the California Register of Historical Resources (CRHR) was applied to evaluate the eligibility of the Racquet Club for listing on the CRHR. Based on this evaluation, it was determined that the Racquet Club does not meet any of the four criteria used for eligibility of listing on the CRHR. Therefore, the Tustin Hills Racquet Club is not considered a historical resource.

Furthermore, the Orange County General Plan does not include the Project site or the existing Tustin Hills Racquet Club in the Local Register of Historical Resources. In addition, there are no historical resources or districts near the Project site. Most of the residential buildings surrounding the Project site to the north and west, were built between 1966-1970, and the Tustin Hills Racquet Club was established in 1958. Homes southwest of the Project site were built prior to 2002 (GEOCON, 2017).

There are no historic resources, including significant historic structures, on the Project site. Thus, the demolition of the racquet club and associated facilities and redevelopment of the Project site with residential uses would not cause any direct or indirect impact to historic resources, nor would it adversely affect the historic significance of historical resources in the County. No off-site historical resources were identified in the records search. The Project is not expected to cause a substantial adverse change in the significance of a historical resource as defined in §15064.5, and no additional measures are required.

Response to Impact Question b): Less Than Significant Impact. The Project site consists of 5.88 acres located in a region of Orange County that has a long and diverse history of human occupation and interaction as evidenced from the SCCIC records search and literature review. The results of the SCCIC records search indicate that three previously recorded prehistoric habitation sites (CA-ORA-548, CA-ORA-711, and CA-ORA-772) and one multicomponent rock art site (CA-ORA-1195/H) have been identified within a half mile of the Project site; however, the archaeological sites are not within the Project site and will not be affected by Project related activities.

Moreover, the Project site has been previously graded and disturbed and artificial fill extends to 2.5 – 8 feet below ground surface. Artificial fill (found in the upper 2.5 to 8 feet of soils) and previous intact native sediments would have been disturbed from past grading activities. Therefore, these depths are unlikely to contain significant intact archaeological resources.

Nevertheless, there is always the possibility that undiscovered intact archaeological deposits may be present below the 8-feet depth in undisturbed Quaternary Alluvium, and these intact deposits (if present) may be subject to direct impact. As proposed, construction of the proposed Project includes areas where excavation of at least 8 feet below ground surface would be required as part of site preparation. Additionally, footings for buildings may extend into native soil. However, if Project-related activities occur within these native sediments, the Project will be required to implement SC CUL-1 (County Standard Condition A02), which requires a County-certified archaeologist to observe grading activities within native sediments and salvage and catalogue archaeological resources that may be uncovered during excavation activities. With implementation of the Standard Condition, this impact would be less than significant.

Response to Impact Question c): Less Than Significant Impact. Most of the Project site has been previously graded, and no human remains were identified by either the SCCIC or from the NAHC Sacred Lands File record searches conducted in 2017. Therefore, the proposed Project is not expected to be developed in any areas containing known human remains, including those interred outside formal cemeteries. In the unlikely event that suspected human remains are uncovered during construction, implementation of RR CUL-1, requiring all activities near the remains shall cease and the contractor shall notify the County Coroner immediately pursuant to Section 7050.5 of the *California Health and Safety Code*. Compliance with regulatory requirements would ensure that potential impacts are less than significant.

Mitigation Program

With implementation of the Regulatory Requirement (RR CUL-1) and the County Standard Conditions (SC CUL-1 and SC CUL-2), no significant impacts to cultural/scientific resources are anticipated; therefore, no mitigation is required.

References

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3.6 Energy

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

Introduction

This section evaluates potential impacts to Energy that could result from Project implementation. Analysis in this section is based on the existing environmental setting conditions provided below, and information sources identified in this section. Responses to the impact questions listed above are provided below.

Section 21100(b)(3) of the *California Public Resources Code* and Appendix G to the State CEQA Guidelines require a discussion of potential energy impacts of proposed projects. Appendix G states:

> The goal of conserving energy implies the wise and efficient use of energy. The means of achieving this goal include:
>
> (1) Decreasing overall per capita energy consumption,
>
> (2) Decreasing reliance on fossil fuels such as coal, natural gas and oil, and
>
> (3) Increasing reliance on renewable energy sources.

Southern California Edison (SCE) and the Southern California Gas Company (SCGC) are the utility companies that currently provide and would continue to provide electrical and natural gas services to the Project site. The State of California and Orange County have developed energy efficiency requirements and energy conservation goals. Compliance with energy efficiency and conservation policies and regulations is discussed in this section.

State of California

The State of California has also adopted efficiency design standards within the Title 24 Building Standards and CALGreen requirements. Title 24 of the *California Code of Regulations* (CCR, specifically, Part 6) is California's Energy Efficiency Standards for Residential and Non-residential Buildings. Title 24 was established by the California Energy Commission (CEC) in 1978 in response to a legislative mandate to

create uniform building codes to reduce California's energy consumption and to provide energy efficiency standards for residential and non-residential buildings. The 2019 California Green Building Standards Code (24 CCR, Part 11), also known as the CALGreen Code, contains mandatory requirements for new residential and nonresidential buildings throughout California. The development of the CALGreen Code is intended to (1) cause a reduction in GHG 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. In short, the Code is established to reduce construction waste; make buildings more efficient in the use of materials and energy; and reduce environmental impact during and after construction. The regulation of energy efficiency for residential and non-residential structures is established by the California Energy Commission (CEC 2018) and its California Energy Code. Starting on January 1, 2020, all new single-family residential uses will be required to offset their annual electrical demand through the use of energy efficiency and solar photovoltaic panels. These new homes are expected to reduce energy use by more than 50 percent. The proposed Project would be consistent with these objective and policies.

County of Orange General Plan

The General Plan provides for the following policies relative to energy use in the County of Orange:

Land Use - To plan urban land uses with a balance of residential, industrial, commercial, and public land uses as set forth in the Land Use Element.

Energy Resources - To encourage and actively support the efficient use and optimum development of energy resources in the County consistent with sound resource management practices.

Energy Conservation - To encourage and actively support the utilization of energy conservation measures in all new and existing structures in the County.

Transportation - To provide incentives for transportation system management programs and support regional public transportation programs that reduce energy consumption.

Energy Financing - To examine the benefits of local government financing programs that promote energy conservation and development through cooperative public/private efforts.

Alternative Energy Systems - To encourage the use of alternative energy systems and, to the extent feasible, remove the regulatory barriers to their implementation.

Solar Access - To support and encourage voluntary efforts to provide solar access opportunities in new developments.

In addition, the Resources Element of the General Plan provides for the following goals and objectives relative to energy use in the County of Orange.

Goal 1: Maximize the conservation and wise use of energy resources in all residences, businesses, public institutions, and industries in Orange County.

- **Objective:**

1.1 Achieve a reduction in projected per capita energy demand and consumption by the year 2005.

Goal 2: Encourage the utilization of existing energy resources to their highest potential and the development of alternative energy sources consistent with sound energy conservation practices and techniques to meet the County's future energy demand.

- **Objective:**

2.1 Encourage the efficient development of local energy resources to supply a portion of the County's energy demand through the year 2005 in a manner which protects the environment.

Goal 3: Maximize the conservation of energy resources in all future land use and transportation planning decisions.

- **Objectives**

3.1 To achieve target residential densities along transportation corridors and in urban activity centers as set forth in the Air Quality Management Plan (AQMP).

3.2 To reduce transportation demand by establishing balanced communities that provide housing, employment, recreational, and cultural opportunities for all segments of the population.

3.3 To maintain a community leadership role with respect to conservation of nonrenewable resources and assist existing utility conservation programs.

Impact Analysis

Response to Impact Question a): Less Than Significant Impact. Energy consumption would occur from both the construction and operations phase of the Project. The following provides estimates of the anticipated energy consumption associated with the Project.

Construction

Project construction would require the use of construction equipment for grading and building activities; all off-road construction equipment is assumed to use diesel fuel. Construction also includes the vehicles of construction workers and vendors traveling to and from the Project site.

Off-road construction equipment use was calculated from the equipment data (mix, hours per day, horsepower, load factor, and days per phase) provided in the CalEEMod construction output files included in Appendix A. The total horsepower hours for the Project was then multiplied by fuel usage estimates per hours of construction activities included in the OFFROAD Model.

Fuel consumption from construction worker, vendor, and delivery/haul trucks was calculated using the trip rates and distances provided in the CalEEMod construction output files. Total vehicle miles traveled (VMT) was then calculated for each type of construction-related trip and divided by the corresponding miles per gallon factor using California Air Resources Board's (CARB's) EMFAC 2014 model. EMFAC provides the total annual VMT and fuel consumed for each vehicle type. Construction vendor and delivery/haul trucks were assumed to be heavy-duty diesel trucks.

As shown in Table 13, Energy Use During Construction, a total 34,677 gallons of diesel fuel and 21,480 gallons of gasoline is estimated to be consumed during Project construction.

Table 13: Energy Use During Construction

Source	Gasoline - gallons	Diesel Fuel - gallons
Off-road Construction Equipment	0	33,562
Worker commute	18,483	23
Vendors	2,985	32
On-road haul	12	1,059
Totals	21,480	34,677
Sources: Data from CalEEMod, OFFROAD and EMFAC2014.		

Fuel energy consumed during construction would be temporary in nature and would not represent a significant demand on energy resources. Furthermore, there are no unusual project characteristics that would necessitate the use of construction equipment that would be less energy-efficient than at comparable construction sites in other parts of the State. Energy used in construction of the Project would enable the development of buildings that meet the latest energy efficiency standards as detailed in California's Title 24 building standards. Therefore, proposed construction activities would not result in inefficient, wasteful, or unnecessary fuel consumption. Impacts would be less than significant, and no mitigation is required.

Operations

The Project would promote building energy efficiency through compliance with energy efficiency standards (Title 24 and CALGreen). The Project site is currently occupied by recreational facilities. The energy usage associated with the existing facility operations would be replaced by those associated with the Project. The Project's energy consumption is shown in Table 14, Energy Use During Operations, below. Energy use associated with vehicular trips would be less than the existing condition because the Project would result in less ADTs compared to the existing conditions.

Table 14: Energy Use During Operations

Land Use	Natural Gas (kBTU/yr)	Electricity (kWh/yr)
Project Land Uses	652,888	212,010
Sources: Data from CalEEMod, OFFROAD and EMFAC2014, as presented in Appendix D, Energy Calculations.		

The CEC anticipates the new 2019 Building Energy Efficiency Standards would result in a reduction of energy use by more than 50 percent as compared to previous energy standards (CEC 2018). Therefore, the new buildings would be more energy efficient than the existing buildings to be removed. With respect to energy use associated with transportation, the Project uses would result in a net reduction of trips (RK Engineering Group, Inc. 2020).

In terms of whether the operations phase would result in a wasteful, inefficient, or unnecessary consumption of energy resources, the Project would add new units to the housing inventory within Orange County. According to the Resolution of the Board of Supervisors of Orange County – Orange County's Declaration on Housing, "Whereas, Orange County is experiencing a substantial shortage of

housing, which is creating a significant negative impact on household budgets and the quality of life of its residents, as well as diminishing our county's workforce…" (Orange County 2018). Because the Project would address the deficiency in housing stock within Orange County, it would provide additional housing options to the County of Orange and potentially reduce the use of transportation fuels. As such, increasing the housing inventory within Orange County is not considered a wasteful, inefficient or unnecessary consumption of energy resources. Therefore, the proposed Project would not result in an inefficient, wasteful, or unnecessary consumption of energy.

Response to Impact Question b): Less Than Significant Impact. The Project would be required to comply with the State of California's Title 24 Building Standards. As discussed previously, the latest building standards will incorporate the CEC's building energy efficiency standards which will reduce energy consumption by over half. Because the Project complies with the latest energy efficiency standards, addresses the housing deficiency within the County and incorporates renewable energy, the Project would not conflict with or obstruct a state or local plan for renewable energy or energy efficiency. Impacts would be less than significant, and no mitigation is required.

Mitigation Program

No significant impacts pertaining to energy are anticipated; therefore, no mitigation is required.

References

California Energy Commission (CEC). 2018 (May 9). Energy Commission Adopts Standards Requiring Solar Systems for New Homes, First in Nation. https://www.energy.ca.gov/news/2018-05/energy-commission-adopts-standards-requiring-solar-systems-new-homes-first.

Orange County Board of Supervisors. 2018 (March 13). Resolution of the Board of Supervisors Orange County. Orange County's Declaration on Housing. https://voiceofoc.org/wp-content/uploads/2018/03/Orange-County-Declaration-on-Housing-adopted-by-Board-of-Supervisors-on-March-13.pdf.

RK Engineering Group, Inc. 2020 (February 24). 11782 Simon Ranch Road Trip Generation Analysis, County of Orange. Newport Beach, CA: RK Engineering Group, Inc.

3.7 Geology and Soils

Would the project:	Potentially Significant Impact	Less than Significant With Mitigation Incorporated	Less than Significant Impact	No Impact
a) Directly or indirectly cause potential substantial adverse effects, including the risk of loss, injury, or death involving: i) Rupture of a known earthquake fault, as delineated on the most recent Alquist-Priolo Earthquake Fault Zoning Map issued by the State Geologist for the area or based on other substantial evidence of a known fault? Refer to Division of Mines and Geology Special Publication 42.	☐	☐	☒	☐
a) Expose people or structures to potential substantial adverse effects, including the risk of loss, injury, or death involving: ii) Strong seismic ground shaking?	☐	☐	☒	☐
a) Expose people or structures to potential substantial adverse effects, including the risk of loss, injury, or death involving: iii) Seismic-related ground failure, including liquefaction?	☐	☐	☒	☐
a) Expose people or structures to potential substantial adverse effects, including the risk of loss, injury, or death involving: iv) Landslides?	☐	☒	☐	☐
b) Result in substantial soil erosion or the loss of topsoil?	☐	☐	☒	☐

Would the project:	**Potentially Significant Impact**	**Less than Significant With Mitigation Incorporated**	**Less than Significant Impact**	**No Impact**
c) Be located on a geologic unit or soil that is unstable, or that would become unstable as a result of the project, and potentially result in onsite or offsite landslide, lateral spreading, subsidence, liquefaction or collapse?	☐	☒	☐	☐
d) Be located on expansive soil, as defined in Table 18-1-B of the Uniform Building Code (1994), creating substantial direct or indirect risks to life or property?	☐	☒	☐	☐
e) Have soils incapable of adequately supporting the use of septic tanks or alternative waste water disposal system where sewers are not available for the disposal of waste water?	☐	☐	☐	☒
f) Directly or indirectly destroy a unique paleontological resource or site or unique geologic feature?	☐	☐	☒	☐

Introduction

This section evaluates potential impacts to Geology and Soils that could result from Project implementation. Analysis in this section is based on the existing environmental setting conditions, which are described in the context of each of the impact questions, and information sources identified in this section.

Geotechnical Constraints

A Geotechnical Investigation dated May 16, 2017, was prepared by Geocon West, Inc. (Geocon). The Geotechnical Investigation included a site reconnaissance, field exploration, laboratory testing, engineering analysis, and the preparation of the geotechnical investigation report. The report was prepared for the proposed Project to evaluate subsurface soil and geologic conditions underlying the Project site and provide conclusions and recommendations pertaining to the geotechnical aspects of design and construction. The findings of the Geotechnical Investigation are incorporated in the following analyses, and the report is included as Appendix E to this IS/MND.

Paleontological Resources

An online paleontological records search using the Paleobiology Database (paleobioDB.org) indicated four vertebrate paleontological resource localities within a two-mile radius of the Project site (Table 15). Of these, none have been recorded within or immediately adjacent to the Project area. Invertebrate fossils, including the index fossils *Turritella inezana* and *Rapana vaquerosensis*, have been recovered from multiple localities near the Project area.

Table 15: Vertebrate Paleontological Resources Sites Within Two Miles of the Project Site

Locality Number	North American Land Mammal Age	Reference/Year	Fauna
OCPC 02013	Late Late Arikareean (19.5 – 18.8Ma)	Whistler and Lander 2003	*Herpetotherium sp.* (marsupial); *Hesperomys nematodon* (mouse); *Miospermophilus* (squirrel); *Cuyamalagus dawsoni* (pika)
OCPC 02014	Late Late Arikareean (19.5 – 18.8Ma)	Whistler and Lander 2003	*Proheteromys sp.* (rodent); *Schizodontomys sp.* (rodent)
OCPC 02012/02024	Late Uintan (46.2 – 42Ma)	Whistler and Lander 2003	*Herpetotherium sp.,* (marsupial); *Cuyamalagus dawsoni,* (pika); *Miospermophilus sp.* (squirrel); *Proheteromys sp.* (rodent); *Trogomys rupinimenthae* (rodent); *Schizodontomys sp.* (rodent)

County Standard Conditions

The following County Standard Conditions would be applicable to the Project.

SC GEO-1 Prior to the issuance of a grading permit, the applicant shall submit a geotechnical report to the Manager, Building and Safety, for approval. The report shall include the information and be in the form as required by the Grading Code and Grading Manual.[5] (County Standard Condition G01)

SC CUL-2 Prior to the issuance of the first grading permit, the project applicant shall provide written evidence to the Manager, Building and Safety, that applicant has retained a County certified paleontologist to observe grading activities and salvage and catalogue fossils as necessary. The paleontologist shall be present at the pre-grade conference, shall establish procedures for paleontological resource surveillance, and shall establish, in cooperation with the applicant, procedures for temporarily halting or redirecting work to permit sampling, identification, and evaluation of the fossils. If the paleontological resources are found to be

[5] The *Grading Manual* provides detailed compilation of rules, procedures, and interpretations necessary to carry out the provisions of the *OC Grading and Excavation Code*. The *Grading Manual* contains provisions specifying what needs to be addressed in geotechnical studies. Evaluation of the grading plans in compliance with the requirements of the Grading Manual would ensure the Project is in compliance with the OC Grading and Excavation Code.

significant, the paleontologist shall determine appropriate actions, in cooperation with the applicant, to ensure proper exploration and/or salvage.

Prior to the release of the grading bond the applicant shall submit the paleontologist's follow-up report for approval by the Manager, Permit Services. The report shall include the period of inspection, a catalogue and analysis of the fossils found, and the present repository of the fossils. Applicant shall prepare excavated material to the point of identification and offer excavated finds for curatorial purposes to the County of Orange, or its designee, on a first refusal basis. These actions, as well as final mitigation and disposition of the resources, shall be subject to approval by Manager, Permit Services. Applicant shall pay curatorial fees if an applicable fee program has been adopted by the Board of Supervisors, and such fee program is in effect at the time of presentation of the materials to the County of Orange or its designee, all in a manner meeting the approval of the Manager, Permit Services. (County Standard Condition A04)

Response to Impact Question a-*i*): Less than Significant Impact. The Project site is located on bedrock along the eastern portion of the Coastal Plain of Orange County. The Project site is situated on the western flank of the foothills at the base of the Santa Ana Mountains north and west of Peters Canyon Wash (Geocon 2017). A northeasterly trending geologic contact transects the Project site, separating Eocene age bedrock on the northwest from alluvium deposits of Quaternary age on the southeast. The Project site is located within the *USGS* Orange, 7.5-minute Topographic Map. There is no presence of active faulting within the Project site and the Project site does not lie within an "Earthquake Fault Zone," as defined by the State of California in the Alquist-Priolo Earthquake Fault Zoning Act. There are no known faults that underlie the site. The closest surface trace of an active fault to the Project site is the Whittier Fault located approximately 10.5 miles to the northeast (see Figure 10, Regional Fault Map). Therefore, the proposed Project would not expose people or structures to potential substantial adverse effects, including the risk of loss, injury, or death involving rupture of a known earthquake fault. Additionally, due to the distance from the nearest fault, the potential for surface rupture due to faulting would also be less than significant. Implementation of SC GEO-1 would further reduce these less than significant impacts and no mitigation is required.

Response to Impact Question a-*ii*): Less than Significant Impact. As with all of Southern California, the site has experienced historic earthquakes from various regional faults. The seismicity of the region surrounding the site was formulated based on research of an electronic database of earthquake data. The epicenters of recorded earthquakes with magnitudes equal to or greater than 5.0 in the site vicinity are depicted on Figure 11, Regional Seismicity Map. The Project site could be subjected to strong ground shaking in the event of an earthquake. However, as previously discussed, this hazard is typical throughout the Southern California region. The closest surface trace of an active fault to the Project site is the Whittier Fault located approximately 10.5 miles to the northeast (see Figure 10, Regional Fault Map). In addition to the Whittier Fault, other nearby active faults in proximity to the Project site include the Elsinore Fault located approximately 11.5 miles northeast of the Project site, the Newport-Inglewood Fault Zone located approximately 12 miles southwest of the Project site, the Chino Fault located approximately 13 miles northeast of the Project site, and the Central Avenue Fault located approximately 15.5 miles north-northeast of the Project site (Geocon 2017). Additionally, the active San Andreas Fault Zone is located approximately 39 miles northeast of the Project site.

Further, the closest potentially active fault to the Project site is the Peralta Hills Fault located approximately five miles to the northwest. Other nearby potentially active faults include the Pelican Hill

Fault located approximately ten miles southwest of the Project site, the Norwalk Fault located approximately 13.5 miles northwest of the Project site, and the Los Alamitos Fault located approximately 17.5 miles northwest of the Project site (Geocon 2017).

The Geotechnical Investigation concludes the potential effects of ground shaking on proposed structures can be mitigated provided the construction of the proposed Project, is in conformance with current building codes and engineering practices. Therefore, by incorporating applicable seismic design criteria in the California Building Code (CBC) in effect at the time of permit issuance and incorporation of applicable engineering practices impacts associated with seismic ground shaking would be less than significant. Implementation of SC GEO-1 would further reduce these less than significant impacts and no mitigation is required

Response to Impact Question a-*iii*): Less than Significant Impact. Liquefaction is a phenomenon in which loose, saturated, relatively cohesionless soil deposits lose shear strength during strong ground motions. Primary factors controlling liquefaction include intensity and duration of ground motion, gradation characteristics of the subsurface soils, in-situ stress conditions, and the depth to groundwater. Liquefaction is typified by a loss of shear strength in the liquefied layers due to rapid increases in pore water pressure generated by earthquake accelerations. Liquefaction typically occurs in areas where the soils below the water table are composed of poorly consolidated, fine to medium-grained, primarily sandy soil.

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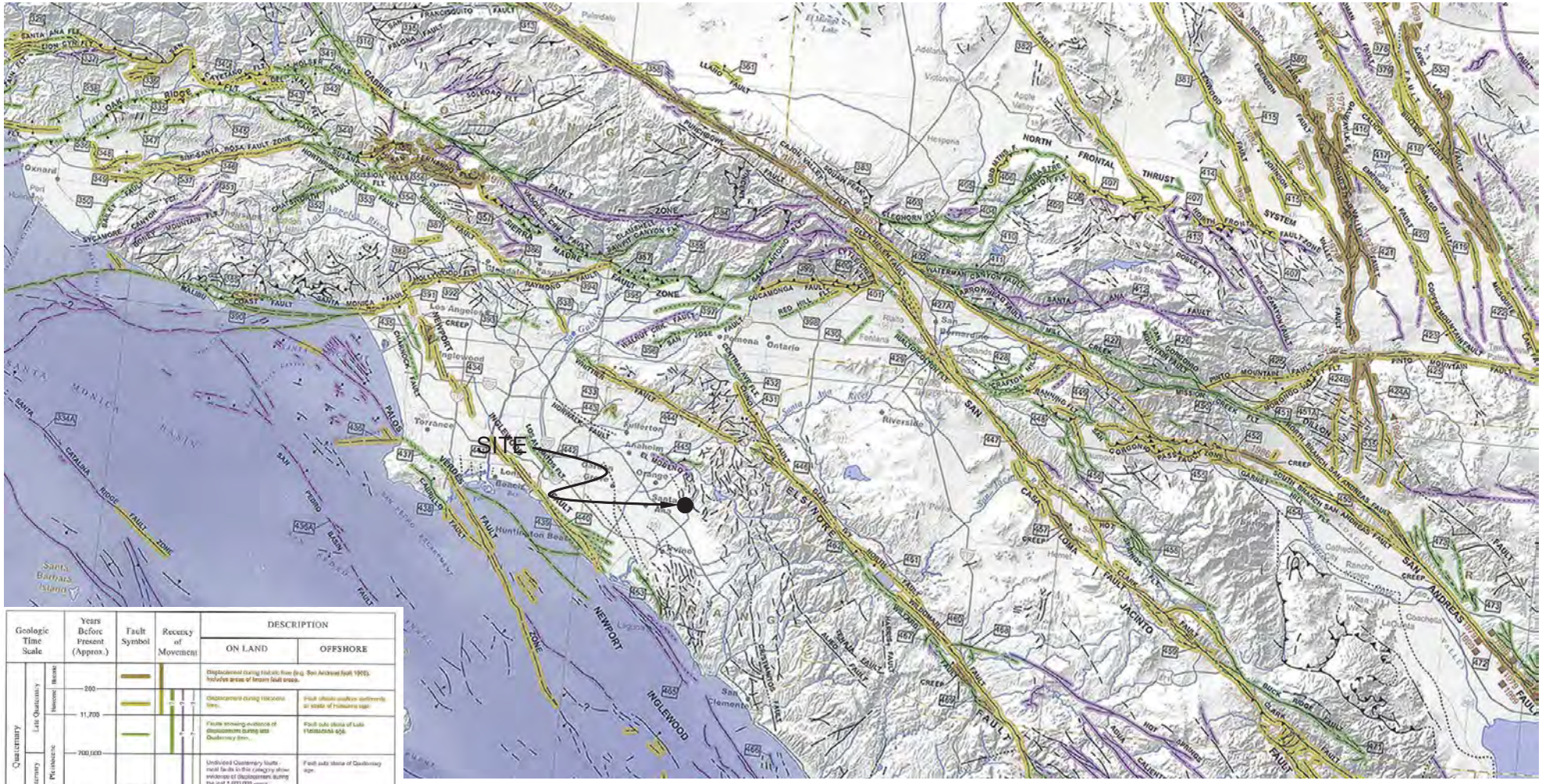

Geologic Time Scale			Years Before Present (Approx.)	Fault Symbol	Recency of Movement	DESCRIPTION	
						ON LAND	OFFSHORE
Quaternary	Late Quaternary	Holocene	200			Displacement during historic time (e.g. San Andreas fault 1906); involves areas of known fault creep.	
		Pleistocene	11,700			Displacement during Holocene time;	Fault offsets seafloor sediments of Holocene age
	Early Quaternary		700,000			Faults showing evidence of displacement during late Quaternary time;	Fault cuts strata of Late Pleistocene age
			1,600,000			Undivided Quaternary faults: most faults in this category show evidence of displacement during the last 1,600,000 years; possible exceptions are faults which regional rocks of undifferentiated Pre-Pleistocene age.	Fault cuts strata of Quaternary age.
Pre-Quaternary			4.6 billion (Age of Earth)			Faults without recognized Quaternary displacement or showing evidence of no displacement during Quaternary time. Not necessarily inactive.	Fault cuts strata of Pliocene or older age.

* Quaternary now recognized as extending to 2.6 Ma (Walker and Geissman, 2009). Quaternary faults in this map were established using the previous 1.6 Ma criterion.

Source: Geocon West, Inc. 2017

Regional Fault Map

Figure 10

Ranch Hills Community

N W E S

0 12 24 48 Miles

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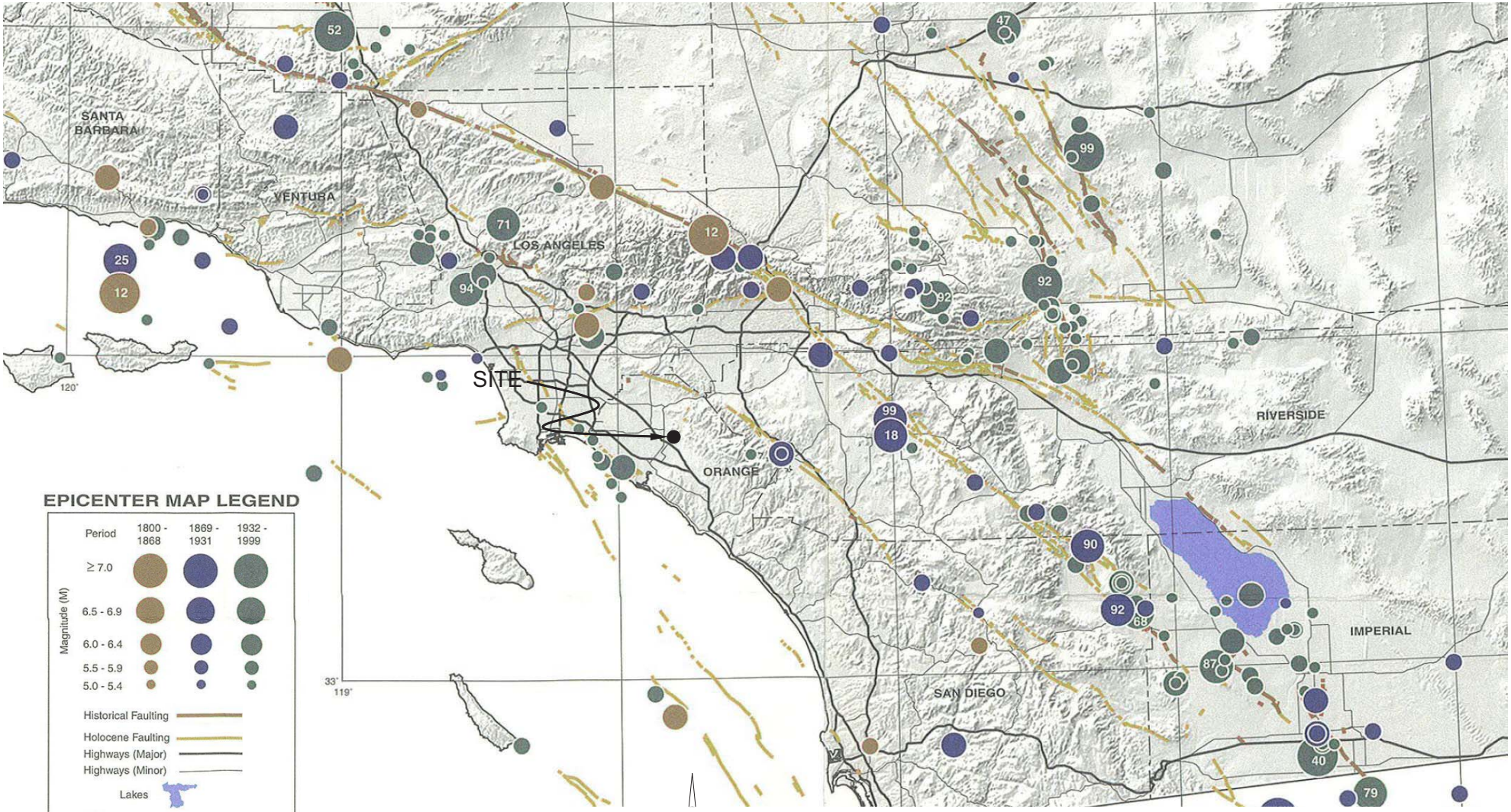

Source: Geocon West, Inc. 2017

Regional Seismicity Map

Figure 11

Ranch Hills Community

N W E S

0 20 40 80 Miles

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The Project site is not located within an area designated as "liquefiable" under the State of California Seismic Hazard Zone Map for the Orange Quadrangle (Geocon 2017). In addition, the Orange County General Plan indicates that the site is not located within an area identified as having a potential for liquefaction (Geocon 2017). The Project site is underlain by Miocene to late Eocene age sedimentary bedrock that is not prone to liquefaction at depths ranging from 5 to 23 feet beneath the existing ground surface; thus, the potential for liquefaction and associated ground deformations beneath the site is very low. Therefore, there would be a less than significant impact related to seismic-related ground failure, including liquefaction, and no mitigation is required.

Response to Impact Question a-*iv*): Less than Significant with Mitigation Incorporated. Earthquake-induced landslides occur in areas where previous landslides have occurred and in areas where the topographic, geologic, geotechnical, and subsurface groundwater conditions contribute to permanent ground displacements. The Project site is elevated above the local groundwater basin and is underlain by sedimentary bedrock units that are not considered water-bearing (Geocon 2017). State historical groundwater maps do not indicate any shallow groundwater beneath the Project site to a depth of at least 50 feet, and no groundwater was encountered in the geotechnical borings at depths ranging from 21.5 to 33 feet (Geocon 2017).

The Project site is not within an area identified under the Orange County General Plan as having a potential for slope instability or located within an area with a potential for seismic slope instability (Geocon 2017). The topography of the site and surrounding vicinity generally slopes to the south-southeast with an elevation ranging from approximately 227 feet to 275 feet above mean sea level (Geocon 2017). There are no known landslides near the Project site. Further, the Project site is not within the path of any known or potential landslides. The potential for slope stability hazards to adversely affect the proposed Project is considered low (Geocon 2017). However, the Geotechnical Investigation recommends further assessment of the underlying bedrock at the Project site during future design phases and prior to grading. Therefore, implementation of MM GEO-1 and SC GEO-1 would further reduce impacts to less than significant levels in relation to landslides.

Response to Impact Question b): Less than Significant Impact. The Project site is fully developed with the Tustin Hills Racquet Club and associated buildings and structures. During construction activities, temporary soil erosion may occur due to soil disturbance and the removal of impervious surfaces. In addition, soil erosion due to rainfall and wind may occur if unprotected soils are exposed and/or left exposed during construction. As the Project site is over one acre of total land area, the Project would be required to obtain coverage under the National Pollutant Discharge Elimination System (NPDES) General Permit for Discharges of Storm Water Associated with Construction Activity. The NPDES permit is required for all projects that include construction activities, such as clearing, grading, and/or excavation that disturb at least one acre of total land area. The Construction General Permit requires implementation of a Storm Water Pollution Prevention Plan (SWPPP), which includes BMPs designed to reduce potential impacts associated with soil erosion. Demonstration of compliance with the NPDES Construction General Permit is required prior to issuance of a grading and/or building permits (see SC HWQ-1 provided in Section 3.10, Hydrology and Water Quality). Therefore, compliance with the NPDES General Permit, as well as implementation of the SWPPP, would reduce potential construction impacts associated related to soil erosion to less than significant levels.

Currently, the Project site is 32.6 percent pervious and 67.4 percent impervious. Following completion of the proposed Project, the site would be 40.3 percent pervious and 59.7 percent impervious. The proposed Project would increase the amount of pervious surface at the Project site (see Appendix G, Preliminary

Priority Project WQMP). However, the proposed Project would incorporate landscaping of pervious surfaces, including the use of jute or mesh products on slope faces prior to planting. As further discussed in Section 3.10, appropriate operational Best Management Practices (BMPs) have been incorporated into the site design to reduce the potential for erosion and the transport of sediment off site. Long-term, the Project's contribution to erosion of channels downstream is expected to be less than significant because the "post development" stormwater runoff volume would be less than the existing condition. This is due in large part to the decrease in the amount of impervious area on the site after Project development. Therefore, impacts related to soil erosion due to construction and operation of the proposed Project would be less than significant and mitigation is not required.

Response to Impact Question c): Less than Significant with Mitigation Incorporated. Based on the geotechnical subsurface exploration performed by Geocon on April 13, 2017 (five borings drilled to depths ranging from 18.5 to 33.5 feet), and review of published geologic maps of the area, the Project site is underlain by artificial fill and Holocene age alluvial deposits, underlain by early Miocene to late Eocene age sedimentary bedrock of the undifferentiated Vaqueros and Sespe Formations (Geocon 2017). Artificial fill was encountered during the Geotechnical Investigation at a maximum depth of 8 feet below existing ground surface (Geocon 2017). The artificial fill is likely the result of past grading or construction activities and are concentrated in the southeast portion of the Project site, overlying a former drainage channel (Geocon 2017). Holocene age alluvium was encountered beneath the fill consisting of various sands, silts, and clay.

As discussed previously (see response to question a (iv) above), the Project site is not within an area identified under the Orange County General Plan as having a potential for slope instability or located within a site as identified as having a potential for seismic slope instability (Geocon 2017). The topography of the site and surrounding vicinity generally slopes to the south-southeast with an elevation ranging from approximately 227 feet to 275 feet above mean sea level (Geocon 2017). There are no known landslides near the Project site. Further, the Project site is not within a path of any known or potential landslides. The potential for slope stability hazards to adversely affect the proposed Project is considered low (Geocon 2017). Similarly, the site is not located on a geologic unit or soil that would be subject to liquefaction (see response to question a (iii) above).

The Geotechnical Investigation concludes that the Project is feasible from a geotechnical standpoint, provided the recommendations in the investigation are incorporated into the design and construction of the proposed Project (MM GEO-1) including recommendations related to excavation, compaction, and foundations. Additionally, Project construction would be required to comply with the CBC and applicable building standards. Therefore, the Project's potential impacts related to unstable soils, resulting in onsite or offsite landslide, lateral spreading, subsidence, liquefaction or collapse, would be less than significant with implementation of MM GEO-1 and compliance with County regulations.

Response to Impact Question d): Less than Significant with Mitigation Incorporated. The Geotechnical Investigation identified that the upper 5 feet of existing site soils encountered are considered to have a "medium" expansive potential and are classified as "expansive" based on the 2016 California Building Code (CBC) Section 1803.5.3. Standard design and construction measures associated with the slab and foundation subgrade would ensure impacts would be less than significant. Further design level assessment of foundation design is incorporated in the MM GEO-1.

As indicated above, the Geotechnical Investigation concludes that the Project is feasible from a geotechnical standpoint, provided the recommendations in the investigation are incorporated into the

design and construction of the proposed Project (MM GEO-1) including recommendations related to excavation, compaction, and foundations. Additionally, Project construction would be required to comply with the CBC and applicable building standards. Therefore, the Project's impacts related to expansive soil resulting in direct or indirect risks to life or property would be less than significant with implementation of MM GEO-1 and compliance with County regulations.

Response to Impact Question e): No Impact. The Project site is currently served by the East Orange County Water District's municipal sewer system. Therefore, the proposed Project would not include the use of septic tanks or alternative wastewater disposal systems. Therefore, no impacts would result and no mitigation is needed.

Response to Impact Question f): Less Than Significant Impact. The Project site is in the center of the fully developed Tustin Hills Racquet Club and no native soils remained at the surface of the site. The Project site has been previously graded and disturbed; however, the possibility exists that as yet unidentified paleontological sites are present below the artificial fill.

The underlying bedrock sediments at the Project site are categorized as having high paleontological sensitivity. There is the potential to uncover unknown paleontological resources during ground-disturbing activities. According to the geotechnical report, excavation for the Project would extend more than 8 feet below ground surface. Artificial fill deposits on the site range between 2.5 to 8 feet below ground surface, thickening toward the southeast. Grading will likely extend into Quaternary Alluvium and possibly Sespe/Vaqueros Formation bedrock, which have a potential to yield paleontological resources. The proposed Project would implement SC CUL-2 (Standard Condition A04) which requires monitoring of grading and excavation activities in the native soils and salvage of fossils should they be found on-site. If the paleontological resources discovered during construction are found to be significant, the paleontologist shall determine appropriate actions, in cooperation with the applicant and the County, to ensure proper exploration and/or salvage. With the implementation of the standard conditions, the Project's potential impacts to paleontological resources would be less than significant.

There are no unique geologic features on the Project site. Therefore, the Project is not expected to directly or indirectly destroy a unique paleontological resource or site or unique geologic feature.

Mitigation Program

In addition to SC GEO-1 (Standard Condition G01) and SC CUL-2 (Standard Condition A04), the following mitigation measure is required.

MM GEO-1 Prior to approval grading plans, the Applicant shall demonstrate, to the satisfaction of the Manager, Building and Safety, that the recommendations in the *Geotechnical Investigation* for the *Property Transaction and Proposed Single Family Residential Tract Development 11782 Simon Ranch Road Santa Ana, California* (dated May 6, 2017, and prepared by Geocon West, Inc) and in any future geotechnical reports have been fully and appropriately incorporated. These recommendations include, but are not limited to, the following geotechnical areas:

- General
- Soil and Excavation Characteristics
- Minimum Resistivity, pH, and Water-Soluble

- Grading
- Slope Construction
- Shrinkage
- Foundation Design
- Foundation Settlement
- Miscellaneous Foundations
- Lateral Design
- Concrete Slabs-on-Grade
- Preliminary Pavement Recommendations
- Retaining Walls
- Retaining Wall
- Temporary Excavations
- Stormwater Infiltration
- Surface Drainage
- Plan Review

References

Geocon West, Inc (Geocon). 2017 (May 6). *Geotechnical Investigation Property Transaction and Proposed Single Family Residential Tract Development 11782 Simon Ranch Road Santa Ana, California* [Appendix E].

Whistler, David P., and E. Bruce Lander. "Chapter 11: New Late Uintan to Early Hemingfordian Land Mammal Assemblages from the Undifferentiated Sespe and Vaqueros Formations, Orange County, and from the Sespe and Equivalent Marine Formations in Los Angeles, Santa Barbara, and Ventura Counties, Southern California." *Bulletin of the American Museum of Natural History* (2003): 231-268.

3.8 Greenhouse Gas Emissions

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

Introduction

This section evaluates potential impacts to Greenhouse Gas (GHG) Emissions that could result from Project implementation. Analysis in this section is based on the existing environmental setting conditions, and information sources identified in this section. Responses to the impact questions listed above are provided below. The County of Orange has determined, pursuant to the discretion afforded by Sections 15064.4(a) and 15064.4(b) of the State CEQA Guidelines, that the impact of the Project's GHG emissions be assessed based on the methodologies proposed by SCAQMD's GHG CEQA Significance Threshold Working Group.

Short-Term Construction

Relevant elements of the proposed Project related to the analysis of potential construction impacts related to greenhouse gas emission include (1) demolition of on-site tennis courts, buildings, asphalt, and pavement, which would require export of demolition and construction debris; (2) site preparation activities to remove vegetation from the site; (3) on-site grading activities, which are expected to be balanced on-site; (4) trenching activities; (5) construction of 37 units; (6) architectural coating of dwelling units; and (7) paving activities for asphalt and pavement. Construction of the Project is anticipated to occur for 2 years and 2 months.

Long-Term Operations

Operational emissions are comprised of area, energy, and mobile source emissions associated with long-term occupancy of the Project.

Response to Impact Question a): Less than Significant Impact. In developing methods for GHG impact analysis, there have been suggestions of quantitative thresholds, often referred to as screening levels, which define an emissions level below which it may be presumed that climate change impacts would be less than significant. Neither the SCAQMD nor the County of Orange has adopted a significance threshold for the GHG emissions from non-industrial development projects.

On December 5, 2008, the SCAQMD Governing Board adopted the staff proposal for a tiered threshold approach wherein Tier 1 determines if a project qualifies for an applicable CEQA exemption; Tier 2 determines consistency with GHG reduction plans; and Tier 3 proposes a numerical screening value as a threshold (SCAQMD 2008). At their September 28, 2010, meeting, the Working Group suggested a Tier 3 threshold of 3,000 metric tons of carbon dioxide equivalent ($MTCO_2e$) per year for all land use types. In the absence of adopted thresholds, the Tier 3 threshold (3,000 $MTCO_2e$) is used for this analysis (SCAQMD 2008). It is noted that the use of the Tier 3 threshold was selected for the proposed Project because it is located in the South Coast Air Basin and these thresholds are based on the best available information and data at the time of preparation of this document. The development of project-level thresholds in accordance with CEQA is an ongoing effort at the State, regional, and County levels, and significance thresholds may differ for future projects based on new or additional data and information that may be available at that time for consideration.

Based on the proposed construction activities described above, the principal source of construction GHG emissions would be internal combustion engines of construction equipment, on-road construction vehicles, and workers' commuting vehicles. GHG emissions from construction activities were obtained from the CalEEMod model, described above. The estimated construction GHG emissions for the Project would be 840 $MTCO_2e$, as shown in Table 16.

Table 16: Estimated Greenhouse Gas Emissions From Construction

Source	Emissions ($MTCO_2e$)
2020	127
2021	387
2022	326
Total	**840**

$MTCO_2e$: metric tons of carbon dioxide equivalent

Notes:
- Totals may not add due to rounding variances.
- Detailed calculations in Appendix A.

As stated in Section 3.3, mobile source emissions are based on estimated Project-related trip generation forecasts, as contained in the Project traffic impact analysis (Appendix I-1). Overall, the proposed Project would generate 205 fewer trips per day than the existing racquet club uses, which include 11 tennis courts and a banquet/special events facility. The Project would generate 349 average daily trips (ADTs), whereas the existing racquet club uses are estimated to generate 554 ADTs (RK Engineering Group, Inc. 2020). Operational GHG emissions would come primarily from electricity and water consumption; natural gas for space and water heating; and gasoline-powered landscaping and maintenance equipment. Estimated annual Project operational GHG emissions are shown in Table 17.

Table 17: Estimated Annual Greenhouse Gas Emissions from Project Operation

Source	Emissions ($MTCO_2e$/yr.)
Area	8
Energy	103
Mobile*	0
Waste	9
Water	19
Total	138

$MTCO_2e$/yr.: metric tons of carbon dioxide equivalent per year

* Due to the net reduction in trips as a result of the Project, there would be no net mobile emissions.

Notes:

- Totals may not add due to rounding variances.
- Detailed calculations in Appendix A.

Because impacts from construction activities occur over a relatively short period of time, they contribute a relatively small portion of the overall lifetime project GHG emissions. In addition, GHG emission reduction measures for construction equipment are relatively limited. The SCAQMD recommends that construction emissions be amortized over a 30-year project lifetime so that GHG reduction measures address construction GHG emissions as part of the operational GHG reduction strategies (SCAQMD 2008). Therefore, construction and operational emissions are combined by amortizing the construction over an assumed 30-year project lifetime and adding the annualized construction emissions to the annual operational emissions. This combination is shown in Table 18 using the Project emissions.

Table 18: Estimated Total Project Annual Greenhouse Gas Emissions

Source	Emissions ($MTCO_2e$/yr[a])
Construction Amortized	28[a]
Operations (Table 16)	138
Total [b]	**166**

MTCO2e/yr.: metric tons of carbon dioxide equivalent per year

[a] Total derived by dividing construction emissions (see Table 15) by 30.

[b] Total annual emissions are the sum of amortized construction emissions and operational emissions.

It is noted that there are no established applicable quantitative federal, State, regional, or local CEQA significance criteria for GHG emissions for residential development projects in the SoCAB. The SCAQMD has proposed, but not adopted, a threshold of 3,000 $MTCO_2e$ per year for non-industrial land use projects. As shown, the estimated GHG emissions from the Project would be substantially less than this suggested threshold. Therefore, the Project's GHG impact would be less than significant and no mitigation is required.

Response to Impact Question b): Less than Significant Impact. The SCAQMD and the County of Orange have not adopted standards for the purpose of reducing GHG emissions. On June 1, 2005, the California Governor signed Executive Order S-3-05, which calls for a reduction in GHG emissions to year 2000 levels by 2010, to year 1990 levels by 2020, and to 80 percent below 1990 levels by 2050. The principal overall State plan and policy adopted for the purpose of reducing GHG emissions is Assembly Bill (AB) 32 (California Global Warming Solutions Act of 2006). AB 32 establishes regulatory, reporting, and market mechanisms to achieve quantifiable reductions in GHG emissions and establishes a cap on statewide GHG emissions. The quantitative goal of AB 32 is to reduce GHG emissions to 1990 levels by 2020, through its 2008 Scoping Plan. In 2016, the Legislature passed Senate Bill 32, which codifies a 2030 GHG emissions reduction target of 40 percent below 1990 levels. With SB 32, the Legislature passed companion legislation Assembly Bill 197, which provides additional direction for developing the Scoping Plan.

Senate Bill (SB) 375, signed in September 2008, aligns regional transportation planning efforts, regional GHG reduction targets, and land use and housing allocations. SB 375 requires Metropolitan Planning Organizations (MPO) to adopt a sustainable communities strategy or alternative planning strategy that will address land use allocation in their regional transportation plans. SB 375 is being addressed at the State and regional levels, and the principles of SB 375 have been incorporated in SCAG's 2016-2040 RTP/SCS.

California Executive Order B-30-15 set an "interim" statewide emission target to reduce GHG emissions to 40 percent below 1990 levels by 2030 and directed State agencies with jurisdiction over GHG emissions to implement measures pursuant to their statutory authority to achieve this 2030 target and the 2050 target of 80 percent below 1990 levels.

As discussed above the State policy and standards adopted for the purpose of reducing GHG emissions that are applicable to the proposed Project are Executive Order S-3-05, AB 32, the California Global Warming Solutions Act of 2006, and SB 32. The quantitative goal of these regulations is to reduce GHG emissions to 1990 levels by 2020 to 80 percent below 1990 levels by 2050, and for SB 32, to 40% below 1990 levels by 2030. Statewide plans and regulations (such as GHG emissions standards for vehicles, the Low Carbon Fuel Standard, Cap-and-Trade, and renewable energy) are being implemented at the statewide level, and compliance at a project level is not addressed. Therefore, the proposed Project does not conflict with these plans and regulations. However, for purposes of this analysis, a consistency analysis is provided in Table 19 for the applicable portions of the Scoping Plan Reduction Measures (CARB 2008). The Project is consistent with most of the strategies, while others are not applicable to the Project.

Table 19: Scoping Plan Measures Consistency Analysis

Scoping Plan Reduction Measure	Project Consistency
1. California Cap-and-Trade Program Linked to Western Climate Initiative Partner Jurisdictions Implement a broad-based California cap-and-trade program to provide a firm limit on emissions. Link the California cap–and-trade program with other Western Climate Initiative Partner programs to create a regional market system to achieve greater environmental and economic benefits for California. Ensure California's program meets all applicable AB 32 requirements for market-based mechanisms.	**Not Applicable**. The Cap and Trade program has begun. However, this Project is not targeted by the cap-and-trade system regulations, and that program is therefore not applicable to this Project.
2. California Light-Duty Vehicle Greenhouse Gas Standards Implement adopted Pavley standards and planned second phase of the program. Align zero-emission vehicle, alternative and renewable fuel and vehicle technology programs with long-term climate change goals.	**Not applicable**. This is a Statewide measure that cannot be implemented on a project level, but the standards for light-duty vehicles would be applicable for light-duty vehicles that access the Project site.
3. Energy Efficiency Maximize energy efficiency building and appliance standards, and pursue additional efficiency efforts including new technologies, and new policy and implementation mechanisms. Pursue comparable investment in energy efficiency from all retail providers of electricity in California (including both investor-owned and publicly-owned utilities).	**Consistent**. This measure is for the State to increase its energy efficiency standards. However, the Project would be consistent with this measure, because it would be required as applicable to comply with 2019 Title 24 energy efficiency standards. The standards encourage demand responsible technologies, such as battery storage and heat pump water heaters to improve the buildings' thermal envelope through high-performance attics, walls, and windows.
4. Renewables Portfolio Standard Achieve 33 percent renewable energy mix statewide.	**Not Applicable**. This measure is for the State to increase its renewable use statewide. However, Southern California Edison (SCE), the electricity provider for the site, is required, through Senate Bill (SB) 2 (1x) to achieve a 33 percent renewable energy mix by 2020.
5. Low Carbon Fuel Standard Develop and adopt the Low Carbon Fuel Standard.	**Not applicable**. This is a statewide measure that cannot be implemented at the Project level.
6. Regional Transportation-Related Greenhouse Gas Targets Develop regional greenhouse gas emissions reduction targets for passenger vehicles.	**Not applicable**. This is a statewide measure. The Project is not related to developing GHG emissions reduction targets for passenger vehicles.
7. Vehicle Efficiency Measures Implement light-duty vehicle efficiency measures.	**Not applicable**. This is a statewide measure that cannot be implemented on a Project level, but the standards for light-duty vehicles would be applicable for light-duty vehicles that access the Project site.

Table 19: Scoping Plan Measures Consistency Analysis

Scoping Plan Reduction Measure	Project Consistency
8. Goods Movement Implement adopted regulations for the use of shore power for ships at berth. Improve efficiency in goods movement activities.	**Not Applicable**. The Project does not propose any changes to goods movement activities, including maritime, intermodal facilities or forms of transportation.
9. Million Solar Roofs Program Install 3,000 MW of solar-electric capacity under California's existing solar programs.	**Consistent**. This measure is for the State to increase solar throughout California, which is being completed by electricity providers and existing solar programs. The Project would comply with 2019 Title 24 standards as applicable for the proposed development.
10. Medium/Heavy-Duty Vehicles Adopt medium and heavy-duty vehicle efficiency measures.	**Not applicable.** This is a statewide measure that cannot be implemented on a Project level, but the standards for medium and heavy-duty vehicles would be applicable for medium- and heavy-duty vehicles that access the Project site, such as for vendor trips during construction or for deliveries during operations of the Project.
11. Industrial Emissions Require assessment of large industrial sources to determine whether individual sources within a facility can cost-effectively reduce greenhouse gas emissions and provide other pollution reduction co-benefits. Reduce greenhouse gas emissions from fugitive emissions from oil and gas extraction and gas transmission. Adopt and implement regulations to control fugitive methane emissions and reduce flaring at refineries.	**Not applicable.** This measure would apply to the direct GHG emissions at major industrial facilities emitting more than 500,000 $MTCO_2e$ per year. The Project is a residential land use development project that would generate less than 3,000 $MTCO_2e$/yr (see Table 18).
12. High Speed Rail Support implementation of a high speed rail system.	**Not applicable.** This is a Statewide measure that cannot be implemented by a Project applicant or lead agency. The Project would not prevent implementation of a high speed rail.
13. Green Building Strategy Expand the use of green building practices to reduce the carbon footprint of California's new and existing inventory of buildings.	**Consistent**. The Project would comply with the California Energy Code (CEC) as applicable through compliance with Title 24 building standards and would therefore incorporate applicable energy efficiency features designed to reduce energy consumption.
14. High Global Warming Potential Gases Adopt measures to reduce high global warming potential gases.	**Consistent**. This measure is applicable to the high global warming potential gases that would be used by sources with large equipment (such as in air conditioning). The Project would be required to comply with all CARB requirements for the Stationary Equipment Refrigerant Management Program.

Table 19: Scoping Plan Measures Consistency Analysis

Scoping Plan Reduction Measure	Project Consistency
15. Recycling and Waste Reduce methane emissions at landfills. Increase waste diversion, composting and other beneficial uses of organic materials, and mandate commercial recycling. Move toward zero-waste.	**Consistent**. The Project would reduce waste with implementation of State-mandated recycling and reuse mandates for construction and operations activities, including compliance with the CALGreen code.
16. Sustainable Forests Preserve forest sequestration and encourage the use of forest biomass for sustainable energy generation.	**Not applicable.** The Project is not in a forested area, and therefore, preservation of on-site forest biomass is not applicable.
17. Water Continue efficiency programs and use cleaner energy sources to move and treat water.	**Not applicable.** This measure is for State and local agencies.
18. Agriculture In the near-term, encourage investment in manure digesters and at the five-year Scoping Plan update determine if the program should be made mandatory by 2020.	**Not applicable.** The Project site is not designated for agricultural use. No grazing or other agricultural activities that could generate manure are proposed to occur at the Project site.

The County of Orange has not yet developed a GHG reduction plan, such as a Climate Action Plan, and has not adopted regulations for the purpose of reducing GHGs applicable to this Project.

As shown in Table 19 above, the Project is consistent with applicable strategies of the AB 32 Scoping Plan Reduction Measures, while others are not applicable to the project. The proposed Project would be built to meet the current applicable Title 24 Energy Efficiency Standards for Residential and Nonresidential Buildings (*California Code of Regulations* [CCR], Title 24, Part 6) and the applicable California Green Building Standards (24 CCR 11). The proposed Project would be developed in compliance with the requirements of these regulations.

The Project would not generate GHG emissions, either directly or indirectly, that may have a significant impact on the environment and would not conflict with an applicable plan, policy, or regulation adopted for the purpose of reducing the emissions of GHGs. The impact would be less than significant, and no mitigation is required.

Mitigation Program

No significant GHG emission impacts were identified; therefore, no mitigation is required.

References

California Air Resources Board (CARB). 2008 (December). Climate Change Scoping Plan. Sacramento, CA: CARB. https://ww3.arb.ca.gov/cc/scopingplan/document/adopted_scoping_plan.pdf.

California Energy Commission. 2018. 2019 Building Energy Efficiency Standards. Sacramento, CA: CEC. https://www.energy.ca.gov/title24/2019standards/documents/2018_Title_24_2019_Building_Standards_FAQ.pdf.

RK Engineering Group, Inc. 2020 (February 24). 11782 Simon Ranch Road Trip Generation Analysis, County of Orange. Newport Beach, CA: RK Engineering Group, Inc.

South Coast Air Quality Management District (SCAQMD). 2008 (December 5). PROPOSAL: Interim CEQA GHG Significance Threshold for Stationary Sources, Rules and Plans. Diamond Bar, CA: SCAQMD. http://www.aqmd.gov/docs/default-source/ceqa/handbook/greenhouse-gases-(ghg)-ceqa-significance-thresholds/ghgboardsynopsis.pdf?sfvrsn=2.

3.9 Hazards and Hazardous Materials

Would the project:	Potentially Significant Impact	Less than Significant With Mitigation Incorporated	Less than Significant Impact	No Impact
a) Create a significant hazard to the public or the environment through the routine transport, use, or disposal of hazardous materials?	☐	☐	☒	☐
b) Create a significant hazard to the public or the environment through reasonably foreseeable upset and accident conditions involving the release of hazardous materials into the environment?	☐	☐	☒	☐
c) Emit hazardous emissions or handle hazardous or acutely hazardous materials, substances, or waste within one-quarter mile of an existing or proposed school?	☐	☐	☒	☐
d) Be located on a site which is included on a list of hazardous materials sites compiled pursuant to Government Code Section 65962.5 and, as a result, would it create a significant hazard to the public or the environment?	☐	☐	☐	☒
e) For a project located within an airport land use plan or, where such a plan has not been adopted, within two miles of a public airport or public use airport, would the project result in a safety hazard or excessive noise for people residing or working in the project area?	☐	☐	☐	☒
f) Impair implementation of or physically interfere with an adopted emergency response plan or emergency evacuation plan?	☐	☐	☒	☐

Would the project:	**Potentially Significant Impact**	**Less than Significant With Mitigation Incorporated**	**Less than Significant Impact**	**No Impact**
g) Expose people or structures, either directly or indirectly, to a significant risk of loss, injury or death involving wildland fires?	☐	☐	☒	☐

Introduction

This section evaluates potential impacts to Hazards and Hazardous Materials that could result from Project implementation. Analysis in this section is based on the existing environmental setting conditions, and information sources identified in this section. The information in this section has been compiled from the Environmental Data Resources Inc. (EDR) search conducted on November 7, 2017 and from the Phase I Environmental Site Assessment (ESA) Report prepared on April 19, 2017 (see Appendices F-1 and F-2, respectively). The main components and objectives of the Phase I ESA include a review of the physical setting references related to topographic, geologic, and hydrogeologic characteristics of the Project site and vicinity; a review of regulatory agency records for identification of 'recognized environmental conditions' (RECs) as defined by the American Society for Testing and Materials (ASTM) at or potentially affecting the Project site; a review of historical references to assess the previous uses of the Project site and surrounding area including aerial photographs, topographic maps, and city directories; and a Project site reconnaissance to observe site conditions and activities for evidence of RECs (offsite properties and features were viewed solely from the vantage of the Project site and public viewpoints). The findings of the EDR Report and the Phase I ESA are incorporated in the following analyses.

<u>Regulatory Requirements</u>

RR HAZ-1 Transport of materials deemed as hazardous must comply with the requirements of Title 22, Division 4.5 of the *California Code of Regulations*, the U.S. Department of Transportation regulations in the *Code of Federal Regulations* (specifically, Title 49, Hazardous Materials Transportation Act and Title 40, Part 263, Subtitle C of Resource Conservation and Recovery Act), California Department of Transportation (Caltrans) standards, and Occupational Safety and Health Administration (OSHA) standards.

RR HAZ-2 Prior to issuance of a demolition permit for any buildings or facilities, building materials shall be assessed by a qualified Environmental Professional as defined in Section 312.10 of 40 CFR Part 312 for the presence of lead-based paint (LBP), asbestos-containing materials (ACM), and other common hazardous building materials (e.g., polychlorinated biphenyl [PCB]-containing lighting ballasts and mercury-containing light tubes and switches). If determined to be present, the Applicant shall prepare an abatement plan for their removal and safe transport in compliance with State and federal regulations, including Occupational Safety and Health Administration (OSHA) regulations in the Code of Federal Regulations (specifically Title 29, Part 1926) and South Coast Air Quality Management District (SCAQMD) Rule 1403. The abatement plan shall meet the satisfaction of the Manager, Orange County Health Care Agency (OCHCA)/Hazardous Materials Program.

Response to Impact Question a): Less than Significant Impact. Implementation of the proposed Project would not involve the routine storage or use of hazardous materials, beyond what is routinely associated with residential uses. The construction phase would require the use of common chemicals (e.g., fuels, lubricants, paints, and solvents) for the operation of vehicles and construction equipment and the construction process. Given the age of the existing facilities, it is possible asbestos and lead-based paint could be present in the building materials. As discussed below under Impact Question b), prior to demolition, testing for these materials would be required and, if present, the materials would need to be transported off the site in compliance with appropriate regulations (see RR HAZ-1). Adherence to existing regulations would ensure compliance with safety standards related to the use and storage of hazardous materials as well as the safety procedures mandated by applicable federal, State, and local laws and regulations.

Over the long-term, hazardous materials would be limited to commercially available cleaning products, landscaping chemicals and fertilizers, and various other commercially available substances, which would be used at private residences and the companies responsible for maintenance of the common areas. Handling of these materials would be in compliance with guidelines to minimize health risks to the public associated with hazardous materials. Therefore, impacts associated with hazards to the public or the environment through the routine transport, use, or disposal of hazardous materials or reasonably foreseeable upset and accident conditions involving release of hazardous material would be less than significant, and no mitigation is required.

Response to Impact Question b): Less than Significant Impact. According to the Phase I Environmental Site Assessment (Appendix F-2), small quantities of hazardous materials, including paints and solvents as well as typical cleaning products and other general maintenance products, were observed in the clubhouse. Hazardous materials observed at the Project site appeared to be stored properly with no evidence of spills or leaks. There were no indications of hazardous waste generation or storage on-site. Additionally, no evidence of current or former aboveground storage tanks or underground storage tanks was observed on the Project site.

A review of historical aerial photographs provided by EDR for the years 1938, 1946, 1952, 1963,1966, 1972, 1977, 1985, 1989, 1994, 2005, 2009, 2010 and 2012 for indications of past land uses that had the potential to have impacted the Project site through the use, storage or disposal of hazardous substances and/or petroleum. No conditions were observed on the aerial photographs that would suggest the potential presence of RECs on the Project site or adjoining or nearby properties.

Due to the age of the existing facilities, it is possible that lead-based paint (LBP), asbestos-containing materials (ACM), and/or other common hazardous building materials may be encountered during demolition. Demolition of buildings and facilities containing ACM that have not been properly abated would cause ACM to become friable and airborne, thus causing a danger from inhalation. Demolition of buildings/structures and facilities containing LBP, PCB-containing lighting ballasts, and mercury-containing thermostats or fluorescent light tubes that have not been properly abated would cause a danger from inhalation, direct absorption through the skin, and ingestion of impacted soils. Although this would be a potentially significant impact, various Federal and State regulations governing testing and abatement of ACM, LBP, PCB-containing lighting ballasts, and/or mercury containing thermostats or fluorescent light tubes require that buildings/structures and facilities containing these materials must be properly tested and abated prior to demolition or renovation for reuse. RR HAZ-2 requires testing and proper abatement of materials deemed hazardous prior to the issuance of a demolition permit.

Based on review of aerial photographs, the Phase I ESA Report identified the Project site was historically used for agricultural purposes, thus, there is a potential that agricultural-related chemicals such as pesticides, herbicides, and fertilizers, may have been used and stored on-site. Agricultural uses (i.e., citrus groves) were present on the Project site from at least 1938 until sometime prior to 1963. However, the Project site has been graded and developed with the current Tustin Hills Racquet Club, so the potential presence of pesticides in soil from past agricultural use is not expected to be a significant environmental concern at present. The site reconnaissance conducted on March 9, 2017 by Geocon Consultants as part of the Phase I ESA revealed no evidence of RECs on the Project site. For these reasons, the possible former use of agricultural chemicals is not expected to represent a significant environmental impact and does not require mitigation.

As noted, the proposed Project would be required to comply with all applicable federal, state, and local laws and regulations pertaining to the transport, use, disposal, handling, and storage of hazardous waste during the construction and demolition phase to reduce the likelihood and severity of accidents during transit. Proper handling of the use and disposal of hazardous materials associated with residential uses would reduce the potential for exposure. Adherence to existing regulations would ensure compliance with regulations pertaining to testing and proper abatement of materials deemed hazardous prior to the issuance of a demolition permit (RR HAZ-2). Therefore, impacts associated with creating 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 would be less than significant, and no mitigation is required.

Response to Impact Question c): Less than Significant Impact. There is one school located within one-quarter mile of the Project site. Ladera Elementary School is located 0.2 mile southeast of the Project site at 2515 Rawlings Way. However, the proposed Project would be required to comply with all applicable federal, state, and local laws and regulations pertaining to the transport, use, disposal, handling, and storage of hazardous waste during the construction phase to reduce the likelihood and severity of accidents during transit. Proper handling of the use and disposal of hazardous materials associated with residential uses would reduce the potential for exposure of the school to hazardous materials. Implementation of the proposed Project would not emit hazardous emissions or handle hazardous or acutely hazardous materials, substances, or waste within one-quarter mile of an existing or proposed school. Therefore, impacts in this regard would be less than significant and no mitigation is required.

Response to Impact Question d): No Impact. According to the EDR report, the site was not identified on any governmental database of locations with known hazardous materials contamination, including the list compiled pursuant to Section 65962.5 of the California Government Code (i.e., Cortese List). No environmental issues or recognized hazards were reported on the site. Therefore, development of the Project site would not result in a hazard to the public or the environment. No impacts in this regard would result, and no mitigation is required.

Response to Impact Question e): No Impact. The proposed Project is not located within an airport land use plan or within two miles of a public airport or public use airport. The nearest public use airports are the John Wayne Airport located approximately 7.15 miles southwest of the Project site, and the Fullerton Municipal Airport located 14 miles northwest of the Project site. The proposed Project would not result in a safety hazard or excessive noise for people residing or working in the project area. Therefore, no impacts associated with public use airports would occur and no mitigation is required.

Response to Impact Question f): Less than Significant Impact. Construction of the proposed Project would not result in temporary road closures or physically interfere with an adopted emergency response plan. One entrance off of Pavillion Drive would be provided to the proposed development which would be used by future residents as an emergency access route to the surrounding roadway network. The proposed Project would not require closure of any major evacuation routes during construction or operation and would not obstruct emergency response plans. The proposed project would require review by the Orange County Fire Authority and other applicable County departments to ensure the proposed Project design provides adequate emergency vehicle access in compliance with the requirements of the County's Zoning Code. For these reasons, the proposed Project would not interfere with an emergency response plan, so its impacts would be considered less than significant, and no mitigation is required.

Response to Impact Question g): Less Than Significant Impact. The proposed Project site is surrounded by existing single-family residential development and is currently developed with the Tustin Hills Racquet Club. According to the Orange County Very High Fire Hazard Severity Zones in Unincorporated LRA (Local Responsibility Areas) map, the Project site is not located within a Very High Fire Hazard Severity Zone (VHFHSZ) (OCPW 2018). The nearest designated Very High Fire Hazard Severity Zones (VHFHSZ) is located within the Peters Canyon Open Space Preserve, located approximately 0.75 miles northeast of the Project site (County of Orange 2011). In addition, the design of the dwelling units would conform to the Uniform Building and Fire Code, which would implement design standards and requirements to reduce potential fire risk. Therefore, proposed Project would result in a less than significant impact to hazards and hazardous materials related to exposure of people or structures to a significant risk of loss, injury or death involving wildland fires, and no mitigation is required.

Mitigation Program

No significant hazard and hazardous materials impacts were identified; therefore, no mitigation is required.

References

Orange County Public Works (OCPW). 2018 (August 16, accessed date). *OC Community Development Very High Fire Hazard Severity Zone Map.* Santa Ana, CA: http://www.ocpublicworks.com/ds/planning/codes/firehazard.

———. 2011 (October). *Very High Fire Severity Zones in Unincorporated LRA Map*. http://www.ocpublicworks.com/civicax/filebank/blobdload.aspx?BlobID=8756.

Environmental Data Resources (EDR). 2017 (November 7) *The EDR Radius Map™ Report with GeoCheck®: Tustin Hills Single Family Residential Development 11782 Simon Ranch Road Santa Ana, CA 92705 (Inquiry Number 5100798.2s).* EDR: Shelton, CT [Appendix F-1].

Geocon West, Inc (Geocon). 2017 (April 17). *Phase I Environmental Site Assessment for Tustin Hills Racquet Club, 11782 Simon Ranch Road, Santa Ana, California* [Appendix F-2].

3.10 Hydrology and Water Quality

Would the project:	**Potentially Significant Impact**	**Less than Significant With Mitigation Incorporated**	**Less than Significant Impact**	**No Impact**
a) Violate any water quality standards or waste discharge requirements or otherwise substantially degrade surface or ground water quality?	☐	☐	☒	☐
b) Substantially decrease groundwater supplies or interfere substantially with groundwater recharge such that the project may impede sustainable groundwater management of the basin?	☐	☐	☒	☐
c) Substantially alter the existing drainage pattern of the site or area, including through the alteration of the course of a stream or river or through the addition of impervious surfaces, in a manner, which would: i) Result in substantial erosion or siltation on- or off-site?	☐	☐	☒	☐
c) Substantially alter the existing drainage pattern of the site or area, including through the alteration of the course of a stream or river or through the addition of impervious surfaces, in a manner, which would: ii) Substantially increase the rate or amount of surface runoff in a manner which would result in flooding on- or offsite?	☐	☐	☒	☐

Would the project:	**Potentially Significant Impact**	**Less than Significant With Mitigation Incorporated**	**Less than Significant Impact**	**No Impact**
c) Substantially alter the existing drainage pattern of the site or area, including through the alteration of the course of a stream or river or through the addition of impervious surfaces, in a manner, which would: 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?	☐	☐	☒	☐
c) Substantially alter the existing drainage pattern of the site or area, including through the alteration of the course of a stream or river or through the addition of impervious surfaces, in a manner, which would: iv) Impede or redirect flood flows?	☐	☐	☐	☒
d) In flood hazard, tsunami, or seiche zones, risk release of pollutants due to project inundation?	☐	☐	☐	☒
e) Conflict with or obstruct implementation of a water quality control plan or sustainable groundwater management plan?	☐	☐	☒	☐

Introduction

This section evaluates potential impacts to Hydrology and Water Quality that could result from Project implementation. Analysis in this section is based on the *County of Orange/Santa Ana Region Preliminary Priority Project Water Quality Management Plan (WQMP) Tract No. 18119, 11782 Simon Ranch Road, Tustin, CA Por. Blk 42 Of Irvine's Subdivision, Mm 1/88*, prepared by Robin B. Hamers & Associates, Inc. dated April 15, 2020 (Appendix G). Responses to the impact questions listed above are provided below.

County Standard Conditions

The following two County Standard Conditions would be applicable to the Project.

SC HWQ-1 Prior to the issuance of any grading or building permits, the applicant shall demonstrate compliance with California's General Permit for Stormwater Discharges Associated with Construction Activity by providing a copy of the Notice of Intent (NOI) submitted to the State Water Resources Control Board and a copy of the subsequent notification of the issuance of a Waste Discharge Identification (WDID) Number; or other proof of filing in a manner meeting the satisfaction of the Manager, Permit Intake. Projects subject to this requirement shall prepare and implement a Stormwater Pollution Prevention Plan (SWPPP). A copy of the current SWPPP shall be kept at the Project site and be available for County review on request. (County Standard Condition WQ04)

SC HWQ-2 Prior to the issuance of any grading or building permit, the applicant shall submit an Erosion and Sediment Control Plan (ESCP) in a manner meeting approval of the Manager, Permit Intake, to demonstrate compliance with the County's NPDES Implementation Program and state water quality regulations for grading and construction activities. The ESCP shall identify how all construction materials, wastes, grading or demolition debris, and stockpiles of soil, aggregates, soil amendments, etc. shall be properly covered, stored, and secured to prevent transport into local drainages or coastal waters by wind, rain, tracking, tidal erosion or dispersion. The ESCP shall also describe how the applicant will ensure that all BMPs will be maintained during construction of any future public rights-of-way. The ESCP shall be updated as needed to address the changing circumstances of the Project site. A copy of the current ESCP shall be kept at the Project site and be available for County review on request. (County Standard Condition WQ05)

Response to Impact Question a): Less than Significant Impact.

Short-Term Water Quality Impacts

Implementation of the proposed Project would involve the following activities: demolition of the existing tennis club, including parking lot, clubhouse, tennis courts and appurtenances; grading of the site for building pads and private streets; and construction of on-site utilities, storm drains, private streets and residences and minor improvements constructed on Simon Ranch Road and Pavillion Drive to extend the utilities into the Project site. Therefore, the Project has the potential to result in short-term impacts to surface water quality from demolition, grading, and other construction-related activities. Storm water runoff from the Project site during construction could contain soils sediments and other pollutants as a result of these activities. Spills or leaks from heavy equipment and machinery, construction staging areas, or building sites could also enter the runoff and typically include petroleum products such as fuel, oil and grease, and heavy metals. Building construction would also involve the use of hazardous materials (e.g., paints, solvents, cleansers) that if not properly handled may enter the storm water runoff.

This portion of the County of Orange is under the jurisdiction of the Santa Ana RWQCB (Region 8), so the Project would be subject to the requirements of the Santa Ana RWQCB and the County of Orange. The Project would be required to be developed consistent with the current Orange County Drainage Area Management Plan (DAMP) and the intent of the non-point source NPDES Permit for Waste Discharge Requirements for the County of Orange, Orange County Flood Control District and the incorporated cities

of Orange County within the Santa Ana Region. The Project would be required to obtain an NPDES Municipal Stormwater Permit for the proposed construction activities. The NPDES permit is required of projects that would involve clearing, grading, and excavation activities disturbing at least one acre of land. In compliance with the NPDES permit in addition to the Santa Ana RWQCB's Santa Ana River Basin Water Quality Control Program, the Project would be required to develop a SWPPP for construction-related activities prior to the start of demolition, grading, or construction.

The primary objective of the SWPPP is to ensure that the responsible party properly constructs, implements, and maintains Best Management Practices (BMPs) to reduce or eliminate pollutants in storm water discharges and authorized non-storm water discharges from the construction site. The SWPPP would include BMPs that would reduce storm water quality impacts by mitigating potential pollutants of concern, including sediments, through prevention, minimization, and treatment on site prior to being discharged. BMPs that are most often used during construction include: watering exposed soils; covering stockpiles of soil; installing sandbags or gravel bag berms to minimize off-site runoff; creating temporary desilting basins; and timing grading to avoid the rainy season.

The requirement to prepare a SWPPP is also reflected in the County Standard Condition WQ04 (see SC HWQ-1, listed above). Additionally, County Standard Condition WQ05 requires the preparation of an ESCP (SC HWQ-2) to demonstrate compliance with the County's NPDES Implementation Program. With implementation of BMPs in the SWPPP and the ESCP prepared for the proposed Project, water impacts during construction would be less than significant. No mitigation is required.

Long-Term Water Quality Impacts

Receiving Waters

The Upper Newport Bay, which is the ultimate receiving water, is classified as an impaired water body and has been placed on the 2016 Clean Water Act (CWA) Section 303(d) list of impaired waters because of excessive concentrations of pollutants ("pollutants of concern"), including chlordane, copper, dichlorodiphenyltrichloroethane (DDT), indicator bacteria, Malathion, nutrients, polychlorinated biphenyls (PCBs), sedimentation/ siltation and toxicity.

When a particular receiving water body is being compromised by degraded water quality, Section 303(d) of the CWA requires identification and listing of that water body as "impaired". Once a water body has been deemed impaired, a Total Maximum Daily Load (TMDL) must be developed for the impairing pollutant(s). A TMDL is an estimate of the total load of pollutants from point, nonpoint, and natural sources that a water body may receive without exceeding applicable water quality standards. Once established, the TMDL allocates the loads among current and future pollutant sources to the water body. Table 20 below shows the 303(d) listing and applicable TMDL for the Project site's receiving waters.

Table 20: Summary of 303(D) List for the Project Receiving Water Bodies

Water Body	Pollutant	TMDL Requirement Status (Date)	Potential Pollutant Sources (Where Identified)
Newport Bay, Upper	Chlordane	5B (2013)	See TMDL Documentation
	Copper	5A (2007)	Marinas and Recreational Boating
	DDT (Dichlorodiphenyltrichloroethane)	5B (2013)	See TMDL Documentation
	Indicator Bacteria	5B (2000)	N/A
	Malathion	5A (2027)	N/A
	Nutrients	5B (1999)	N/A
	PCBs (Polychlorinated biphenyls)	5B (2013)	See TMDL Documentation
	Sedimentation/Siltation	5B (1999)	Agriculture
	Sedimentation/Siltation	5B (1999)	Channel Erosion
	Sedimentation/Siltation	5B (1999)	Construction/Land Development
	Sedimentation/Siltation	5B (1999)	Erosion/Siltation
	Toxicity	5A (2027)	N/A

TMDL: Total Maximum Daily Load; 5A: TMDL required (expected completion date reported in 303[d] list in parentheses); N/A: not applicable; 5B: pollutant being addressed by U.S. Environmental Protection Agency (i.e., an approved TMDL).

Source: SWRCB 2018.

Site Drainage

The storm runoff from the site currently drains southerly by surface flows along a concrete drainage ditch approximately 200 feet to a City of Tustin storm drain system, eventually draining to the San Diego Creek and the Upper Newport Bay, 8.5 miles southwest of the Project site. This same basic drainage pattern would be maintained with the Project. After construction, the storm runoff from the site would be collected in the on-site common driveway/street and be directed to an inlet at the end of the common driveway in the southwest portion of the site. A private on-site storm drain system would convey the flows to the southerly corner of the site from where the runoff would flow as it does now (described above). An underground infiltration trench would be incorporated into the drainage system to treat the runoff. The drainage improvements and treatment BMPs would be maintained by the homeowner's association (HOA).

Although the Project would decrease impervious surface on the Project site, the proposed Project is a priority project under the 2011 Model WQMP therefore, preparation of a project WQMP is required. The Project qualifies as a priority project under the following development category:

> All significant redevelopment projects, projects, where significant redevelopment is defined as the addition of 5,000 or more square feet of impervious surface on an already developed site, and the existing development or redevelopment project falls under another Priority Project Category.

> If the redevelopment results in the addition or replacement of less than 50 percent of the impervious area on-site and the existing development was not subject to WQMP requirement, the numeric sizing criteria discuss below only applies to the addition or replacement area. If the addition or replacement accounts for 50 percent or more of the impervious area, the Project WQMP requirements apply to the entire development.

The Preliminary Priority Project WQMP has been prepared to address storm water pollution from the proposed Project, and the Final WQMP would be approved by the County prior to issuance of a grading permit.

The Preliminary WQMP identifies that the site design practices utilized for the Project includes the following elements:

- **Minimize Impervious Area:** Impervious areas are minimized by the use of multi-story residences and minimum street widths, including limiting sidewalk widths and locations to one side of the street in most places.
- **Maximize Natural Infiltration Capacity:** The project would reduce the amount of impervious surface on the site from 67.4 percent to 59.7 percent. Over 10 percent reduction in impervious surface area allowing more opportunity for surface infiltration.
- **Disconnect Impervious Areas:** Stormwater runoff from the roofs of the proposed residences would be directed to landscaped areas where feasible.
- **Protect Existing Vegetation or Sensitive Areas:** The site has been previously graded and developed. There are no areas of significant existing native vegetation or sensitive areas on site.
- **Re-vegetate Disturbed Areas:** The disturbed areas would be planted with ground cover and a combination of native or drought tolerant plants and trees with a water efficient irrigation system.

Proposed Hydrologic Source Controls (HSC) includes localized on-lot infiltration through the use of French drains and street trees. When combined with the rooftop runoff dispersion, approximately 23 percent of the runoff would be captured by the HSCs. The Design Capture Volume (DCV) for the site would be met with infiltration low impact development (LID) BMPs.

Although the channels downstream of the Project site are susceptible to erosion, the proposed Project would not be considered for Hydrologic Conditions of Concern (HCOC) because “post development” stormwater runoff volumes would be less than on-site existing conditions. This would be, in large part, due to the substantial decrease in the amount of impervious area on the Project site after implementation of the proposed Project. On-site hydro-modification controls would be implemented such that the post-development runoff two-year peak flow rate is reduced from the pre-development runoff two-year peak flow rate. As such, with implementation of the proposed Project, the runoff volume decreases by over 11 percent (see Appendix G, Preliminary Priority Project WQMP). Additionally, with compliance with the Project’s SWPPP during construction and WQMP during operation and post-development (with inclusion of BMPs), the Project’s potential to generate substantial amounts of polluted runoff would be reduced to less than significant levels.

Based on this analysis, it is concluded the Project: would not violate any water quality standards; would not substantially modify area runoff or create or contribute runoff water that would exceed the capacity

of existing systems; and would not degrade water quality by contributing pollutants or discharge. Impacts would therefore be less than significant, and no mitigation is required.

Response to Impact Question b): Less than Significant Impact. Based on the WQMP, the Project site is elevated above the local groundwater basin and is underlain by sedimentary bedrock units that are not considered water-bearing. A review of the Seismic Hazard Zone Report for the Orange Quadrangle indicates there is no available historic or current groundwater data for the site or the immediately surrounding area (see Appendix G, Preliminary Priority Project WQMP). However, no evidence of near surface water was observed during the field investigation, and groundwater was not encountered during field explorations to a maximum depth of 33 feet below the existing ground surface (Appendix E, Geotechnical Investigation). Based on the lack of groundwater in the borings and depth of proposed construction, groundwater is not expected to be encountered during construction or to impact foundation excavations or grading operations. However, it is not uncommon for groundwater levels to vary seasonally or for groundwater seepage conditions to develop where none previously existed, especially in impermeable fine-grained soils which are heavily irrigated or after seasonal rainfall.

The proposed Project would not involve direct withdrawals of groundwater, nor would it interfere with groundwater recharge such that it would result in a net deficit in aquifer volume or lowering of the local groundwater table levels. Domestic water service would be provided by the City of Tustin Water Services Department, as described in Section 3.19, Utilities and Service Systems, with water derived from local wells and imported water supplies. In addition, the Project would result in an increase of pervious area when compared to existing conditions and would not reduce groundwater recharge capabilities. Additionally, the proposed Project would incorporate the use of localized on-lot infiltration (sump areas within landscaping) to promote groundwater recharge. Therefore, the proposed Project would not substantially decrease groundwater supplies or interfere with groundwater recharge, and no mitigation is required.

Response to Impact Question c-*i*): Less than Significant Impact. There are no streams or rivers near the Project site the course of which would be altered by implementation of the proposed Project in a manner that would result in substantial erosion on or off of the site. The storm runoff from the site currently drains by surface flows along a concrete drainage ditch southerly approximately 200 feet to a City storm drain system leading to the San Diego Creek and the Upper Newport Bay, 8.5 miles southwest of the Project site. Implementation of the proposed Project would collect storm runoff in the on-site common driveway/streets to be directed to an inlet at the end of the common driveway in the southwest portion of the site. A private on-site storm drain system will convey the flows to the southerly corner of the Project site and convey the flows to the southerly corner of the site where it would connect to the existing a concrete drainage ditch. A 3,360-sf (80 ft by 42 ft) underground infiltration trench with 6 feet of gravel will be incorporated into the drainage system to treat the runoff. Implementation of the proposed project significantly decrease the amount of impervious area on the Project site. On-site or regional hydro-modification controls would be implemented such that the post-development runoff two-year peak flow rate is reduced from the pre-development runoff two-year peak flow rate (see Appendix G, Preliminary Priority Project WQMP). As such, with implementation of the proposed Project, the runoff volume decreases by over 11 percent.

Additionally, the SWPPP and WQMP would ensure that substantial erosion or siltation would not occur on- or off-site during construction or operation. Project impacts would be less than significant, and no mitigation is required.

Response to Impact Question c-*ii,* c-*iii*): Less than Significant Impact. As discussed previously, the topography of the site and surrounding vicinity generally slopes to the south-southeast. The site elevation ranging from approximately 227 feet to 275 feet above mean sea level with the point at the southerly corner of the Project site. At this point stormwater runoff leaves the Project site through a concrete drainage ditch. The storm runoff from the site currently flows through the ditch south to a City storm drain system leading to the San Diego Creek and the Upper Newport Bay, 8.5 miles southwest of the Project site. Implementation of the proposed Project would collect storm runoff in the on-site common driveway/streets to be directed to an inlet at the end of the common driveway in the southwest portion of the site. A private on-site storm drain system will convey flows to the southerly corner of the site where it will connect to the existing concrete drainage ditch. A 3,360-sf (80 ft by 42 ft) underground infiltration trench with 6 feet of gravel will be incorporated into the drainage system to treat the runoff.

Although the channels downstream of the Project site are susceptible to erosion, the proposed Project would not be considered for Hydrologic Conditions of Concern (HCOC), given that implementation of the Project would reduce stormwater runoff volumes when compared to existing conditions. This would be, in large part, due to the decrease in the amount of impervious area on the Project site after implementation of the proposed Project. On-site or regional hydro-modification controls would be implemented such that the post-development runoff two-year peak flow rate is reduced from the pre-development runoff two-year peak flow rate. As such, with implementation of the proposed Project, the runoff volume decreases by over 11 percent (see Appendix G, Preliminary Priority Project WQMP). Additionally, with compliance with the Project's SWPPP during construction and WQMP during operation and post-development (with inclusion of BMPs), the Project's potential to generate substantial amounts of polluted runoff would be reduced to less than significant levels.

Therefore, the proposed Project would not substantially alter the existing drainage pattern of the site or area resulting in flooding on-or offsite or 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. Impacts are less than significant, and no mitigation is required.

Response to Impact Question c-*iv*): No Impact. According to the FEMA Flood Insurance Rate Map, the Project site is not located within the 100-year flood hazard area (FEMA 2018). According to the Orange County General Plan, Hazards Elements the proposed Project is not located within a 100-year Flood Hazards Zone (County of Orange 2005).

Further, as indicated above in Response 3.10c-*iv*, according to the Preliminary WQMP, although the channels downstream of the Project site are susceptible to erosion, the proposed Project would not be considered for HCOC due to the decrease in stormwater runoff volumes with implementation of the Project when compared to on-site existing conditions. This would be, in large part, due to the substantial decrease in the amount of impervious area on the Project site after implementation of the proposed Project. In addition, on-site hydro-modification controls would be implemented such that the post-development runoff two-year peak flow rate is reduced from the pre-development runoff two-year peak flow rate. As such, with implementation of the proposed Project, the runoff volume decreases by over 11 percent

Additionally, the SWPPP and WQMP would ensure that substantial erosion or siltation would not occur on- or off-site during construction or operation. Therefore, the proposed Project would not result in erosion or siltation that would alter the drainage pattern of the area or impede or redirect flood flows. Impacts would not occur, and no further analysis is required.

Response to Impact Question d): No Impact. As discussed previously, according to the FEMA Flood Insurance Rate Map and Orange County General Plan, Hazards Elements the proposed Project is not located within a 100-year Flood Hazards Zone (FEMA 2018; County of Orange 2005). The Project site is located 3.6 miles southwest of Irvine Lake and the Santiago Dam and 2.1 miles southwest of Peters Canyon Reservoir. According to the General Plan Chapter IX Safety Element Figure IX-9 Prado Dam and Santiago Reservoir Inundation Areas, the Project site is not located within a dam inundation area (County of Orange 2005). In addition, the Project site is located 2.1 miles south of Peters Canyon Reservoir. However, the Public Safety Element of the City of Orange General Plan indicates that the Project site is not located within the inundation hazard area for Peters Canyon Reservoir (City of Orange 2010). In addition, the Project is located over 12 miles northeast of the Pacific Ocean and at an elevation of 240 feet above sea level, so it would not be susceptible to inundation by tsunami. Thus, the proposed Project is not located within a flood hazard, tsunami, or seiche zones. No impacts would result related to the release of pollutants due to project inundation, and no mitigation is required.

Response to Impact Question e): No Impact. As discussed above in Response 3.10a, the Project would be in compliance with applicable water quality regulations for short-term and long-term impacts. Specifically, the Project would be subject to the requirements of the Santa Ana RWQCB and County of Orange. The Project would be required to be developed consistent with the current Orange County Drainage Area Management Plan (DAMP) and the intent of the non-point source NPDES Permit for Waste Discharge Requirements for the County of Orange, Orange County Flood Control District and the incorporated cities of Orange County within the Santa Ana Region. The Project would be required to obtain an NPDES Municipal Stormwater Permit for the proposed construction activities. In compliance with the NPDES permit in addition to the Santa Ana RWQCB's Santa Ana River Basin Water Quality Control Program, the Project would be required to develop a SWPPP for construction-related activities prior to the start of demolition, grading, or construction. The requirement to prepare a SWPPP is also reflected in the County Standard Condition WQ04 (see SC HWQ-1, listed above). Additionally, the proposed Project would be developed in compliance with the County Standard Condition WQ05 (see SC HWQ-2, listed above), which requires the preparation of an ESCP to demonstrate compliance with the County's NPDES Implementation Program.

Furthermore, as indicated above in Response 3.10b, the proposed Project would not involve direct withdrawals of groundwater, nor would it interfere with groundwater recharge such that it would result in a net deficit in aquifer volume or lowering of the local groundwater table levels. Domestic water service would be provided by the City of Tustin Water Services Department, as described in Section 3.19, Utilities and Service Systems, with water derived from local wells and imported water supplies. In addition, the Project would result in an increase of pervious area when compared to existing conditions and would not reduce groundwater recharge capabilities. Additionally, the proposed Project would incorporate the use of localized on-lot infiltration (sump areas within landscaping) to promote groundwater recharge.

Therefore, the Project is not conflict with nor obstructs implementation of a water quality control plan or sustainable groundwater management plan. Impacts are less than significant, and no mitigation is required.

Mitigation Program

No significant impacts pertaining to hydrology and water quality were identified. Therefore, with implementation of SC HWQ-1 and SC HWQ-2, no mitigation is required.

References

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3.11 Land Use and Planning

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

Introduction

This section evaluates potential impacts to Land Use and Planning that could result from Project implementation. Analysis in this section is based on field observations, use of aerial photography, and a review of related planning documents used to document the existing environmental setting conditions, and information sources identified in this section. Responses to the impact questions listed above are provided below.

Response to Impact Question a): No Impact. The Project would not physically divide an established community. Development would occur on site and not present a barrier that would interfere with community cohesion or separate an existing community. The Project proposes a residential community that would be built on a currently occupied private facility (racquet club) in an area surrounded by residential uses. The introduction of the use would not present a barrier to the surrounding single-family residential uses to the north, east, south and west.

Response to Impact Question b): Less than Significant Impact. Several regional and local planning programs such as County of Orange General Plan, the Orange County Zoning Code and Southern California Association of Governments' (SCAG's) regional plans are relevant to the proposed Project. The consistency of these plans with the Project is analyzed in this section.

With respect to regional planning, SCAG is the Metropolitan Planning Organization (MPO) for the Los Angeles, Orange, San Bernardino, Riverside, Ventura, and Imperial Counties. As the designated MPO, the federal government mandates SCAG to prepare plans for growth management, transportation, air quality, and hazardous waste management. In addition, SCAG reviews EIRs for projects of regional significance for consistency with regional plans. The policies and strategies of SCAG's regional planning programs—including the Regional Comprehensive Plan (RCP) and Regional Transportation Plan/Sustainable Community Strategy (RTP/SCS)—are not applicable to the proposed Project because the Project is not regionally significant, as defined by Section 15206 of the CEQA Guidelines (SCAG 2016).

Local plans/programs relevant to the Project and the consistency of the proposed Project with these plans/programs are discussed below, including the County of Orange General Plan and Zoning Code.

County of Orange General Plan

The General Plan is the long-range guide for growth and development in the unincorporated County area. The general plan functions as a guide for the type of community that is desired for the future and provides the means to achieve it. The residential land use categories identify those areas suitable for residential development. Residential uses are divided into categories on the basis of density, relation to the County's street system and to transit, compatibility with the natural terrain, and conformance with the County's residential growth projections. Housing types ranging from rural, large-lot estates in outlying areas to high-density residential units in appropriate urban locales are encouraged (Orange County 2015). The Project site is currently developed as the Tustin Hills Racquet Club and is designated by the Orange County General Plan, Land Use Element Map (Amendment 14-02) as Suburban Residential (1B). According to Table III-1, *Building Intensity/Population Density Standards*, of the County's Land Use Element this designation allows for a wide range of housing types, from estates on large lots to attached dwelling units including townhouses, condominiums, and clustered arrangements. This designation also permits the greatest flexibility for residential development. The Intensity/Density Characteristics and Standards under 1B allow for development of 0.5-18 dwelling units per acre (du/ac), 2.59 persons per du and 1-47 persons per acre. As such, the proposed 37 units (34 single-family townhome units and 3 single-family detached units), which has a density of 6.29 du/ac, is consistent with the General Plan and would not require a change in land use designation.

Orange County Zoning Code

The property is located on a site zoned as A1 "General Agricultural District". The district is established to provide zoning for agriculture, outdoor recreation, and other low intensity uses and further states "It is also intended that this district may be used as an interim zone in those areas which the General Plan may designate for more intensive urban uses in the future" as the County General Plan Land Use Element identifies that agricultural zoning is not an indication of a long-term commitment to specific uses because the General Plan may designate for more intensive urban uses in the future. (County of Orange 2017). Based on the zoning, the proposed single-family townhome units (formally mapped for condominium purposes) are not a permitted use. Thus, a zone plan amendment and VTTM would be required to allow for development of the proposed Project. The proposed Project would include a Zone Change from A1 "General Agricultural" District to R2 (5000) District.

As further discussed in Section 2.0, Project Description, the R2 District development regulations will be further refined and limited by the (5000) designation. A number which designates the minimum area per unit, in square feet, of land area required for each dwelling unit. The project net area would exclude areas such as the private streets and certain easement areas. The PD would establish its own development standards for the R2 (5000). The R2 District also permits the development of PD consistent with the provisions of Zoning Code Section 7-9-110 and subject to the approval of a Use Permit by the Planning Commission. For planned developments, building locations need not satisfy the base R2 district setback regulations but are established by the approved use permit. Because the Zone Change component of the application requires a final action by the Board of Supervisors, for this application the Board will also be the final approving authority for the Use Permit. The proposed residential use for the site which includes a mix of one- and two-story single-family townhome units in cul-de-sac arrangements and three detached units with front and rear yard landscaping, is consistent with the established pattern of residential development in the vicinity of the Project site (refer to Exhibit 4b). In addition, the proposed Project would be in compliance with the General Plan Land Use Element's goals and policies. Upon approval of the requested Zone Change, the proposed project would be consistent with applicable land use plans. Therefore, impacts would be less than significant, and no mitigation is required.

Mitigation Program

No land use and planning impacts to were identified; therefore, no mitigation is required.

References

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3.12 Mineral Resources

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

Introduction

This section evaluates potential impacts to Mineral Resources that could result from Project implementation. Analysis in this section is based on the existing environmental setting conditions, and information sources identified in this section. Responses to the impact questions listed above are provided below.

Response to Impact Question a): No Impact. The Project site is designated by the California Department of Mines and Geology (CDMG) as Mineral Resource Zone (MRZ) 3. MRZ 3 is defined as areas of undetermined mineral resource significance. Additionally, the Department of Conservation Division of Oil, Gas, and Geothermal Resources has not identified oil, gas, or geothermal fields on the site or adjacent to the site. The nearest well, Chevron Well (No. 5-1), is located at Tustin Ranch Road, approximately 1,500 feet south of the site. The well is reported to be plugged and abandoned. Therefore, the development of the project 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 The Project would not result in a loss of availability of a known mineral resource. Therefore, no significant impacts would result, and no mitigation is required.

Response to Impact Question b): No Impact. According to the Orange County General Plan, Resources Element, Mineral Resources Map and Energy Resources Maps, no mineral resources, petroleum resources, or geothermal resources have been identified. Therefore, the development of the 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. Therefore, no significant impacts would result, and no mitigation is required.

Mitigation Program

No impacts to mineral resources were identified; therefore, no mitigation is required.

References

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3.13 Noise

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

Introduction

This section evaluates potential impacts to Noise that could result from Project implementation. Analysis in this section is based on the existing environmental setting conditions, and information sources identified in this section. Responses to the impact questions listed above are provided below. The Project noise calculation worksheets are provided in Appendix H.

Short-Term Construction

Relevant elements of the proposed Project related to the analysis of potential construction impacts related to noise include (1) demolition of on-site tennis courts, buildings, asphalt, and pavement, which would require export of demolition and construction debris; (2) site preparation activities to remove vegetation from the site; (3) on-site grading activities, which are expected to be balanced on-site; (4) trenching activities; (5) construction of 37 units (34 single-family townhome units and 3 single-family detached units); (6) architectural coating of dwelling units; and (7) paving activities for asphalt and pavement. Construction of the Project is anticipated to occur for 2 years and 2 months.

Long-Term Operations

Potential noise impacts associated with long-term operations of the Project would be primarily derived from noise associated with residential development.

Response to Impact Question a): Less than Significant Impact.

Noise and Land Use Compatibility

The Orange County General Plan, Chapter 8: Noise - General Plan Noise Element provides a basis to control and abate environmental noise and protect citizens from excessive exposure (Orange County 2005). In the Noise Element, the County has established exterior and interior noise standards for residential uses, schools, hospitals, and places of worship. Table 21, County of Orange Interior and Exterior Noise Standards, identifies the exterior and interior noise standards established by the County. These guidelines are used to evaluate the proposed Project's compatibility with the ambient noise level.

Table 21: Compatibility Matrix for Land Use and Community Equivalent Levels

Type of Use	65+ dBA CNEL	60 to 65 dBA CNEL
Residential	3a, b, e	2a, e
Commercial	2c	2c
Employment	2c	2c
Open Space		
- Local	2c	2c
- Community	2c	2c
- Regional	2c	2c
Educational Facilities		
- Schools (K through 12)	2c, d, e	2c, d, e
- Preschool, college, other	2c, d, e	2c, d, e
Places of Worship	2c, d, e	2c, d, e
Hospitals		
- General	2a, c, d, e	2a, c, d, e
- Convalescent	2a, c, d, e	2a, c, d, e
Group Quarters	1a, b, c, e	2a, c, e
Hotels/Motels	2a, c	2a, c
Accessory Uses		
- Executive Apartments	1a, b, e	2a, e
- Caretakers	1a, b, c, e	2a, c, e

Notes:
ACTION REQUIRED TO ENSURE COMPATIBILITY
BETWEEN LAND USE AND NOISE FROM EXTERNAL SOURCES
1 = Allowed if interior and exterior community noise levels can be mitigated.
2 = Allowed if interior levels can be mitigated.
3 = New residential uses are prohibited in areas within the 65-decibel CNEL contour from any airport of air station; allowed in other areas if interior and exterior community noise levels can be mitigated. The prohibition against new residential development excludes limited "infill" development within an established neighborhood.

Table 21: Compatibility Matrix for Land Use and Community Equivalent Levels

Type of Use	65+ dBA CNEL	60 to 65 dBA CNEL
STANDARDS REQUIRED FOR COMPATIBILITY OF LAND USE AND NOISE a = Interior Standard: CNEL of less than 45 decibels (habitable rooms only). b = Exterior Standard: CNEL of less than 65 decibels in outdoor living areas. c = Interior Standard: L_{eq} (h)=45 to 65 decibels interior noise level, depending on interior use. d = Exterior Standard: L_{eq} (h) of less than 65 decibels in outdoor living areas. e = Interior Standard: As approved by the Board of Supervisors for sound events of short duration such as aircraft flyovers or individual passing railroad trains. KEY DEFINITIONS Habitable Room– Any room meeting the requirements of the Uniform Building Code or other applicable regulations which is intended to be used for sleeping, living, cooking or dining purposes, excluding such enclosed spaces as closets, pantries, bath or toilet rooms, service rooms, connecting corridors, laundries, unfinished attics, foyers, storage spaces, cellars, utility rooms and similar spaces. Interior – Spaces that are covered and largely enclosed by walls. L_{eq} (h) – The A-weighted equivalent sound level averaged over a period of "h" hours. An example would be L_{eq} (12) where the equivalent sound level is the average over a specified 12- hour period (such as 7:00 a.m. to 7:00 p.m.). Typically, time period "h" is defined to match the hours of operation of a given type of use. Outdoor Living Area – Outdoor living area is a term used by the County of Orange to define spaces that are associated with residential land uses typically used for passive private recreational activities or other noise-sensitive uses. Such spaces include patio areas, barbecue areas, jacuzzi areas, etc. associated with residential uses; outdoor patient recovery or resting areas associated with hospitals, convalescent hospitals, or rest homes; outdoor areas associated with places of worship which have a significant role in services or other noise-sensitive activities; and outdoor school facilities routinely used for educational purposes which may be adversely impacted by noise. Outdoor areas usually not included in this definition are: front yard areas, driveways, greenbelts, maintenance areas, and storage areas associated with residential land uses; exterior areas at hospitals that are not used for patient activities; outdoor areas associated with places of worship and principally used for short-term social gatherings; and outdoor areas associated with school facilities that are not typically associated with educational uses prone to adverse noise impacts (for example, school play yard areas). Source: Orange County General Plan, Noise Element, 2005.		

On Thursday, January 4, 2017, four noise measurements were conducted in the surrounding Project vicinity. As shown in Table 22, Noise Measurement Results, the existing noise levels surrounding the existing Tustin Hills Racquet Club range from 36 to 53 dBA L_{eq}. The Project is proposing to construct 37 single-family townhome units, which would result in a net reduction of trips as compared to the existing uses. The net reduction in ADT between the Project and existing uses is 205 ADT (RK Engineering Group, Inc 2020). A reduction of ADT would decrease daily noise levels within the Project site and vicinity.

According to the Noise Element, noise levels at outdoor living areas should not exceed 65 dBA CNEL. Outdoor living areas are defined as spaces that are associated with residential land uses typically used for passive private recreational activities or other noise-sensitive uses. Such spaces include patio areas, barbecue areas, jacuzzi areas, etc. associated with residential uses. Any backyards and patio areas for the proposed Project that meet the above definition of usable open space would experience noise levels ranging from 36 to 53 dBA L_{eq}. Noise levels are attenuated by a minimum of 25 dBA from exterior to interior conditions with windows closed (National Cooperative Highway Research Program Report 117, Highway Noise: A Design Guide for Highway Engineers, 1971). With the a 25-dBA reduction from the exterior noise levels, this would result in a range of 11 to 28 dBA L_{eq} interior noise level, which is below the Noise Element standards. There would be a less than significant impact associated with noise compatibility for the proposed uses and no mitigation is required.

Table 22: Noise Measurement Results

Receiver Location	Existing Noise Measurement, dBA L_{eq}
Outlook Lane	36
Simon Ranch Road	48
Racquet Hill	42
Willard Avenue	53

Impacts from On-Site Sources to Off-Site Receptors

The County of Orange's Noise Ordinance (Division 6 Noise Control), is designed to control unnecessary, excessive, and annoying sounds from sources on private property by specifying noise levels that cannot be exceeded. Section 4-6-5 and 4-6-6 of the Noise Ordinance defines the interior and exterior noise level limits for noise from one property to adjacent residential land uses, as shown in Table 23, Orange County Noise Standards.

Table 23: Orange County Noise Standards

Receiver Location	Noise Metric	Noise Levels not to be Exceeded in Residential Zone	
		7 a.m. to 10 p.m. (daytime)	10 p.m. to 7 a.m. (nighttime)
Exterior Noise Standards			
30 Minutes/Hour	L(50)	55 dBA	50 dBA
15 minutes/1 hour	L(25)	60 dBA	55 dBA
5 minutes/1 hour	L(8.3)	65 dBA	60 dBA
1 minute/1 hour	L(1.7)	70 dBA	65 dBA
Any period of time	L(max)	75 dBA	70 dBA
Interior Noise Standards			
5 minutes/1 hour	L(8.3)	55 dBA	45 dBA
1 minute/1 hour	L(1.7)	60 dBA	50 dBA
Any period of time	L(max)	65 dBA	55 dBA
Source: County of Orange Zoning Code Division 6, Section 4.6.1.			

Stationary Sources

Operational noise sources associated with the proposed Project would include, but not be limited to mechanical equipment (e.g., HVAC units) and landscape maintenance equipment. HVAC units and other stationary equipment would be selected and installed to comply with Section 4-6-9 of the Orange County Noise Ordinance. Because HVAC units are potentially continuous sources that may operate at night, the interior and exterior Noise Ordinance is applicable to HVAC units. Compliance with the County Noise Ordinance would reduce these impacts to less than significant levels. Noise from landscape maintenance and vehicles would be similar to noise currently occurring in the existing residential neighborhoods and would need to comply with the time of occurrence limitations established within Section 4-6-7i of the County Code. The noise increase would not be substantial, nor would it exceed the Noise Ordinance limits.

Therefore, noise impacts from stationary sources would be less than significant and no mitigation is required.

Construction Noise

The development of the proposed Project would entail construction activities which include noise generated from demolition, grading/excavation and building construction activities. Local residents would be subject to elevated noise levels due to the operation of Project-related construction equipment. Construction activities are carried out in discrete steps, each of which has its own mix of equipment and, consequently, its own noise characteristics. These various sequential phases would change the character of the noise levels surrounding the construction site as work progresses. Construction noise levels reported in the U.S. Environmental Protection Agency's (USEPA's) *Noise from Construction Equipment and Operations, Building Equipment, and Home Appliances* were used to estimate future construction noise levels for the Project (USEPA 1971). Typically, the estimated construction noise levels are governed primarily by equipment that produces the highest noise levels. Construction noise levels for each generalized construction phase (ground clearing/demolition, excavation, foundation construction, building construction, paving, and site cleanup) are based on a typical construction equipment mix for an industrial project and do not include use of atypical, very loud, and vibration-intensive equipment (e.g., pile drivers). Where feasible, the proposed Project would involve on-site material recycling such as the reuse of parking lot pavement for on-site road base. On-site material recycling would require the use of equipment such as a rock crusher. To avoid potential impacts related to dust and noise emissions, this equipment would be placed as far away as possibly feasible from nearby residences.

The degree to which noise-sensitive receptors are affected by construction activities depends heavily on their proximity. Estimated noise levels attributable to the development of the proposed Project are shown in Table 24, Construction Noise Levels at Noise-Sensitive Uses, and calculations are included in the Appendix H, Noise Calculations.

Table 24: Construction Noise Levels at Noise-Sensitive Uses

Construction Phase	Noise Levels (L_{eq} dBA)							
	Residences to the North of the Project site		Residences to the West of the Project site		Residences to the South of the Project site		Residences to the East of the Project site	
	Max (22 ft)	Avg. (330 ft)	Max (17 ft)	Avg (315 ft)	Max (12 ft)	Avg (375 ft)	Max (20 ft)	Avg (241 ft)
Ground Clearing/Demolition	90	67	92	67	95	65	91	69
Excavation (Site Preparation)	95	72	97	72	100	70	96	74
Foundation Construction	88	65	90	65	93	63	89	67
Building Construction	88	65	90	65	93	63	89	67
Paving	95	72	97	72	100	70	96	74

L_{eq} dBA: Average noise energy level; Max: maximum; avg: average; ft: feet

Note: Noise levels from construction activities do not take into account attenuation provided by intervening structures.

Source: USEPA 1971.

Table 24 shows both the maximum and average noise levels for construction equipment. Maximum noise levels represent the noise levels from construction equipment occurring nearest to the noise-sensitive use/receptor. Average noise levels represent the noise exposure to sensitive uses based on the distance to the center of the Project site. Noise levels from general Project-related construction activities would range from 88 to 100 dBA L_{eq} for the maximum noise levels and 63 to 74 dBA L_{eq} for the average noise levels. Noise level reductions from intervening structures (e.g., masonry walls). The Noise Ordinance states that Noise sources associated with construction, repair, remodeling, or grading of any real property are exempt from the interior and exterior noise standards of the County, provided said activities do not take place between the hours of 8:00 p.m. and 7:00 a.m. on weekdays, including Saturday, or at any time on Sunday or a Federal holiday. No noise generating activities are expected outside of these hours. In addition, the County requires compliance with the Noise Ordinance, the use of mufflers, and location of stockpiles away from residential areas. This anticipated noise impact would be less than significant due to the limited duration of occurrence and because construction traffic would be limited to the allowed hours of construction activity.

Off-Site Noise Generated by Project Traffic

As stated previously, the proposed Project uses would generate 205 fewer trips per day than the existing racquet club uses. The Project would generate 349 ADTs, whereas the existing racquet club generates 554 ADTs (RK Engineering Group, Inc. 2020). Overall, a net reduction in traffic from implementation of the proposed Project would result in a decrease of off-site noise generation. There would be no impact.

Response to Impact Question b): Less than Significant Impact.

The proposed Project would not generate or expose persons or structures to excessive groundborne vibration from the construction phase with the implementation of mitigation measures. There are no applicable County standards for vibration-induced annoyance or structural damage from vibration. The

California Department of Transportation (Caltrans) vibration damage potential guideline thresholds are shown in Table 25, Vibration Damage Threshold Criteria.

Table 25: Vibration Damage Threshold Criteria

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	0.1
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

ppv: peak particle velocity; in/sec: inch(es) per second

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.

Source: Caltrans 2013

The structural damage threshold for "older residential structures" of 0.3 ppv in/sec is selected for analysis. This threshold represents the vibration limits for structural damage to adjacent uses to the Project site.

The Caltrans vibration annoyance potential guideline thresholds are shown in Table 26, Vibration Annoyance Criteria. Based on the guidance in Table 26, the "strongly perceptible" vibration level of 0.9 ppv in/sec is considered a threshold for a potentially significant vibration impact for human annoyance.

Table 26: Vibration Annoyance Criteria

Average Human Response	ppv (in/sec)
Severe	2.0
Strongly perceptible	0.9
Distinctly perceptible	0.24
Barely perceptible	0.035

ppv: peak particle velocity; in/sec: inch(es) per second
Source: Caltrans 2013

Pile driving and blasting are generally the sources of the most severe vibration during construction. Neither pile driving nor blasting would be used during Project construction. Conventional construction equipment would be used for demolition and grading activities. Table 27 summarizes typical vibration levels measured during construction activities for various vibration-inducing pieces of equipment.

Table 27: Vibration Levels For Construction Equipment

Equipment		ppv at 25 ft (in/sec)
Pile driver (impact)	upper range	1.518
	Typical	0.644
Pile driver (sonic)	upper range	0.734
	Typical	0.170
Vibratory roller		0.210
Large bulldozer		0.089
Caisson drilling		0.089
Loaded trucks		0.076
Jackhammer		0.035
Small bulldozer		0.003
ppv: peak particle velocity; ft: feet; in/sec: inches per second Source: Caltrans 2013; FTA 2006		

Demolition, grading, and construction would occur up to the property lines; and, as noted above, the Project site is adjacent to residential properties on the north, west, south, and east of the property lines. Table 28, Vibration Annoyance Criteria at Sensitive Uses, shows the vibration annoyance criteria from construction-generated vibration activities proposed at the Project site.

Table 28: Vibration Annoyance Criteria at Sensitive Uses

	Vibration Levels (ppv)			
Equipment	Residents to the North of the Project Site (ppv @ 72 ft)	Residents to the West of the Project Site (ppv @ 44 ft)	Residents to the South of the Project Site (ppv @ 47ft)	Residents to the East of the Project Site (ppv @ 38 ft)
Large bulldozer	0.018	0.038	0.035	0.047
Small bulldozer	0.001	0.001	0.001	0.002
Jackhammer	0.007	0.015	0.014	0.019
Loaded trucks	0.016	0.033	0.029	0.041
Criteria	**0.9**	**0.9**	**0.9**	**0.9**
Exceeds Criteria?	**No**	**No**	**No**	**No**
ppv: peak particle velocity; Max: maximum; avg: average; ft: feet Source: USEPA 1971 (Calculations can be found in Appendix H)				

As shown in Table 28, ppv would not exceed the criteria threshold when construction activities occur under maximum (i.e., closest to the receptor) exposure conditions. These vibration levels represent conditions when construction activities occur closest to receptor locations. Construction-related vibration would be substantially less under average conditions when construction activities are located farther away. Because vibration levels would be below the significance thresholds, vibration generated by the Project's construction equipment would not be expected to generate readily perceptible levels of

vibration at the nearest uses and would result in less than significant impacts related to vibration annoyance.

Table 29, Structural Damage Criteria at Sensitive Uses, shows the ppv relative to structural damage to sensitive uses from vibration activities.

Table 29: Structural Damage Criteria at Sensitive Uses

	Vibration Levels (ppv)			
	Receptors to the North of the Project Site	Residents to the West of the Project Site	Receptors to the South of the Project Site	Receptors to the East of the Project Site
Equipment	(ppv @ 72 ft)	(ppv @ 44 ft)	(ppv @ 47 ft)	(ppv @ 38 ft)
Large bulldozer	0.018	0.038	0.035	0.047
Small bulldozer	0.001	0.001	0.001	0.002
Jackhammer	0.007	0.015	0.014	0.019
Loaded trucks	0.016	0.033	0.029	0.041
Criteria	**0.3**	**0.3**	**0.3**	**0.3**
Exceeds Criteria?	**No**	**No**	**No**	**No**

ppv: peak particle velocity; Max: maximum; avg: average; ft: feet

Source: USEPA 1971 (Calculations can be found in Appendix H)

As shown in Table 29, all ppv levels would be below the structural damage threshold at adjacent off-site structures. As such, impacts related to the potential for cosmetic structural damage would be less than significant and no mitigation is required.

Response to Impact Question c): No Impact. The Project site is located approximately 6.5 miles northeast of John Wayne Airport and 13.5 miles southeast of the Fullerton Municipal Airport and is not located within the planning area for the *Airport Environs Land Use Plan for John Wayne Airport* (OC ALUC 2008) or *Airport Environs Land Use Plan for Fullerton Municipal Airport* (OC ALUC 2004). Aircraft overflights do not significantly contribute to the noise environment at the Project site, and the Project would not expose future Project residents to excessive noise levels in that regard.

In addition, the Project site is not located within the vicinity of a private airstrip. The nearest heliport is located at the SCE Southeastern Division Heliport, located approximately 4 miles away to the southwest. Due to the distance between the Project site and the heliport, noise from helicopter flights would not exceed the 65-dBA CNEL noise level. Therefore, it would not result in exposure of people residing or working in the Project area to excessive noise levels. No impact would occur, and no mitigation is required.

Mitigation Program

No significant noise impacts were identified; therefore, no mitigation is required.

References

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3.14 Population and Housing

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

Introduction

This section evaluates potential impacts to Population and Housing that could result from Project implementation. Analysis in this section is based on the existing environmental setting conditions, and information sources identified in this section. Responses to the impact questions listed above are provided below.

Response to Impact Question a): Less than Significant Impact. According to the California Department of Finance (2019), the County of Orange had an estimated population of 3,222,498 residents. The Center for Demographic Research at California State University at Fullerton provides projections for housing, population and employment for Orange County for the period of year 2016 through year 2045 (OCP-2018) adopted on September 27, 2018 (OCP 2018). The Project site is located within the OCP Regional Statistical Area (RSA) G-42. The G-42 population is expected to increase from 585,668 individuals to 617,630 individuals (31,962 individuals) between year 2020 and year 2045. Using the population generation factor in the General Plan, which is also reflected in the Local Park Code, a project with this density would generate approximately 2.59 residents per household. The Project would develop 37 single-family units on the Project site and would generate approximately 96 new residents.[6] In terms of direct population growth, the 96-resident population increase generated by the Project would be a minimal contribution when compared to the overall projected population increase for the County. Furthermore, the proposed residential development would not result in indirect population growth as the Project would not extend or expand infrastructure beyond the boundaries of the Project site and would not include the development of commercial uses that would facilitate or accommodate other indirect residential growth in the Project area. Therefore, the impacts related to a substantial unplanned population growth in the area. would be less than significant and no mitigation is required.

[6] Generation factor calculated using the average household size of 2.59 persons in the county in 2017.

Response to Impact Question b): No Impact. The proposed Project would result in the demolition of the existing Tustin Hills Racquet Club, surface parking, and associated site improvements. There are no existing housing or residents or full-time caretaker quarters and associated residents on the site that would be displaced by the proposed Project. Furthermore, as stated above, the existing development on the Project site does not currently include a residential component or housing units. The proposed Project would provide new housing units within the County. Implementation of the Project would not displace people or necessitate the construction of replacement housing. No impact would occur, and no mitigation is required.

Mitigation Program

No significant impacts pertaining to population and housing were identified; therefore, no mitigation is required.

References

California Department of Finance (DOF). 2019 (January 1). E-5 Population and Housing Estimates for Cities, Counties and the State — January 1, 2011- 2019, with 2010 Benchmark. Sacramento, CA: http://www.dof.ca.gov/Forecasting/Demographics/Estimates/E-5/

Center for Demographic Research (CDR). 2018 (September 27, final approval). OCP-2018 Report Data (City and RSA Tabs) (an Excel Spreadsheet). Fullerton, CA: CDR

3.15 Public Services

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

Introduction

This section evaluates potential impacts to Public Services that could result from Project implementation. Analysis in this section is based on the existing environmental setting conditions, and information sources identified in this section. Responses to the impact questions listed above are provided below.

County Standard Conditions

The following County Standard Conditions would be applicable to the Project:

SC PS-1 Prior to issuance of a building permit, the applicant shall comply with local park code either through the payment of in-lieu fees and/or the application of any potential local park credits due to the development of on-site private recreational facilities including; pool, spa, restroom facilities, overhead shade structure, BBQ, fireplace, seating, pocket park, dog park, trail access in compliance with the County's Local Park Code (Zoning Code Section 7-9- 500, et seq) (currently $8,800 per unit) (SG17 Local Park Code). Fee payment shall be in the amount in effect at the time of issuance.

Response to Impact Question a-i): Less than Significant Impact. Fire protection services for the Project site are provided by the Orange County Fire Authority (OCFA), Operations Division 4. The Project site is in the Battalion 3 service area, which serves the area of Tustin Unincorporated (OCFA 2018). The Project site is located approximately 1.4 miles southeast of the OCFA Fire Station 8 located at 10631 Skyline Drive, Santa Ana 92705, providing service to the Community of North Tustin. Fire Station 8 includes a staff of three Fire Captains, three Fire Apparatus Engineers, and three Firefighters. Fire Station 8 apparatus includes Paramedic Assessment Unit (PAU) Engine 8 (OCFA 2018).

The proposed Project would increase the population in the area by approximately 96 residents which would incrementally increase demand for fire protection and emergency response services in the area. However, the existing use (racquet club) on the Project site currently places a demand on fire services, if such services were required. Under the proposed Project, the demand for fire protection services associated with the racquet club would be eliminated. According to Ms. Tamy Rivers in OCFA's Fire Preservation Department (Rivers 2019), implementation of the Project would not result in the need to modify any existing fire facilities or the need to construct new facilities. In addition, no fire personnel would need to be added and the existing service ration would not be affected.

In addition, the design of the dwelling units would conform to the Uniform Building and Fire Code, which would implement design standards and requirements to reduce potential fire risk. It is not anticipated that development of 34 single-family townhome units and 3 single-family detached units would result in the need for new or physically altered fire protection facilities. Less than significant impacts would result, and no mitigation is required.

Response to Impact Question a-ii): Less than Significant Impact. The Orange County Sheriff-Coroner Department provides police patrol and investigative services to the unincorporated areas of Orange County. North Operations, based at Sheriff's Headquarters in Santa Ana, is responsible for patrol services in the north Orange County unincorporated areas. North Patrol provides police services for the 72,212 residents of unincorporated Orange County with over 70,000 calls responded to for service each year (County of Orange 2005).

The Project site is located approximately 4 miles northeast of the Orange County Sheriff's Department Headquarters in Santa Ana. The proposed Project would incrementally increase the demand for police services with the addition of 37 units adding approximately 96 new residents. However, the existing use (racquet club) on the Project site already places some demand on police services. Under the proposed Project elimination of the existing use would result in an incremental decrease in police service demand. According to Lieutenant Rich (Rich 2019), due to its size, location, and type of development the proposed Project would not create a demand for additional officers or resources to provide adequate service to the proposed Project. Thus, development of the proposed Project would not result in the need for new or physically altered police protection facilities. Impacts to public services related to police protection would be less than significant, and no mitigation is required.

Response to Impact Question a-iii): Less than Significant Impact. The Project site is located within the Tustin Unified School District (TUSD). According to the TUSD website School Locator, the Project site is located within the attendance boundaries for Red Hill Elementary School (K-5), Hewes Middle School (6-8), and Foothill High School (9-12) (TUSD 2018a). The number of students expected to be generated by the development of the 37 units would be minimal. The number of residences is projected to generate a total of 12 students including 6 elementary, 3 middle school, and 3 high school age students[7] (TUSD 2018b). The surrounding schools serving the Project site would be able to accommodate the students that would be generated by the proposed Project (Litfin, 2019). Therefore, impacts to public services related to schools would be less than significant, and no mitigation is required.

[7] Students generated by the proposed Project were computed using the student generation rates for elementary school (0.1434), middle school (0.0736) and high school (0.0902) multiplied by the total dwelling units proposed (37).

Response to Impact Question a-iv): Less than Significant Impact. As further discussed in Section 3.16, Recreation, the nearest local park serving the Project area is Bent Tree Park located approximately 0.8-mile northeast of the Project site in the Cowan Heights/Lemon Foothills. Bent Tree Park is a 6-acre neighborhood park located directly adjacent to Peters Canyon Regional Park. Located approximately 2 miles northwest of the Project site are Esplanade Park and Holderman Park both located in the North Tustin Community Service Area. Esplanade Park is a 5-acre neighborhood park consisting of a narrow, linear park situated in a residential portion of North Tustin. Holderman Park is a 0.2 acre mini-park located adjacent to Esplanade Park.

The proposed Project would result in approximately 96 new residents who would incrementally increase the use of surrounding parks and open space areas; however, it should be noted that the Project would include recreational amenities that would serve the future residents' demand for recreational facilities. The new or physically altered governmental facilities are not projected to be required as a result of the Project; therefore, a significant impact is not anticipated. In addition, the proposed Project is located near several large regional open space areas. Three regional parks are located near the Project site including Peters Canyon Regional Park, Santiago Oaks Regional Park, and Irvine Regional Park (OC Parks 2018).

The County's Local Park Code is used for purposes of evaluating Project consistency as it reflects the County's policies regarding recreation standards. Section 7-9-502(g) of the County of Orange Local Park Code requires 2.5 acres of land per 1,000 residents, which at the density proposed by the Project would be 0.006 acre of parkland per unit. This would require approximately 0.22 acre of parkland. Recognizing that such small areas of land would not provide meaningful parks, Section 7-9-508 allows the payment of fees to satisfy the parkland requirements. The proposed Project would be required to comply with local park code either through the payment of in-lieu fees and/or the application of any potential local park credits due to the development of on-site private recreational facilities in compliance with the County's Local Park Code (SC PS-1). Impacts to public services related to parks would be less than significant, and not require mitigation.

Response to Impact Question a-v): Less than Significant Impact. The Orange County Public Library provides library service to the unincorporated areas of Orange County, including the Project site. The Orange County Public Library operates 33 branch library facilities. (Orange County 2005, OCPL 2018a). The closest library facility is the Irvine/Katie Wheeler Library located at 13109 Old Myford Road approximately 1.4 miles southeast of the Project site (OCPL 2018b).

The County has not established a specific library service standard and no such standard has been set forth by the American Library Association. The threshold of significance focuses on whether the Project would result in substantial adverse physical impacts associated with the provision of new or physically altered governmental facilities, need for new or physically altered governmental facilities, the construction of which could cause significant environmental impacts. The proposed Project would generate approximately 96 new residents that would require library services. Due to the relatively small residential population anticipated to be generated by the proposed Project, implementation of the proposed Project is not expected to adversely impact library services or trigger the need for construction of new or expanded library facilities. Therefore, the Project would not result in impacts associated with the need for new or physically altered governmental facilities. Additionally, the proposed Project would provide payment of applicable statutory fees related to libraries required for new residential development. Therefore, impacts to public services related to libraries would be less than significant, and not require mitigation.

Mitigation Program

No significant public services impacts were identified; therefore, no mitigation beyond the identified County Standard Conditions are required.

References

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3.16 Recreation

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

Introduction

This section evaluates potential impacts to Recreation that could result from Project implementation. Analysis in this section is based on the existing environmental setting conditions, and information sources identified in this section. Responses to the impact questions listed above are provided below.

County Standard Conditions

SC PS-1, provided in Section 3.15, Public Services, would be applicable to the Project

Response to Impact Question a): Less Than Significant Impact. According to the Recreation Element of the Orange County General Plan, the Master Plan of Local Parks articulates goals, objectives and policies and provides implementation programs to meet the local recreation needs of the unincorporated county area. In conjunction with the Local Park Code, the Master Plan for Local Parks is intended to provide for comprehensive local park planning and programming (i.e., acquisition, development, operation, maintenance, and financing) County function (County of Orange 2005). The Local Park Code, as the local park implementing mechanism, requires 2.5 acres of land per 1,000 persons when residential dwelling units are proposed. The code also allows for the payment of in lieu fees or a combined provision of park land and payment of in lieu fees when the community is better served through the provision of park land outside but near the property served (County of Orange 2005). According to the Local Park Implementation Plan Criteria of the General Plan, the County Local Park Code requires the provision of local park land, or the payment of in lieu fees, or a combination of both as a means of meeting the local park and recreation needs of present and future county residents (County of Orange 2012).

The closest local park serving the Project area is Bent Tree Park located approximately 0.8-mile northeast of the Project site in the Cowan Heights/Lemon Foothills. Bent Tree Park is a 6-acre neighborhood park located directly adjacent to Peters Canyon Regional Park. Located approximately 2 miles northwest of the

Project site are Esplanade Park and Holderman Park, both located in the North Tustin Community Service Area. Esplanade Park is a 5-acre neighborhood park consisting of a narrow, linear park situated in a residential portion of North Tustin, while Holderman Park is a 0.2 acre mini-park located adjacent to Esplanade Park. The 96 future residents of the proposed Project would incrementally increase the use of existing recreational facilities in the surrounding area. However, it should be noted that the Project will provide recreational amenities in compliance with the County's Local Park Code [SC PS-1]) for the residents, which would accommodate the increased demand for such facilities. In addition, the proposed Project would be required to pay in-lieu park fees, as applicable, for the proposed Project's incremental contribution to the use of existing facilities. Therefore, with implementation of SC PS-1, recreational facilities, the potential impact associated with increased demand for and deterioration of existing recreational facilities would be less than significant, and no mitigation is required.

Response to Impact Question b): Less Than Significant Impact. The proposed Project would be required to pay park impact fees, as applicable, in order offset the proposed project's incremental contribution to the use of existing facilities. The development of the proposed Project would not require the construction or expansion of recreational facilities outside of those analyzed within the development of the proposed Project. Therefore, the recreation needs of the residents would largely be met through the development of on-site private recreational facilities. Thus, the proposed Project would not result in a substantial increased demand for recreational facilities or the need for construction of new facilities, which would adversely affect the environment. Therefore, impacts in this regard would be less than significant, and no mitigation is required.

Mitigation Program

With implementation of SC PS-1, there would be no impacts to recreational resources; therefore, no mitigation is required.

References

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3.17 Transportation/Traffic

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

Introduction

A Trip Generation Analysis (February 24, 2020) and a Construction Traffic Impact Analysis (updated October 31, 2019) have been prepared by RK Engineering Group and Psomas, respectively. The analyses are provided in Appendix I-1 and I-2. The analyses have been prepared to evaluate the net trip generation associated with the proposed Project and determine if additional analysis is required pursuant to the County of Orange's Growth Management Program (GMP) Transportation Implementation Manual (County Manual). Based on the County's GMP requirements, a formal traffic analysis is not required of any project that generates no more than 200 daily trips. The Project would not exceed the criterion; therefore, a formal traffic analysis was not required.

The traffic analysis, below, incorporates the findings of the above reports/memoranda.

County Standard Conditions

The following County Standard Conditions would be applicable to the Project:

SC TRA-1 Prior to the issuance of any grading permits, the applicant shall provide adequate sight distance per Standard Plan 1117 at all street intersections, in a manner meeting the approval of the Manager, OC Infrastructure/Traffic Engineering. The applicant shall make all necessary revisions to the plan to meet the sight distance requirement such as removing slopes or other

encroachments from the limited use area in a manner meeting the approval of the Manager, Building and Safety. (County Condition of Approval T10)

SC TRA-2 Prior to the issuance of building permits, the applicant shall pay applicable fees for the Major Thoroughfare and Bridge Fee Program for the Foothill/Eastern Transportation Corridor, in a manner meeting the approval of the Manager, Building and Safety. (County Condition of Approval T09)

Response to Impact Question a): Less than Significant Impact.

Short-Term Construction-Related Traffic

Construction activities at the Project site would lead to new truck trips, construction equipment trips, and construction crew vehicle trips that would add to existing traffic volumes in the Project area. Grading and infrastructure installation would occur in a single phase while construction of the single-family units would be constructed in three phases with approximately 12 units completed in each phase of development Construction is anticipated to generate 64 peak hour trips and 265 trips during an 8-hour construction period, over five days per week (i.e., Monday through Friday).

Although construction activities for the proposed Project are anticipated to be below the 200 trip-per-day threshold to require a traffic impact analysis per the County's GMP, the Construction Traffic Impact Analysis was prepared to calculate the expected number of construction-generated trips for the project and provide a Level of Service (LOS) for five study intersections: 17th Street/Newport Avenue; La Colina Drive/Newport Avenue; La Colina Drive/Red Hill Avenue; La Colina Drive/Browning Avenue; and La Colina Drive/Tustin Ranch Road.

Existing traffic volumes were collected on Wednesday, December 13, 2017, at each of the five study intersections. Volumes were collected in the AM (7:00 – 9:00 AM), Midday (11:30 AM – 1:30 PM), and PM (4:00 – 6:00 PM) peak periods. Overall, the peak hours were found to be from 7:45 to 8:45 AM, 12:30 to 1:30 PM, and 5:00 to 6:00 PM, with the AM peak hour serving the highest overall volumes; however, the highest peak hour volume at each intersection was used as a conservative analysis. To determine the trip generation for the construction site, traffic volumes were collected at two similar residential construction sites in Costa Mesa on Wednesday, December 20, 2017, from 5:00 AM to 5:00 PM, both constructing 11 residential homes at different stages of construction. Table 30 displays a summary of the sites and associated construction traffic volumes.

Table 30: Construction Traffic Volumes at Comparable Sites

Site	AM Peak Trips			Midday Peak Trips			PM Peak Trips			Total (12 hrs)
	Total	In	Out	Total	In	Out	Total	In	Out	
2850 Mesa Verde East	4	3	1	2	1	1	0	0	0	8
301 Costa Bella	14	11	3	9	3	6	5	1	4	88
Source: Psomas 2019.										

Because this Project would include the construction of approximately 12 units per phase (total three phases), the collected traffic volumes were increased by 10 percent to develop projected construction traffic volumes for the proposed Project. The volumes are shown below in Table 31. The table also includes the projected volumes in passenger car equivalents (PCEs); truck trips have a 2:1 equivalence when

compared operationally to a passenger car. Truck volumes were taken directly from the Costa Bella counts, which did not show any truck trips in the Midday or PM peak hours. Therefore, the AM peak hour is the only period (other than daily) for which the PCE volumes differ from the total volumes.

Table 31: Estimated Construction Traffic Volumes for the Ranch Hills Community

Site	AM Peak Trips			Midday Peak Trips			PM Peak Trips			Total (12 hrs)
	Total	In	Out	Total	In	Out	Total	In	Out	
Ranch Hills (Projected)	15	12	3	10	3	7	6	1	4	97
Ranch Hills (Projected PCEs)*	21	15	6	10	3	7	6	1	4	112
* Passenger Car Equivalents (PCEs) were calculated assuming a factor of 2.0 per truck and were calculated separately for each period. Source: Psomas 2019.										

Level of Service (LOS) Analysis

Per the County's GMP, the Level of Service (LOS) for signalized intersections was determined using the Intersection Capacity Utilization (ICU) methodology and the guidelines included in the manual. LOS for unsignalized intersections was also evaluated using the ICU methodology, which was calculated using Synchro. Based on the County Manual, significant adverse impact is noted when intersections degrade to a LOS worse than "D." Table 32*, LOS for Existing and Existing Plus Construction Conditions* of the Construction Traffic Memorandum shows the LOS for Existing and Existing Plus Construction conditions.

Table 32: LOS for Existing and Existing Plus Construction Conditions

Signalized Intersection	Existing						Existing Plus Construction					
	AM Peak Hour		Midday Peak Hour		PM Peak Hour		AM Peak Hour		Midday Peak Hour		PM Peak Hour	
	V/C	LOS	V/C	LOS	V/C	LOS	V/C	LOS	V/C	LOS	V/C	LOS
17th St/ Newport Ave	0.878	D	0.506	A	0.703	C	0.885	D	0.507	A	0.708	C
La Colina Dr/ Newport Ave	0.736	C	0.405	A	0.834	D	0.738	C	0.406	A	0.843	D
La Colina Dr/ Tustin Ranch Rd	0.560	A	0.311	A	0.450	A	0.579	A	0.312	A	0.469	A

Unsignalized Intersection	Existing						Existing Plus Construction					
	AM Peak Hour		Midday Peak Hour		PM Peak Hour		AM Peak Hour		Midday Peak Hour		PM Peak Hour	
	V/C	LOS	V/C	LOS	V/C	LOS	V/C	LOS	V/C	LOS	V/C	LOS
La Colina Dr/ Red Hill Ave	0.717	C	0.549	A	0.687	B	0.734	C	0.550	A	0.700	B
La Colina Dr/ Browning Ave	0.510	A	0.327	A	0.447	A	0.538	A	0.330	A	0.526	A
Source: Psomas 2019.												

As shown in Table 32, above, all study intersections were found to be currently operating at LOS D or better and are expected to continue to do so during construction of the proposed Project. With or without the construction traffic, the 17th Street/Newport Avenue intersection was found to operate at LOS D in the AM peak hour and the La Colina Drive/Newport Avenue intersection was found to operate at LOS D in the PM peak hour. The remaining study intersections are expected to operate at LOS C or better in each of the three evaluated peak hours.

As previously indicated, traffic volume data was collected in December 2017. Although more recent traffic volumes for the study intersections are not available, daily historic traffic volumes in the project area are available in map format from OCTA (OCTA 2020). While volumes for La Colina Drive are not available, based on the OCTA traffic volume data, traffic volumes on Newport Avenue in the project area have remained relatively unchanged in recent years, and volumes on 17th Street have steadily decreased since 2012. Although current intersection volumes are not available, it can be reasonably assumed that the findings in the Construction Traffic Impact Analysis memorandum (Psomas 2019) continue to remain valid. Therefore, construction of the proposed Project is not anticipated to have a significant impact on traffic operations, and no mitigation is needed.

Project Trip Generation

Trip generation represents the amount of traffic that is both attracted to and produced by a development. Traffic generation rates for the existing use on site and the proposed Project have been derived from the Institute of Transportation Engineers' (ITE's) *Trip Generation Manual*, 10th Edition, 2017, as shown in Table 33, Trip Generation Rates.

Table 33: Trip Generation Rates

Scenario	Land Use	Code[1]	Unit	AM Peak Hour			PM Peak Hour			
				In	Out	Total	In	Out	Total	Daily
Proposed Project	Single Family Homes	210	DU	0.185	0.555	0.740	0.624	0.366	0.990	9.44
Existing Conditions	Tennis Courts[2]	490	Courts	1.201	0.618	1.819	1.979	2.231	4.210	30.32
	Banquet Facility/ Special Events[3]	N/A	Max. Occupancy	0.026	0.014	0.040	0.041	0.046	0.087	0.667

DU: dwelling units; PPV: persons per vehicle; N/A: non-applicable

1 Based on the 10th Edition ITE Trip Generation Manual

2 The ITE Trip Generation Manual does not have published data on the trips rates during the AM peak hour or PM peak hour (splits) for Tennis Court (ITE Code 490) land uses. Therefore, AM and PM peak hour traffic and in/out splits are estimated based on Recreational Community (ITE Code 495) as a percent of daily traffic.

3 The ITE Trip Generation Manual does not have published data on Banquet/Special Event uses. Therefore, the daily trip rate is based on an average vehicle occupancy 3.0 persons per vehicle. AM and PM peak hour traffic and in/out splits are commensurate to the rates used for tennis courts.

Source: RK Engineering Group, Inc. 2020.

Based on the trip generation rates in Table 33, Table 34 provides the trips associated with the existing and proposed uses. The existing Racquet Club generates a total of 554 trips per day, consisting of 334 trips associated with the tennis court uses and 220 trips associated with the banquet facility uses. The proposed

Project is anticipated to generate a total of 349 trips per day, with 28 AM peak hour trips and 37 PM peak hour trips. Trip generation for the proposed project is based on ITE Trip Generation Land Use Code 210 - Single Family Homes. Utilizing the single-family homes trip rate is considered conservative as the trip generation associated with the development is expected to more closely reflect that of senior adult housing or multifamily housing, rather than single family homes. However, since the proposed Project is not actually "age-restricted", but rather "age-targeted", the traffic analysis uses the highest residential trip generation rate that is published by ITE to estimate future traffic impacts for a worst case scenario. The new development is expected to generate 205 fewer daily trips to the roadway network in the immediate vicinity of the Project. Based on the County guidelines threshold of an addition of 200 or more trips, and the fact that the Project would generate 205 fewer trips, the Project is therefore exempt from the requirements of the County's GMP for a formal Traffic Analysis or Study.

Table 34: Trip Generation Comparison

Scenario	Land Use	Quantity	Units[3]	AM Peak Hour			PM Peak Hour			
				In	Out	Total	In	Out	Total	Daily
Proposed Project	Single Family Homes	37	DU	7	21	28	23	14	37	349
Existing Conditions	Tennis Courts[1]	11	Courts	13	7	20	21	25	46	334
	Banquet Facility	330	Max. Occupancy	9	5	14	14	15	29	220
Subtotal Existing Uses				22	12	34	35	40	75	554
Trip Generation Comparison				7	21	28	23	14	-9	-205

DU: dwelling units; N/A: non-applicable

[1] The ITE Trip Generation Manual does not have published data on the trips rates during the AM peak hour or PM peak hour (splits) for Tennis Court (ITE Code 490) land uses.

Source: RK Engineering Group, Inc. 2020.

The Orange County Congestion Management Program (CMP) Traffic Impact Analysis Requirements specify that only projects that generate more than 2,400 daily trips should perform a CMP traffic impact analysis. The proposed Project is only forecast to generate a maximum of 349 daily trips (without adjusting for baseline conditions). Therefore, the Project is well below the threshold of requiring a CMP traffic analysis.

In accordance with the OCTA's Congestion Management Program (CMP), a project would result in significant impact to traffic if it causes the level of service (LOS) of any CMP Highway System intersection to degrade to below a LOS E or if it generates sufficient traffic that contributes to an already failing facility.

The CMP highway intersection in the vicinity of the Project include Jamboree Road and Irvine Boulevard; SR-55 NB Ramps/Irvine Boulevard Intersections in Tustin; and the SR-55 SB Ramp/Irvine Boulevard in Santa Ana (OCTA 2017). The 2017 CMP identifies Jamboree Road and Irvine Boulevard intersection in both the AM and PM peak hour as operating at LOS C; SR-55 NB Ramps/Irvine Boulevard intersection in both the AM and PM peak hour as operating at LOS A; and the SR-55 NB Ramps/Irvine Boulevard operate at LOS D in the AM peak hour and LOS B in the PM peak hour. Given the limited number of trips generated by the Project and the current (2017) LOS at the CMP intersections, the Project would not result in impacts

to any CMP Highway System intersection causing it to degrade below LOS E. Additionally, the Project would not contribute a significant amount of traffic to any CMP Highway System intersection already operating below LOS E under existing conditions. Although the CMP sets forth travel demand measures that promote the use of alternative modes of transportation, none of the travel demand measures (i.e., carpools, vanpools, transit, bicycles, park-and-ride lots, flexible work hours, telecommuting, parking management programs, and parking cash-out programs) specified in the CMP would be applicable to the Project (OCTA 2017). Accordingly, the Project would not conflict with the OCTA CMP's LOS standards or travel demand measures. No impact would occur, and no mitigation is required.

In addition, according to the Chapter IV Circulation Plan Map of the County of Orange General Plan, there are no arterial highways located on or adjacent to the Project site (County of Orange 2012). In addition, no bikeways or trails are located near the Project site (County of Orange 2005x). The Class 1 bikeway nearest the Project site is located inside Peters Canyon Regional Park, northeast of the Project site. Similarly, the nearest pedestrian trails are located within the Peters Canyon Regional Park. Therefore, no public transit, bicycle, or pedestrian facilities are located on or near the Project site. The Project would not impact public transit, bicycle, or pedestrian routes in the surrounding area. The proposed Project is not anticipated to conflict with any adopted policies, plan or programs related to public transit, bicycle, or pedestrian facilities, or result in a decrease in performance or safety of such facilities. No impacts would occur, and no mitigation is required.

No conflict with a program, plan, ordinance, or policy related to the circulation system would occur, and the Project would not impact the performance of circulation system components, including the surrounding intersections. Impacts would be less than significant, and no mitigation is required.

Response to Impact Question b): Less than Significant. The CEQA Guidelines Section 15064.3(b) state that if the vehicle miles traveled (VMT) generated by a project exceed an applicable threshold of significance, it may indicate a significant impact. The guidelines also state that projects, which decrease VMT in the project area when compared to existing conditions should be presumed to have a less than significant impact. The County has not adopted VMT Guidelines and no VMT analysis was conducted. Moreover, VMT analysis is not required until July 1, 2020.

Response to Impact Question c): Less than Significant with Mitigation Incorporated. Primary vehicular access to the proposed Project would be provided by an entry driveway off Pavillion Drive, which is consistent with the current configuration of the entry into the existing use. In addition, the location of driveway access points would comply with OC Public Works roadway standards for adequate sight distance (SC TRA-1, compliance with County site distance requirements). Thus, no long-term impacts associated with hazardous design access are anticipated.

During construction, equipment would be staged on the Project site and would not block the streets or roadways surrounding the Project site. The Project would not require any off-site roadway and intersection improvements; however, short-term construction in Pavillion Drive would be required to connect utilities (i.e., connection of the sewer main). Although no road closures would occur during construction phase of the Project, a short-term lane closure of approximately one week would be anticipated. Implementation of a construction Traffic Management Plan (TMP) would be required to provide safe and effective roadway user flow through the work zone (see MM TRA-1). With implementation of this measure, the Project would not result in a hazard.

Additionally, compliance with County standards design requirements would ensure that no traffic hazards are created by the proposed Project. Review and approval of the Site Plan for the proposed Project would verify compliance. The Project does not propose uses or geometric design features that would create hazards. The proposed Project would not interfere with access, circulation, or activities at the surrounding land uses. The internal circulation system for the proposed Project has been reviewed and approved and determined to be adequate to accommodate service/delivery trucks, trash trucks, and fire trucks. Additionally, the Project would not introduce an incompatible use that may create a hazard to surrounding residences. With implementation of SC TRA-1 and MM TRA-1, impacts would be less than significant.

Response to Impact Question d): Less than Significant Impact. The proposed entry into the site will maintain its location. Additionally, the internal circulation and the location of driveway access points would comply with OC Public Works roadway standards for adequate sight distance. Thus, no long-term impacts associated with limitations with emergency access are anticipated. During construction, temporary lane closures may occur; however, equipment would be staged on the Project site and would not block the streets and roadway surrounding the Project site. Roads would be maintained to ensure that the Project would not impair emergency access. Impacts would be less than significant and no mitigation is required.

Mitigation Program

In addition to SC TRA-1 (Standard Condition T10) and SC TRA-2 (Standard Condition T09), the following mitigation measure is required.

MM TRA-1 Prior to issuance of a building permit, a construction Traffic Management Plan (TMP) shall be prepared to ensure safe and efficient traffic flow throughout the Project study area during all phases of construction, including construction in the Pavillion Drive/Simon Ranch Road right-of way . The TMP shall address routing, hours, provision for over-sized equipment, and site access. The TMP shall include guidelines for pedestrian and worker safety; safe and adequate access to all properties during construction activities; street markings and traffic control; notification of emergency personnel; and restoration of the street after construction. The TMP shall be prepared to the satisfaction of the Manager, Building and Safety.

References

Orange County Transportation Authority (OCTA). 2020 (April 23, access date). Annual Traffic Volume Maps. https://www.octa.net/Projects-and-Programs/All-Projects/Streets-Projects/Master-Road-Plan/Annual-Traffic-Volume-Maps/

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3.18 Tribal Cultural Resources

Would the project cause a substantial adverse change in the significance of a tribal cultural resource, defined in Public Resources Code Section 21074 as either a site, feature, place, cultural landscape that is geographically defined in terms of the size and scope of the landscape, sacred place, or object with cultural value to a California Native American tribe, and that is:	**Potentially Significant Impact**	**Less than Significant With Mitigation Incorporated**	**Less than Significant Impact**	**No Impact**
a-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)?	☐	☐	☒	☐
a-ii) A resource determined by the lead agency, in its discretion and supported by substantial evidence, to be significant pursuant to criteria set forth in subdivision (c) of Public Resources Code Section 5024.1. In applying the criteria set forth in subdivision (c) of Public Resource Code Section 5024.1, the lead agency shall consider the significance of the resource to a California Native American tribe.	☐	☒	☐	☐

Introduction

This section evaluates potential impacts to Tribal Cultural Resources that could result from Project implementation. Analysis in this section is based on the existing environmental setting conditions, and information sources identified in this section. Responses to the impact questions listed above are provided below.

Regulatory Requirements

RR TCR-1 Should evidence of human remains be discovered during project construction, the Orange County Coroner (OCC) shall be immediately notified of the discovery. Evidence of human remains requires mandatory compliance with the provisions of State Health and Safety Code Section 7050.5, which restricts further disturbance in the vicinity of the discovery, defined herein as a 50-foot radius, until the OCC has made a determination within 2 business days of

the origin and disposition pursuant to PRC Section 5097.98. If the remains are determined to be Native American, the OCC shall notify the NAHC within 24 hours that remains have been discovered. The NAHC shall determine the identity of the Most Likely Descendant. The Most Likely Descendant shall complete the inspection of the remains within 48 hours of notification by the NAHC.

Response to Impact Question a-i): Less than Significant Impact. For purposes of impact analysis, a tribal cultural resource is considered a site, feature, place, cultural landscape, sacred place, or object which is of cultural value to a California Native American Tribe and is either eligible for the CRHR[8] or a local register.

Psomas submitted a request to the NAHC for a Sacred Lands File search and a list of tribal representatives for AB 52 consultation on November 1, 2018. The NAHC conducted a Sacred Lands File ("SLF") search for the Project area. Results were received on November 15, 2018. The search failed to identify any sacred places or objects with cultural value to a California Native American tribe on the Project site.

As indicated in Section 3.5, Cultural/Scientific Resources of this Initial Study, based on a records search, there are no resources on the Project site that are currently listed on the CRHR, and therefore, impacts are less than significant, and no mitigation is required.

Response to Impact Question a-ii): Less than Significant with Mitigation Incorporated. Consistent with requirements of AB 52, on April 10, 2019 the County of Orange, OCPW, Development Services/Planning sent letters to tribes that have provided written requests to be notified of projects in unincorporated Orange County. Letters were sent to the following tribal organizations:

- Gabrieliño Band of Mission Indians – Kizh Nation;
- Juaneño Band of Mission Indians – Acjachemen Nation;
- San Gabriel Band of Mission Indians; and,
- Soboba Band of Luiseño Indians.

Only the Gabrieleño Band of Mission Indians - Kizh Nation requested consultation. Consultation with the Gabrieleño Band of Mission Indians - Kizh Nation and staff from OCPW, Development Services/Planning occurred on June 20, 2019. During the consultation, the Gabrieleño Band of Mission Indians - Kizh Nation requested additional information pertaining to the artificial fill located on the Project site. OCPW, Development Services/Planning provided a written response to the requested information and concluded consultation with the Gabrieleño Band of Mission Indians - Kizh Nation on August 8, 2019 and provided written correspondence to that effect.

Should evidence of human remains be discovered during project construction, the Project would comply with RR TCR-1 which includes mandatory compliance with the provisions of State Health and Safety Code Section 7050.5. While consultation did not reveal the existence of known Tribal Cultural Resources on the Project site, unknown tribal cultural resources could be unexpectedly discovered during construction activities. The Project would comply with RR TCR-1 and would implement MM TCR-1 to reduce the

[8] Section 5020.1 of the Public Resources Code established the California Register of Historic Resources, as "an authoritative guide in California to be used by state and local agencies, private groups, and citizens to identify the state's historical resources and to indicate what properties are to be protected, to the extent prudent and feasible, from substantial adverse change."

Project's potential significant impacts to less than significant should resources be discovered during construction.

Mitigation Program

In addition to RR TCR-1, the following mitigation measure is required.

MM TCR-1 If unanticipated archaeological resources or deposits are discovered during earth-moving activities, OCPW will implement the following measures. All work will halt within a 50-foot radius of the discovery. OCPW will have a qualified professional archaeologist assess the significance of the find. If the resources are Native American in origin, the County shall coordinate with the Tribe regarding evaluation, treatment, curation, and preservation of these resources. The archaeologist will have the authority to modify the no-work radius as appropriate, using professional judgment in consultation with OCPW. Work will not continue within the no-work radius until the archaeologist conducts sufficient research and evidence and data collection to establish that the resource is either: (1) not cultural in origin; or (2) not potentially eligible for listing on the CRHR. If a potentially eligible resource is encountered, then the archaeologist and OCPW, as lead agency, in consultation with the Tribe, will arrange for either: (1) avoidance of the resource, if possible; or (2) test excavations to evaluate eligibility, and if eligible, an attempt to resolve adverse effects to determine appropriate mitigation. The assessment of eligibility will be formally documented in writing as verification that the provisions in CEQA for managing unanticipated discoveries and PRC Section 5024 have been met.

References

No references have been used for this section. The information within this section is based on the SCCIC records search information, as described in Section 3.5, Cultural/Scientific Resources. Relevant information to Cultural/Scientific Resources and Tribal Cultural Resources can be found in Appendix C of this IS/MND.

3.19 Utilities and Service Systems

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

Introduction

This section evaluates potential impacts to Utilities and Service Systems that could result from Project implementation. Analysis in this section is based on the existing environmental setting conditions, and

information sources identified in this section. Responses to the impact questions listed above are provided below.

Response to Impact Question a): Less than Significant Impact.

Water and Wastewater Treatment

Water and wastewater services at the Project site are provided by the City of Tustin Water Department and the East Orange County Water District (EOCWD), respectively through an inter-agency connection (EOCWD 2015). As discussed previously, wastewater from the proposed Project would consist of sewage flows and wastewater from the kitchens and bathrooms of the proposed 37 units and would be collected by EOCWD and ultimately treated by treatment facilities owned and operated by the Orange County Sanitation District (OCSD).

The City of Tustin Water Facilities receives approximately 74 percent of its water supply from underlying groundwater in the Lower Santa Ana Groundwater Basin. The remaining 26 percent is imported water obtained through EOCWD from the Municipal Water District of Orange County which receives its supply from Metropolitan Water District of Southern California. The population of the service area had a total population of 68,088 in 2015. Approximately 77 percent of the service area's water demand is residential (City of Tustin 2015). The water demand in the City of Tustin service area in 2015 was 11,113 acre-foot/year (afy) which was met through locally pumped groundwater and purchased imported water from the Municipal Water District of Orange County (MWDOC) (MWDOC 2016). The projected City of Tustin service area total demand for 2020 is 11,310 afy with single-family residential usage projected at 6,220 afy or 59 percent of the total (City of Tustin 2015).

The Project-related water demand is estimated to be 12,913 gallons per day (gpd),[9] which would compute to approximately 14.5 afy. The estimated water consumption for the proposed Project would be approximately 0.1 percent of the total projected district demand for 2020. In addition, as previously discussed, the implementation of the proposed Project replaces the existing Tustin Hills Racquet Club which currently generates water and wastewater.

The EOCWD provides sanitary sewer service to the Project site (OCSD 2018). EOCWD is required to comply with the State Water Resources Control Board (SWRCB) Order No. 2006-0003-DWQ, entitled "Statewide General Waste Discharge Requirements for Sanitary Sewer Systems" (Order), adopted May 2, 2006 (EOCWD 2017). The Santa Ana Regional Water Quality Control Board (RWQCB) is the applicable RWQCB for the unincorporated area of Orange County. Wastewater from the proposed Project would consist of sewage flows and wastewater from the proposed 37 units and would be collected by EOCWD and ultimately be treated by treatment facilities owned and operated by the OCSD. The WDR ensures that adequate levels of treatment are provided to wastewater flows emanating from all land uses in the EOCWD service area. The Project site is currently developed as the Tustin Hills Racquet Club with existing sewer service connection.

The implementation of the proposed Project replaces the existing Tustin Hills Racquet Club which currently generates wastewater. The elimination of this use would serve to offset the demand of the

[9] Based on the City of Tustin 2015 Urban Water Management Plan (Tustin 2016), single family housing estimated per unit use in the OC basin is projected 349 (gallons/day) in 2020. 349 gallons/day x 37 units = 12,913 gallons/day x 365 days equals 4.7 million gallons/year or 14.5 afy.

Project. Further, the Project would construct sewer collection facilities and a connection to the existing sewer line located in Pavillion Drive; however, it is not anticipated that the demands would exceed the wastewater treatment requirements of the RWQCB. The wastewater from the proposed Project would not require treatment beyond that provided to existing similar uses within the service area and would not exceed established treatment requirements in the WDR. Additionally, the Project will be required to follow all federal and State regulations pertaining to wastewater discharge, including the requirements established by the Santa Ana RWQCB under the NPDES permit.

The proposed Project would connect to the existing water and sewer systems currently serving the Project site. The Project would require the extension of distribution lines for all utilities to serve the proposed Project. These improvements would be within the Project site and would not require offsite improvements or upgrading of any facilities by the service providers. The development of the proposed Project is anticipated to generate wastewater treatment demands consistent with residential use and would require the construction of collection lines from individual homes. The improvements would include the construction of a new 8-inch water main and 8-inch sewer line. In addition, a sewer lift station would be constructed to convey flows emanating from the site. The lift station would be enclosed in a structure and would contain the equipment and controls required for the lift station. Odor control facilities, such as a hydrogen peroxide storage tank and metering pump, are standard design requirements for such facilities. Final design of the pump station would be coordinated with EOCWD.

The size of the Project is below the thresholds that require preparation of a water supply assessment.[10] Based on feedback from the utility providers contained in the will serve letters contained in Appendix J, the existing water and sewer systems would have sufficient capacity to serve the proposed Project. In addition, the proposed Project would be required to pay development impact fees, as applicable. It is anticipated that the existing sewer and water lines serving the Project site would accommodate water and wastewater flows for the proposed project. Implementation of the Project would not require or result in the construction of new water or wastewater treatment facilities or expansion of existing facilities and would result in adequate capacity from water and wastewater providers. Therefore, impacts would be less than significant, and no mitigation is required.

Storm Drainage

The storm runoff from the site currently drains by surface flows southerly along a concrete drainage ditch for approximately 200 feet, where it enters a City of Tustin storm drain system leading to the San Diego Creek and the Upper Newport Bay, 8.5 miles southwest of the Project site. Implementation of the proposed Project would include the construction of a private storm drain system to collect storm runoff in the on-site common driveway/streets to be directed to an inlet at the end of the common driveway in the southwest portion of the site.

As identified under the analysis of Thresholds “d” and “e” in Section 4.9, Hydrology and Water Quality, of this IS/MND, a private on-site storm drain system will convey the flows to the southerly corner of the Project site and convey the flows to the southerly corner of the site where it would connect to the existing a concrete drainage ditch. A 3,360-sf (80 ft by 42 ft) underground infiltration trench with 6 feet of gravel will be incorporated into the drainage system to treat the runoff. Implementation of the proposed project substantially decreases the amount of impervious area on the Project site. On-site hydro-modification

[10] SB 610 and SB 221 require that a water supply assessment be done for residential developments of more than 500 dwelling units.

controls would be implemented such that the volumes and time of concentration of stormwater runoff for the post-development condition are reduced from the predevelopment condition for a two-year peak flow rate. As such, with implementation of the proposed Project, the runoff volume decreases by over 11 percent (see Appendix G, Preliminary Priority Project WQMP). Runoff would decrease with the decreased the amount of impervious surface; and therefore, would not require construction of new storm water drainage facility or expansion of existing facilities that would result in significant impacts.

The storm water runoff from the Project site would not exceed the capacity of the storm drain system, and no infrastructure improvements would be required beyond the installation of on-site storm drain facilities. The construction of the proposed water quality BMPs and storm drain lines within the Project site and off-site connections has the potential for temporary construction-related impacts; however, these construction impacts would be in the context of the Project construction and would not extend off-site. Since utility installations are within the construction impact limits identified for the proposed Project, the potential impacts associated with the construction of storm drain lines have been addressed in the respective sections of this IS/MND. Less than significant impacts would occur, and no mitigation is required.

Electricity

Southern California Edison (SCE) currently provides electricity to the Unincorporated area of Orange County, including the Project Site (CEC 2011). The Project's anticipated electricity usage is shown in Table 14, Energy Use During Operations, in Section 3.6, Energy. As discussed previously, the proposed Project would promote building energy efficiency through compliance with energy efficiency standards (Title 24 and CALGreen). The energy usage associated with the existing facilities would be replaced by those associated with the Project. The CEC anticipates the new 2019 Building Energy Efficiency Standards would result in a reduction of energy use by more than 50 percent as compared to previous energy standards (CEC 2018). Therefore, the new buildings would be more energy efficient than the existing buildings to be removed.

Electrical service to the Project site would be provided in accordance with SCE's policies and extension rules on file with the California Public Utilities Commission. Therefore, a significant impact related to the need for new systems or supplies or substantial alterations related to the Project's demand for electricity would not occur. Additionally, the Property Owner/Developer would coordinate with SCE to ensure avoidance of any notable service disruptions during the extension of, relocation of, upgrade of, or connection to services. Impacts are considered less than significant, and mitigation is not required.

Natural Gas

The Southern California Gas Company (SCGC) currently provides natural gas service to the Unincorporated area of Orange County, including the Project Site (CEC 2018). The Project's anticipated natural gas usage is shown in Table 14, Energy Use During Operations, in Section 3.6, Energy. As discussed previously, the proposed project would promote building energy efficiency through compliance with energy efficiency standards (Title 24 and CALGreen). The energy usage associated with the existing facilities would be replaced by those associated with the proposed Project. The CEC anticipates the new 2019 Building Energy Efficiency Standards would result in a reduction of energy use by more than 50 percent as compared to previous energy standards (CEC 2018). Therefore, the new buildings would be more energy efficient than the existing buildings to be removed.

In addition, the natural gas service would be provided in accordance with SCGC's policies and extension rules on file with the California Public Utilities Commission. Therefore, a significant impact related to the need for new systems or supplies or substantial alterations related to natural gas would not occur. Additionally, the Property Owner/Developer will coordinate with SCGC to ensure avoidance of any notable service disruptions during the extension of, relocation of, upgrade of, or connection to services. Impacts are considered less than significant, and mitigation is not required.

Telecommunications

AT&T currently provides telecommunications service to the Unincorporated area of Orange County, including the Project Site (AT&T 2019). The service would be provided in accordance with AT&T's policies and extension rules on file with the California Public Utilities Commission. Therefore, a significant impact related to the need for new systems or supplies or substantial alterations related to telecommunications would not occur. Additionally, the Property Owner/Developer will coordinate with AT&T to ensure avoidance of any notable service disruptions during the extension of, relocation of, upgrade of, or connection to services. Impacts are considered less than significant, and mitigation is not required.

The Project would not require the construction or expansion of water or wastewater infrastructure and treatment facilities, storm water drainage, electric power, natural gas, or telecommunications facilities. Impacts would be less than significant, and no mitigation is required.

Response to Impact Question b): Less than Significant Impact. As previously stated, water supply for the City of Tustin Water Facilities receives approximately 74 percent of its water from underlying groundwater in the Lower Santa Ana Groundwater Basin. The remaining 26 percent is imported water obtained from EOCWD. EOCWD obtains its imported supply from the Municipal Water District of Orange County, which is imported from Metropolitan Water District of Southern California. The population of the service area had a total population of 68,088 in 2015. Approximately 77 percent of the service area's water demand is residential (City of Tustin 2015). The water demand in the service area in 2015 was 11,113 Acre-foot/Year (afy), met through locally pumped groundwater and purchased imported water from MWDOC. The projected demand for 2020 is 11,310 afy with single-family residential usage projected at 6,220 afy (City of Tustin 2015). Water generation is estimated to be 12,913 gallons per day (gpd), which would compute to approximately 14.5 afy. The estimated water consumption for the proposed Project would be approximately 0.1 percent of the projected service area demand for 2020.

In addition, the Project would also comply with Sections 4.303 and 4.304 of the CALGreen Code, which require indoor and outdoor water conservation measures such as low flush toilets, aerators on sinks and shower heads, other water-efficient appliances, and water-efficient automatic irrigation system controllers.

The Project site is currently developed as the Tustin Hills Racquet Club, which included existing entitlements and resources adequate to support potential needs. Due to the unique operational characteristics, EOCWD does not have water generation factors for the Racquet Club and thus, actual water usage information was not available for this type of use. While, the proposed Project would increase the demand for water supply once the residences are constructed it is anticipated that the average daily water demand 12,913 gpd as a result of the proposed Project would be adequately serviced by the City of Tustin and is within the projected growth and increased water demand within the service area. As indicated in the City of Tustin Water Department's Conditional Will Serve letter, dated September 19, 2019 and provided in Appendix J, water service is available from the City for the proposed Project (Tustin

2019). Further, based on the size of the development, the proposed Project would not require a water supply assessment. In addition, the Project would also comply with all required water conservation measures. Therefore, impacts would be less than significant, and no mitigation is required.

Response to Impact Question c): Less than Significant Impact. Wastewater services at the Project site are provided by the East Orange County Water District (EOCWD), through an inter-agency connection (EOCWD 2015). As discussed previously, wastewater from the proposed Project would consist of sewage flows and wastewater from the kitchens and bathrooms of the proposed 37 units and would be collected by EOCWD and ultimately treated by treatment facilities owned and operated by the Orange County Sanitation District (OCSD).

The EOCWD provides sanitary sewer service to the Project site (OCSD 2018). EOCWD is required to comply with the State Water Resources Control Board (SWRCB) Order No. 2006-0003-DWQ, entitled "Statewide General Waste Discharge Requirements for Sanitary Sewer Systems" (Order), adopted May 2, 2006 (EOCWD 2017). The Santa Ana Regional Water Quality Control Board (RWQCB) is the applicable RWQCB for the unincorporated area of Orange County. Wastewater from the proposed Project would consist of sewage flows and wastewater from the proposed 37 units and would be collected by EOCWD and ultimately be treated by treatment facilities owned and operated by the OCSD. The WDR ensures that adequate levels of treatment are provided to wastewater flows emanating from all land uses in the EOCWD service area.

The implementation of the proposed Project replaces the existing Tustin Hills Racquet Club, which currently generates wastewater. The elimination of this use would serve to offset the demand of the Project. Further, the Project would construct sewer collection facilities and a connection to the existing sewer line located in Pavillion Drive; however, it is not anticipated that the demands would exceed the wastewater treatment requirements of the RWQCB. The wastewater from the proposed Project would not require treatment beyond that provided to existing similar uses within the service area and would not exceed established treatment requirements in the WDR. Additionally, the Project will be required to follow all federal and State regulations pertaining to wastewater discharge, including the requirements established by the Santa Ana RWQCB under the NPDES permit.

The proposed Project would connect to the existing wastewater system currently serving the Project site. The Project would require the extension of distribution lines to serve the proposed Project. These improvements would be within the Project site and would not require offsite improvements or upgrading of any facilities by the service providers. The development of the proposed Project is anticipated to generate wastewater treatment demands consistent with residential use and would require the construction of collection lines from individual homes. The improvements would include the construction of a new 8-inch sewer line. In addition, a sewer lift station would be constructed to convey flows emanating from the site. The lift station would be enclosed in a structure and would contain the equipment and controls required for the lift station. Odor control facilities, such as a hydrogen peroxide storage tank and metering pump, are standard design requirements for such facilities. Final design of the lift station would be coordinated with EOCWD.

As indicated in the EOCWD's Service Commitment letter, dated January 9, 2019, and provided in Appendix J, sewer service would be provided by EOCWD (EOCWD 2019). It is anticipated that the wastewater system would have sufficient capacity to serve the proposed Project. In addition, the proposed Project would be required to pay development impact fees, as applicable. It is anticipated that the existing wastewater line serving the Project site would accommodate wastewater flow for the proposed project. Implementation

of the Project would not require or result in the construction of new wastewater treatment facility or expansion of existing facilities, as adequate capacity exists to serve the Project. Therefore, impacts would be less than significant, and no mitigation is required.

Response to Impact Question d): Less than Significant Impact. The Frank R. Bowerman Landfill, which is owned and operated by OC Waste & Recycling and is the closest landfill to the Project site, accepts a maximum of 11,500 tons per day (tpd) and an 8,500 tpd annual average, with a remaining capacity of 205 million cubic yards as of February 2008. Closure of the landfill is anticipated in 2053 (CalRecycle 2018a; OC Waste & Recycling 2018). The proposed Project involves demolition of the existing structures and paved surfaces on the Project site, which would generate debris to be hauled off site. The total demolition volume for the proposed Project is estimated as 3,128 tons. In accordance with the CALGreen Code, at least 50 percent of demolition and construction debris generated by the proposed Project would have to be diverted from landfills by recycling, reuse, and/or salvage.

Consistent with State requirements, a number of waste diversion programs, including residential curbside residential greenwaste collection, commercial self-haul greenwaste, commercial organics recycling, food waste composting, waste exchange, and residential buy-back (CalRecycle 2018b). According to California Department of Resources Recycling and Recovery (CalRecycle), Unincorporated Orange County had disposal rates of 5.1 pounds/persons/day in 2016 (CalRecycle 2018c). Using this rate, the proposed Project's 96 residents would generate approximately 489.6 pounds of solid wastes per day (or 89.4 tons per year).[11] This solid waste volume (2.2 cubic yards per day) would be considered a negligible amount of the daily capacity of 11,500 tpd at the Frank R. Bowerman Landfill and remaining capacity of 205 million cubic yards. Therefore, the Project's impacts associated with generation of solid waste in excess of State or local standards, or in excess of the capacity of local infrastructure would be less than significant, and no mitigation is required.

Response to Impact Question e): No Impact. During construction and operation, the proposed project would be required to comply with applicable federal, state, and local management and reduction laws and regulations regarding the proper disposal of solid waste, including the County of Orange Zoning Code as it relates to solid waste and recycling. State, County, and local agencies with regulatory authority related to solid waste include CalRecycle, and OC Waste & Recycling (County of Orange). Regulations specifically applicable to the proposed Project include the California Integrated Waste Management Act of 1989 (AB 939) and Section 4.408 of the CALGreen Code. Where feasible, the proposed Project would involve on-site material recycling such as the reuse of parking lot pavement for on-site road base. On-site material recycling would require the use of equipment such as a rock crusher. To avoid potential impacts related to dust and noise emissions, this equipment would be placed as far away as possible feasible from nearby residences.

AB 939, which requires every County and City in the State to prepare a Source Reduction and Recycling Element (SRRE) to its Solid Waste Management Plan, identifies how each jurisdiction will meet the State's mandatory waste diversion goal of 50 percent by and after the year 2000. Section 4.408 of the CALGreen Code requires preparation of a construction waste management plan that outlines ways in which the contractor would recycle and/or salvage for reuse a minimum of 50 percent of the nonhazardous construction and demolition debris. During the construction phase, the proposed Project would comply

[11] Assuming 8.88 cubic yards per ton, the Project would generate 793.9 cubic yards of wastes per year

with the CALGreen Code through the recycling and reuse of at least 50 percent of the nonhazardous construction and demolition debris from the Project site.

According to CalRecycle, Unincorporated Orange County has disposal rate targets of 5.9 pounds/person/day. In 2016, the County had disposal rates of 5.1 pounds/person/day (CalRecycle 2018c). In compliance with State requirements, Unincorporated Orange County is consistently diverting more than 50 percent of its waste stream. No conflict with statutes and regulations related to management and reduction of solid waste would occur and no mitigation is required.

Mitigation Program

No significant impacts pertaining to utilities and service systems are anticipated; therefore, no mitigation is required.

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3.20 Wildfire

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

Response to Impact Question a): No Impact. As indicated in Checklist Response 3.9g, Hazards and Hazardous Materials, the proposed Project site is surrounded by existing residential development and is currently developed with the Tustin Hills Racquet Club. According to the Orange County Very High Fire Hazard Severity Zones in Unincorporated LRA (Local Responsibility Areas) map, the Project site is not located within a Very High Fire Hazard Severity Zone (VHFHSZ) (OCPW 2018). The nearest designated VHFHSZ is located within the Peters Canyon Open Space Preserve, located approximately 0.75-mile northeast of the Project site (OCPW 2011). Construction of the proposed Project would not result in temporary road closures or physically interfere with an adopted emergency response plan. One entrance would be provided to the proposed development off of Pavillion Drive, to be used by future residents as an emergency access route to the surrounding roadway network. The proposed Project would not require closure of any major evacuation routes during construction or operation and would not obstruct emergency response plans. The proposed Project would require review by the Orange County Fire

Authority and other applicable County departments to ensure the proposed Project design provides adequate emergency vehicle access in compliance with the requirements of the County's Zoning Code. Therefore, the proposed Project would not interfere with an emergency response plan. Therefore, no impact would result, and no mitigation is required. Further, all proposed structures would be constructed in compliance with current building and fire codes.

The Project is not expected to exacerbate wildfire risks and create pollutants associated with wildfire or uncontrolled spread of wildfire. As described in Section 3.7, Geology and Soils, there are no known landslides near the Project site. Further, the Project site is not within the path of any known or potential landslides. The potential for slope stability hazards to adversely affect the proposed Project is considered low. Implementation of the Project would not impair an adopted emergency response plan or evacuation plan; expose Project occupants to pollutant concentrations from wildfire; require installation or maintenance of infrastructure that may exacerbate fire risk; or result in temporary or ongoing impacts to the environment.

Additionally, because Checklist Response threshold 3.20a applies only to those projects that are "located in or near state responsibility areas or lands classified as very high fire hazard severity zones", no impacts related to this threshold would occur. No mitigation is required.

Response to Impact Question b): No Impact. As indicated above, according to the Orange County Very High Fire Hazard Severity Zones in Unincorporated LRA map, the Project site is not located within a VHFHSZ (OCPW 2018).

The Project is not expected to exacerbate wildfire risks and create pollutants associated with wildfire or uncontrolled spread of wildfire. As described in Section 3.7, Geology and Soils, there are no known landslides near the Project site. Further, the Project site is not within the path of any known or potential landslides. The potential for slope stability hazards to adversely affect the proposed Project is considered low. Implementation of the Project would not expose Project occupants to pollutant concentrations from wildfire. Additionally, because Checklist Response threshold 3.20b applies only to those projects that are "located in or near state responsibility areas or lands classified as very high fire hazard severity zones", no impacts related to this threshold would occur. No mitigation is required.

Response to Impact Question c): No Impact. As indicated above, according to the Orange County Very High Fire Hazard Severity Zones in Unincorporated LRA map, the Project site is not located within a VHFHSZ (OCPW 2018).

All proposed structures would be constructed in compliance with current building and fire codes. Implementation of the Project would not require installation or maintenance of infrastructure that may exacerbate fire risk or result in temporary or ongoing impacts to the environment. Additionally, because Checklist Response threshold 3.20c applies only to those projects that are "located in or near state responsibility areas or lands classified as very high fire hazard severity zones", no impacts related to this threshold would occur. No mitigation is required.

Response to Impact Question d): No Impact. As indicated above, according to the Orange County Very High Fire Hazard Severity Zones in Unincorporated LRA map, the Project site is not located within a VHFHSZ (OCPW 2018).

The potential for slope stability hazards to adversely affect the proposed Project is considered low, as the site is not within a VHFHSZ, such that post-fire issues of flooding or landslides as a result of runoff, or slope instability would occur. Implementation of the Project would not result in temporary or ongoing impacts to the environment. Additionally, because Checklist Response threshold 3.20d applies only to those projects that are "located in or near state responsibility areas or lands classified as very high fire hazard severity zones", no impacts related to this threshold would occur. No mitigation is required.

Mitigation Program

No significant impacts pertaining to wildfire are anticipated; therefore, no mitigation is required.

References

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3.21 Mandatory Findings of Significance

Would the project:	Potentially Significant Impact	Less than Significant With Mitigation Incorporated	Less than Significant Impact	No Impact
a) Does the project have the potential to substantially degrade the quality of the environment, substantially reduce the habitat of a fish or wildlife species, cause a fish or wildlife population to drop below self-sustaining levels, threaten to eliminate a plant or animal community, substantially reduce the number or restrict the range of a rare or endangered plant or animal or eliminate important examples of the major periods of California history or prehistory?	☐	☒	☐	☐
b) Does the project have impacts that are individually limited, but cumulatively considerable? ("Cumulatively considerable" means that the incremental effects of a project are considerable when viewed in connection with the effects of past projects, the effects of other current projects, and the effects of probable future projects)?	☐	☐	☒	☐
c) Does the project have environmental effects which will cause substantial adverse effects on human beings, either directly or indirectly?	☐	☐	☒	☐

Response to Impact Question a): Less than Significant Impact with Mitigation Incorporated. There are no sensitive biological resources, habitats, or species on the Project site that would be affected by the Project. As indicated in Section 3.4 (d) of this IS/MND, given the current condition and the existing trees and vegetation on the site, migratory birds may nest on the Project site. However, if tree removal occurs during the nesting season, implementation of Mitigation Measure (MM) BIO-1 would ensure that potential impacts on migratory birds would be less than significant.

As indicated in Section 3.5, there are no historic resources on the Project site that would be impacted by the proposed Project. As noted in Section 3.5, there is always the possibility that buried archaeological resources may be uncovered during grading and excavation activities. The Project, in conjunction with cumulative development, could lead to accelerated excavation of previously unknown archaeological, and paleontological resources. However, given the developed nature of the site, the potential for uncovering resources is low. Additionally, each development proposal would undergo environmental review and would be subject to similar resource protection requirements as the Project. Implementation of SC CUL-1 and SC CUL-2 provide for the appropriate handling and data recovery of any resources that may be identified. With implementation of the proposed standard conditions and compliance with the regulatory requirements, the Project's potential contribution to cumulative impacts would be less than significant.

Response to Impact Question b): Less than Significant Impact. As identified in the preceding analyses, all Project-level impacts have been determined to be less than significant or mitigated to a level considered less than significant with incorporation of mitigation measures. In keeping with the CEQA Guidelines, the cumulative evaluation includes: (1) specific projects that, because of their size or proximity to the Project site, have the potential to cause cumulative impacts; (2) considers the adopted general plans for the affected local jurisdictions; and (3) includes regional development projections.

As previously documented, the area surrounding the Project site is predominately built-out; therefore, there are limited cumulative projects. There are five projects in the general vicinity of the Project that have been identified, the top four are in incorporated Orange County, and the last one is within the City of Tustin limits. These projects, which are identified below, have been approved but not yet constructed:

- Clearwater at North Tustin (PA170040), located at 11901 Newport Avenue, North Tustin, CA 92705. The site is approximately 1.2 miles northwest of the Project site. The Clearwater project proposes a Specific Plan Amendment to add a new land use designation of Residential Care Facility (RCF) overlay district; development of a 100-unit Senior Living Facility consisting of 72 assisted living units and 28 memory care units. This project is anticipated to commence in the first quarter of 2020, followed by an estimated 1-year of overall construction.
- Cowan Heights Residential Development Project (PA 160051), located at 9922 Newport Avenue, Santa Ana, CA. The site is approximately 2.0 miles north of the Project site. The Cowan Heights project proposes a residential development of 16 single-family homes. Approvals included a zone change, use permit, vesting tentative tract map, and other permits necessary for the development of the site. No project start date is available at this time for this project.
- Brier Lane Subdivision (TT18071) – The project is subdivision of 2.49 acres for 5 single-family detached lots with a minimum area of 20,000 square feet in the unincorporated North Tustin area. The two front lots fronting on Brier Lane would have driveway access from Brier Lane; and the other three lots would be accessed by a proposed private cul-de-sac street that may be gated. The new residences are anticipated to be two-story wood frame structures.
- Peter's Canyon Regional Park – General Development Plan and Resource Management Plan (IP 16-198). The project is the implementation of a General Development Plan (GDP) and a Resource Management Plan (RMP), which provides guidance on overall future park development and resource management at Peters Canyon Regional Park. The GDP proposes improvements in seven areas of the park to enhance public access and recreation. These include improvements to existing trails and parking and development of new park facilities. The RMP will ensure long-term guidance on park resource management.

- Simon Ranch Reservoir and Booster Pump Station Replacement – The site is located at the intersection of Outlook Lane and Valhalla Drive in North Tustin. Planning efforts began in 2006 when an evaluation of the reservoir indicated that the facility's useful life was coming to an end. Total project costs have been estimated at $9.4 million and will be funded by proceeds of the 2013 Water Bond. The project is in the design phase and construction is expected to begin in the spring of 2017.

The Project would contribute to potential significant environmental impacts related to Biological Resources Geology and Soils, and Tribal Cultural Resources. For all these topics mitigation has been proposed that reduces the impacts to less than significant. The Project would not contribute to cumulatively considerable impacts for these topical areas because the potential impacts are site-specific. A potential short-term impact during construction was also identified for Transportation and Traffic. A mitigation measure (MM TRA-1) was identified that would reduce the impact to less than significant. Given the distance to other cumulative projects, the Project would not contribute to a cumulatively considerable impact.

For the other topical areas where the Project would result in less than significant impacts, cumulatively considerable impacts would not occur because of the infill nature of the Project and distance from the other cumulative projects.[12] For example, when evaluating cumulative aesthetic impacts a number of factors must be considered. In order for a cumulative aesthetic impact to occur, the proposed elements of the cumulative projects would need to be seen together or in proximity to each other. If the projects were not in proximity to each other, the viewer would not perceive them in the same scene. For other issues (e.g., hydrology and water quality, air quality, and GHG) regional programs have been established to ensure the cumulative conditions will result in regional compliance with established standards. As discussed in Section 3.3, question (c) the SCAQMD guidance on cumulative impacts provides that if the Project level air quality impact is less than significant, then the cumulative impact is also not considered cumulatively considerable. Thus, the Project's impacts would be limited and its contribution to cumulative impacts would not be cumulatively considerable. Additionally, other related projects that could contribute to cumulative effects would be required to conduct appropriate CEQA analyses and prepare documents on a project-by-project basis. Therefore, the proposed Project would not have impacts that are individually limited, but cumulatively considerable.

Response to Impact Question c): Less than Significant Impact. Based on the environmental analysis provided in this Initial Study, with compliance with applicable regulatory requirements and standard conditions the Project would have no impact or less than significant impacts on the following environmental issue areas: Aesthetics, Agriculture and Forestry Resources, Air Quality, Cultural Resources, Energy, Greenhouse Gas Emissions, Hazards and Hazardous Materials, Hydrology and Water Quality, Land Use and Planning, Noise, Mineral Resources, Population and Housing, Public Services, Recreation, Utilities and Service Systems, and Wildfire.

[12] The topical areas where the Project has been identified as having less than significant impacts, includes: Aesthetics, Air Quality, Cultural Resources, GHG Emissions, Hydrology and Water Quality, Land Use and Planning, Noise, Public Services, Recreation, and Utilities and Service Systems. Cultural Resources is discussed above as part of question (b).

The proposed Project's impacts on the following issue areas would be less than significant with the implementation of Project-specific mitigation measures: Biological Resources, Geology and Soils, Transportation, and Tribal Cultural Resources. All impacts would be less than significant after mitigation.

Thus, the proposed Project would not result in environmental effects that would cause substantial adverse effects on human beings, either directly or indirectly, with the implementation of mitigation measures. All impacts would be less than significant after mitigation.

Section 4: Regulatory Requirements, Standard Conditions of Approval, and Mitigation Measures

The analysis in Section 3.0, Environmental Evaluation, of this IS/MND shows that implementation of the Project would not result in any environmental impacts in the following topical areas: Mineral Resources and Wildfire.

Additionally, less than significant impacts would occur related to the following topical areas, without mitigation: Aesthetics, Agriculture and Forestry Resources, Air Quality, Cultural/Scientific Resources, Energy, Greenhouse Gas Emissions, Hazards and Hazardous Materials, Hydrology and Water Quality, Land Use and Planning, Noise, Population and Housing, Public Services, Recreation, and Utilities and Service Systems.

Table 35, Summary of Mitigation Program, identifies the regulatory requirements (RRs), Standard Conditions (SC) of Approval, and mitigation measures (MMs) that are applicable to Biological Resources, Geology and Soils, Transportation/Traffic, Tribal Cultural Resources, and Mandatory Findings of Significance.

With incorporation of the mitigation program for the Project, as summarized in Table 35, all potential environmental impacts to Biological Resources, Geology and Soils, Hazards and Hazardous Materials, Transportation/Traffic, Tribal Cultural Resources, and Mandatory Findings of Significance would be reduced to a less than significant level. Therefore, no significant and unavoidable impacts would result due to Project implementation.

Table 35: Regulatory Requirements, Standard Conditions of Approval, and Mitigation Measures

Aesthetics	
SC AES-1	A. Prior to issuance of any building permit, the applicant shall demonstrate that all exterior lighting has been designed and located so that all direct rays are confined to the property in a manner meeting the approval of the Manager, Building and Safety Permit Services. B. Prior to the approval of final inspection, applicant shall provide a letter from the electrical engineer, licensed landscape architect, or licensed professional designer, that a field test has been performed after dark and the light rays are confined to the premises. The letter shall be submitted to the Manager, Inspection for review and approval. (County Condition of Approval LG01)
SC AES-2	Landscaping for the project shall be designed to comply with the County's Water Efficient Landscape Ordinance (Ord. No. 16-002) and with the Guidelines for Implementation of the Water Efficient Landscape Ordinance. A. Prior to the issuance of precise grading permits, the applicant shall submit a detailed landscape plan for the project area which shall be approved by the Manager, Building and Safety in consultation with the Manager, OC Development Services. The plan shall be certified by a landscape design professional, licensed landscape architect or a licensed landscape contractor, as required, as taking into account approved preliminary landscape plan (if any), County Standard Plans for landscape areas, adopted plant

Table 35: Regulatory Requirements, Standard Conditions of Approval, and Mitigation Measures

	palette guides, applicable scenic and specific plan requirements, and water conservation measures contained in the County of Orange Landscape Code (Ord. No. 16-002). B. Prior to the approval of final inspection, applicant shall install said landscaping and irrigation system and shall have a landscape design professional, licensed landscape architect or licensed landscape contractor, certify that it was installed in accordance with the approved plan. C. Prior to the approval of final inspection, the applicant shall furnish said installation certification, including an irrigation management report for each landscape irrigation system, and any other implementation report determined applicable, to the Manager, Building and Safety. (County Standard Condition LA02)
Air Quality	
RR AQ-1	During construction, the developer shall comply with South Coast Air Quality Management District ("SCAQMD") Rules 402 and 403, in order to minimize short-term emissions of dust and particulates. SCAQMD Rule 402 requires that air pollutant emissions not be a nuisance off site. SCAQMD Rule 403 requires that fugitive dust be controlled with the best available control measures so that the presence of such dust does not remain visible in the atmosphere beyond the property line of the emission source. This requirement shall be included as "Notes" on the contractor specifications. Table 1 of Rule 403 prescribes the Best Available Control Measures that are applicable to all construction projects. The developer shall provide the Manager of Building & Safety, or designee, with an SCAQMD-approved Dust Control Plan or other sufficient proof of compliance with Rule 403, prior to issuance of a grading permit.
RR AQ-2	Architectural coatings shall be selected so that the volatile organic compound ("VOC") content of the coatings is compliant with SCAQMD Rule 1113. This requirement shall be included as notes on the contractor specifications and shall be reviewed by the Manager of Building & Safety, or designee, for compliance with this requirement prior to issuance of a building permit.
Biological Resources	
MM BIO-1	Pre-construction surveys for nesting birds are required immediately prior to construction (e.g., within seven days) during the nesting bird season (February 15 to September 1). This requirement shall be included as "Notes" on the contractor specifications and shall be reviewed by the Manager of Building & Safety, or designee, for compliance with this requirement prior to issuance of a grading permit.
Cultural/Scientific Resources	
RR CUL-1	In the unlikely event that suspected human remains are uncovered during construction, all activities in the vicinity of the remains shall cease and the contractor shall notify the County Coroner immediately pursuant to Section 7050.5 of the California Health and Safety Code.

Table 35: Regulatory Requirements, Standard Conditions of Approval, and Mitigation Measures

SC CUL-1	Prior to the issuance of the first grading permit, the applicant shall provide written evidence to the Manager, Building and Safety, the applicant has retained a County-certified archaeologist, to observe grading activities and salvage and catalogue archaeological resources as necessary. The archaeologist shall be present at the pre-grade conference, shall establish procedures for archaeological resource surveillance, and shall establish, in cooperation with the applicant, procedures for temporarily halting or redirecting work to permit the sampling, identification, and evaluation of the artifacts as appropriate. If archaeological resources are found to be significant, the archaeological observer shall determine appropriate actions, in cooperation with the project applicant, for exploration and/or salvage. Prior to the release of the grading bond the applicant shall obtain approval of the archaeologist's follow-up report from the Manager, Building and Safety. The report shall include the period of inspection, an analysis of any artifacts found and the present repository of the artifacts. The archaeologist shall prepare excavated material to the point of identification. Applicant shall offer excavated finds for curatorial purposes to the County of Orange, or its designee, on a first refusal basis. These actions, as well as final mitigation and disposition of the resources, shall be subject to the approval of the Manager, Building and Safety. Applicant shall pay curatorial fees if an applicable fee program has been adopted by the Board of Supervisors, and such fee program is in effect at the time of presentation of the materials to the County of Orange or its designee, all in a manner meeting the approval of the Manager, Building and Safety. (County Standard Condition A02).
	Geology and Soils
SC GEO-1	Prior to the issuance of a grading permit, the applicant shall submit a geotechnical report to the Manager, Building and Safety, for approval. The report shall include the information and be in the form as required by the Grading Code and Grading Manual.13 (County Standard Condition G01)
SC CUL-2	Prior to the issuance of the first grading permit, the project applicant shall provide written evidence to the Manager, Building and Safety, that applicant has retained a County certified paleontologist to observe grading activities and salvage and catalogue fossils as necessary. The paleontologist shall be present at the pre-grade conference, shall establish procedures for paleontological resource surveillance, and shall establish, in cooperation with the applicant, procedures for temporarily halting or redirecting work to permit sampling, identification, and evaluation of the fossils. If the paleontological resources are found to be significant, the paleontologist shall determine appropriate actions, in cooperation with the applicant, to ensure proper exploration and/or salvage.

[13] The *Grading Manual* provides detailed compilation of rules, procedures, and interpretations necessary to carry out the provisions of the *OC Grading and Excavation Code*. The *Grading Manual* contains provisions specifying what needs to be addressed in geotechnical studies. Evaluation of the grading plans in compliance with the requirements of the Grading Manual would ensure the Project is in compliance with the OC Grading and Excavation Code.

Table 35: Regulatory Requirements, Standard Conditions of Approval, and Mitigation Measures

	Prior to the release of the grading bond the applicant shall submit the paleontologist's follow-up report for approval by the Manager, Permit Services. The report shall include the period of inspection, a catalogue and analysis of the fossils found, and the present repository of the fossils. Applicant shall prepare excavated material to the point of identification and offer excavated finds for curatorial purposes to the County of Orange, or its designee, on a first refusal basis. These actions, as well as final mitigation and disposition of the resources, shall be subject to approval by Manager, Permit Services. Applicant shall pay curatorial fees if an applicable fee program has been adopted by the Board of Supervisors, and such fee program is in effect at the time of presentation of the materials to the County of Orange or its designee, all in a manner meeting the approval of the Manager, Permit Services. (County Standard Condition A04)
MM GEO-1	Prior to approval grading plans, the Applicant shall demonstrate, to the satisfaction of the Manager, Building and Safety, that the recommendations in the *Geotechnical Investigation* for the *Property Transaction and Proposed Single Family Residential Tract Development 11782 Simon Ranch Road Santa Ana, California* (dated May 6, 2017, and prepared by Geocon West, Inc) and in any future geotechnical reports have been fully and appropriately incorporated. These recommendations include, but are not limited to, the following geotechnical areas: • General • Soil and Excavation Characteristics • Minimum Resistivity, pH, and Water-Soluble • Grading • Slope Construction • Shrinkage • Foundation Design • Foundation Settlement • Miscellaneous Foundations • Lateral Design • Concrete Slabs-on-Grade • Preliminary Pavement Recommendations • Retaining Walls • Retaining Wall • Temporary Excavations • Stormwater Infiltration • Surface Drainage • Plan Review

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Hazards and Hazardous Materials	
RR HAZ-1	Transport of materials deemed as hazardous must comply with the requirements of Title 22, Division 4.5 of the *California Code of Regulations*, the U.S. Department of Transportation regulations in the *Code of Federal Regulations* (specifically, Title 49, Hazardous Materials Transportation Act and Title 40, Part 263, Subtitle C of Resource Conservation and Recovery Act), California Department of Transportation (Caltrans) standards, and Occupational Safety and Health Administration (OSHA) standards.
RR HAZ-2	Prior to issuance of a demolition permit for any buildings or facilities, building materials shall be assessed by a qualified Environmental Professional as defined in Section 312.10 of 40 CFR Part 312 for the presence of lead-based paint (LBP), asbestos-containing materials (ACM), and other common hazardous building materials (e.g., polychlorinated biphenyl [PCB]-containing lighting ballasts and mercury-containing light tubes and switches). If determined to be present, the Applicant shall prepare an abatement plan for their removal and safe transport in compliance with State and federal regulations, including Occupational Safety and Health Administration (OSHA) regulations in the Code of Federal Regulations (specifically Title 29, Part 1926) and South Coast Air Quality Management District (SCAQMD) Rule 1403. The abatement plan shall meet the satisfaction of the Manager, Orange County Health Care Agency (OCHCA)/Hazardous Materials Program.
Hydrology and Water Quality	
SC HWQ-1	Prior to the issuance of any grading or building permits, the applicant shall demonstrate compliance with California's General Permit for Stormwater Discharges Associated with Construction Activity by providing a copy of the Notice of Intent (NOI) submitted to the State Water Resources Control Board and a copy of the subsequent notification of the issuance of a Waste Discharge Identification (WDID) Number; or other proof of filing in a manner meeting the satisfaction of the Manager, Permit Intake. Projects subject to this requirement shall prepare and implement a Stormwater Pollution Prevention Plan (SWPPP). A copy of the current SWPPP shall be kept at the Project site and be available for County review on request. (County Standard Condition WQ04)
SC HWQ-2	Prior to the issuance of any grading or building permit, the applicant shall submit an Erosion and Sediment Control Plan (ESCP) in a manner meeting approval of the Manager, Permit Intake, to demonstrate compliance with the County's NPDES Implementation Program and state water quality regulations for grading and construction activities. The ESCP shall identify how all construction materials, wastes, grading or demolition debris, and stockpiles of soil, aggregates, soil amendments, etc. shall be properly covered, stored, and secured to prevent transport into local drainages or coastal waters by wind, rain, tracking, tidal erosion or dispersion. The ESCP shall also describe how the applicant will ensure that all BMPs will be maintained during construction of any future public rights-of-way. The ESCP shall be updated as needed to address the changing circumstances of the Project site. A copy of the current ESCP shall be kept at the Project site and be available for County review on request. (County Standard Condition WQ05)

Table 35: Regulatory Requirements, Standard Conditions of Approval, and Mitigation Measures

Public Services	
SC PS-1	Prior to issuance of a building permit, the applicant shall comply with local park code either through the payment of in-lieu fees and/or the application of any potential local park credits due to the development of on-site private recreational facilities including; pool, spa, restroom facilities, overhead shade structure, BBQ, fireplace, seating, pocket park, dog park, trail access in compliance with the County's Local Park Code (Zoning Code Section 7-9- 500, et seq) (currently $8,800 per unit) (SG17 Local Park Code). Fee payment shall be in the amount in effect at the time of issuance.
Recreation	
SC PS-1, provided in Section 3.15, Public Services, would be applicable to the Project.	
Transportation/Traffic	
SC TRA-1	Prior to the issuance of any grading permits, the applicant shall provide adequate sight distance per Standard Plan 1117 at all street intersections, in a manner meeting the approval of the Manager, OC Infrastructure/Traffic Engineering. The applicant shall make all necessary revisions to the plan to meet the sight distance requirement such as removing slopes or other encroachments from the limited use area in a manner meeting the approval of the Manager, Building and Safety. (County Condition of Approval T10)
SC TRA-2	Prior to the issuance of building permits, the applicant shall pay applicable fees for the Major Thoroughfare and Bridge Fee Program for the Foothill/Eastern Transportation Corridor, in a manner meeting the approval of the Manager, Building and Safety. (County Condition of Approval T09)
MM TRA-1	Prior to issuance of a building permit, a construction Traffic Management Plan (TMP) shall be prepared to ensure safe and efficient traffic flow throughout the Project study area during all phases of construction. The TMP shall address routing, hours, provision for over-sized equipment, and site access, including construction in the Pavillion Drive/Simon Ranch Road right-of way. The TMP shall include guidelines for pedestrian and worker safety; safe and adequate access to all properties during construction activities; street markings and traffic control; notification of emergency personnel; and restoration of the street after construction. The TMP shall be prepared to the satisfaction of the Manager, Building and Safety.
Tribal Cultural Resources	
RR TCR-1	Should evidence of human remains be discovered during project construction, the Orange County Coroner (OCC) shall be immediately notified of the discovery. Evidence of human remains requires mandatory compliance with the provisions of State Health and Safety Code Section 7050.5, which restricts further disturbance in the vicinity of the discovery, defined herein as a 50-foot radius, until the OCC has made a determination within 2 business days of the origin and disposition pursuant to PRC Section 5097.98. If the remains are determined to be Native American, the OCC shall notify the NAHC within 24 hours that remains have been discovered. The NAHC shall determine the identity of the Most Likely

Table 35: Regulatory Requirements, Standard Conditions of Approval, and Mitigation Measures

	Descendant. The Most Likely Descendant shall complete the inspection of the remains within 48 hours of notification by the NAHC.
MM TCR-1	If unanticipated archaeological resources or deposits are discovered during earth-moving activities, OCPW will implement the following measures. All work will halt within a 50-foot radius of the discovery. OCPW will have a qualified professional archaeologist assess the significance of the find. If the resources are Native American in origin, the County shall coordinate with the Tribe regarding evaluation, treatment, curation, and preservation of these resources. The archaeologist will have the authority to modify the no-work radius as appropriate, using professional judgment in consultation with OCPW. Work will not continue within the no-work radius until the archaeologist conducts sufficient research and evidence and data collection to establish that the resource is either: (1) not cultural in origin; or (2) not potentially eligible for listing on the CRHR. If a potentially eligible resource is encountered, then the archaeologist and OCPW, as lead agency, in consultation with the Tribe, will arrange for either: (1) avoidance of the resource, if possible; or (2) test excavations to evaluate eligibility, and if eligible, an attempt to resolve adverse effects to determine appropriate mitigation. The assessment of eligibility will be formally documented in writing as verification that the provisions in CEQA for managing unanticipated discoveries and PRC Section 5024 have been met.
Mandatory Findings of Significance	
MM BIO-1, SC CUL-1, and SC CUL-2, above, would reduce impacts to Mandatory Findings of Significance to a less than significant level.	
Notes: MM: mitigation measure; SC: standard condition; RR: regulatory requirement.	

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