



CITY OF TUSTIN
COMMUNITY DEVELOPMENT DEPARTMENT
300 Centennial Way, Tustin, CA 92780
(714) 573-3100

INITIAL STUDY / NEGATIVE DECLARATION
17802 IRVINE BOULEVARD RESIDENTIAL PROJECT
September 2022

A. BACKGROUND

Project Title: 17802 Irvine Boulevard Residential Project

Lead Agency: City of Tustin, 300 Centennial Way, Tustin, California 92780

Contact Person and phone number: Leila Carver, Senior Planner Consultant
(714) 573-3126
lcarver@tustinca.org

Project Location: 17802 and 17842 Irvine Boulevard
Tustin, CA 92780

Project Sponsor's Name and Address: Intracorp Socal-1, LLC
895 Dove Street, Suite 400
Newport Beach, California 92660

General Plan Land Use Designation: Professional Office – PO

Zoning Designation: Retail Commercial – C1 with a Parking Overlay – P

Project Description: The Project proposes to demolish the two existing office buildings (totaling approximately 44,948 SF) and redevelop the 2.07-acre site with a Multifamily housing development consisting of 18 duplexes and four single-family residences (40 units total). Additionally, the proposed Project would include landscaping, parking, and utility/stormwater improvements.

Surrounding Land Uses and Setting: Land uses to the north of the Project site include Columbus Tustin Park and Columbus Tustin Middle School. Land uses to the south and east include residences. Land uses to the west include office uses.

Other public agencies whose approval is required: None.

Attachments:

Figure 2-1: Regional Location
Figure 2-2: Local Vicinity
Figure 2-3: Aerial View
Figure 2-4a: Site Photos
Figure 2-4b: Site Photos
Figure 3-1: Conceptual Site Plan
Figure 3-2a: Elevations
Figure 3-2b: Elevations
Figure 3-2c: Elevations
Figure 3-2d: Elevations
Figure 3-2e: Elevations
Figure 3-2f: Elevations
Figure 3-3: Conceptual Lighting Plan
Figure 3-4: Conceptual Landscape Plan

Appendices:

Appendix A: Air Quality, Greenhouse Gas, Energy Impact Analysis
Appendix B: Cultural Resources Study
Appendix C: Historic Assessment Memorandum
Appendix D: Geotechnical and Infiltration Evaluation
Appendix E: Paleontological Resources Study
Appendix F: Phase I Environmental Site Assessment
Appendix G: Preliminary Water Quality Management Plan
Appendix H: Preliminary Hydrology Study
Appendix I: Noise Study
Appendix J: Vehicle Miles Traveled (VMT) Analysis
Appendix K: Mitigation Monitoring and Reporting Program

1. INTRODUCTION

PURPOSE OF THE INITIAL STUDY

This Initial Study has been prepared in accordance with the following:

- California Environmental Quality Act (CEQA) of 1970 (Public Resources Code Sections 21000 et seq.); and
- California Code of Regulations, Title 14, Division 6, Chapter 3 (State CEQA Guidelines, Sections 15000 et seq.) as amended and approved on December 28, 2018.

Pursuant to CEQA, this Initial Study has been prepared to analyze the potential for significant impacts on the environment resulting from implementation of the 17802 Irvine Boulevard Residential Project, as described in greater detail in Section 3.0 below. As required by State CEQA Guidelines (“Guidelines”) Section 15063, this Initial Study is a preliminary analysis prepared by the Lead Agency, the City of Tustin to determine if a Negative Declaration or an Environmental Impact Report is required for the Project.

This Initial Study informs City of Tustin decision-makers, affected agencies, and the public of potentially significant environmental impacts associated with the implementation of the project. A “significant effect” or “significant impact” on the environment means “*a substantial, or potentially substantial, adverse change in any of the physical conditions within the area affected by the project*” (Guidelines Section 15382).

Given the Project's broad scope and level of detail, combined with previous analyses and current information about the site and environs, the City’s intent is to adhere to the following CEQA principles:

- Provide meaningful early evaluation of site planning constraints, service and infrastructure requirements, and other local and regional environmental considerations. (Public Resources Code Section 21003.1)
 - Encourage the incorporation of environmental considerations into project conceptualization, design, and planning at the earliest feasible time. (Guidelines Section 15004[b][3])
- Specify mitigation measures for reasonably foreseeable significant environmental effects and commit the City and applicant to future measures containing performance standards to ensure their adequacy when detailed development plans and applications are submitted. (Guidelines Section 15126.4)

DOCUMENT ORGANIZATION

This Initial Study includes the following sections:

Section 1. Introduction

Provides information about CEQA and its requirements for environmental review and explains that an Initial Study was prepared by the State of California to evaluate the proposed project's potential impact to the physical environment, and to determine if a Negative Declaration or an Environmental Impact Report (EIR) is required.

Section 2. Environmental Setting

Provides information about the proposed Project's location.

Section 3. Project Description

Includes a description of the proposed Project's physical features and characteristics.

Section 4. Environmental Checklist

Includes the Environmental Checklist from the CEQA Guidelines and an explanation of the various impact determinations.

Section 5. Environmental Analysis

This section contains the completed Initial Study Checklist and assesses the significance level under each environmental impact threshold. Each environmental issue identified in the Initial Study Checklist contains an assessment and discussion of Project-specific and cumulative impacts associated with each subject area. Where the evaluation identifies potentially significant effects, as identified in the Checklist, mitigation measures are provided to reduce such impacts to less than significant levels.

2. ENVIRONMENTAL SETTING

PROJECT LOCATION

The Project site is located in the western portion of the City of Tustin within Orange County. The City of Tustin is directly east of the City of Santa Ana and directly south of the unincorporated community of North Tustin and the City of Orange. Further, Tustin is approximately 8 miles southeast of Anaheim, 30 miles southwest of the City of Los Angeles, and 30 miles southeast of the City of Riverside. The regional location of the Project site is shown in Figure 2-1, *Regional Location*.

The Project site is located on the southeast corner of Irvine Boulevard and Prospect Avenue at 17802 and 17842 Irvine Boulevard, Tustin, 92780. The 2.07-acre Project site consists of two parcels identified by Assessor's Parcel Numbers (APN) 401-141-13 and 401-141-57. The Project site is bound by Irvine Boulevard to the north, Prospect Park to the south, and Prospect Avenue to the west. Regional access to the Project site is provided via Interstate 5 (I-5) and State Route 55 (SR-55) (known locally as Costa Mesa Freeway). Local access to the Project site is provided via Irvine Boulevard and Prospect Avenue. The Project site and the surrounding area is shown in Figure 2-2, *Local Vicinity*.

EXISTING LAND USES

The Project site is currently developed with two commercial office buildings that are two-stories in height, a parking lot, and landscaping. A concrete masonry unit (CMU) block wall exists along the southern and eastern property lines. The site is rectangular in shape and relatively flat with elevations ranging from 132 to 135 feet above mean sea level. Access to the site is provided via three driveways, including two driveways on Irvine Boulevard, one shared and one private, and a shared driveway on Prospect Avenue. Existing conditions of the Project site and adjacent uses are shown in Figures 2-3, *Aerial View* and Figures 2-4a-b, *Site Photos*.

EXISTING LAND USE AND ZONING

The Project site has an existing Tustin General Plan land use designation of Professional Office (PO) and a zoning designation of Retail Commercial (C1) with a Parking Overlay (P). The PO land use designation provides areas for development of primarily professional offices and other supporting uses. The C1 zoning district allows for uses such as general retail businesses, service businesses and office uses, including professional and general.

SURROUNDING LAND USES

The Project site is located within a developed area within the City of Tustin as described below:

North: Area north of the Project site is designated and zoned as Public/Institutional (PI). Land uses to the north of the Project site include Columbus Tustin Park and Columbus Tustin Middle School.

West: The parcel directly west of the Project site is designated as Professional Office (PO) and zoned as Retail Commercial (C1) with a Parking Overlay (P) and includes a medical office. Further west, land uses include office buildings and single-family

residences zoned, respectively, as Professional (PR) and Single Family Residential (R-1) zoning.

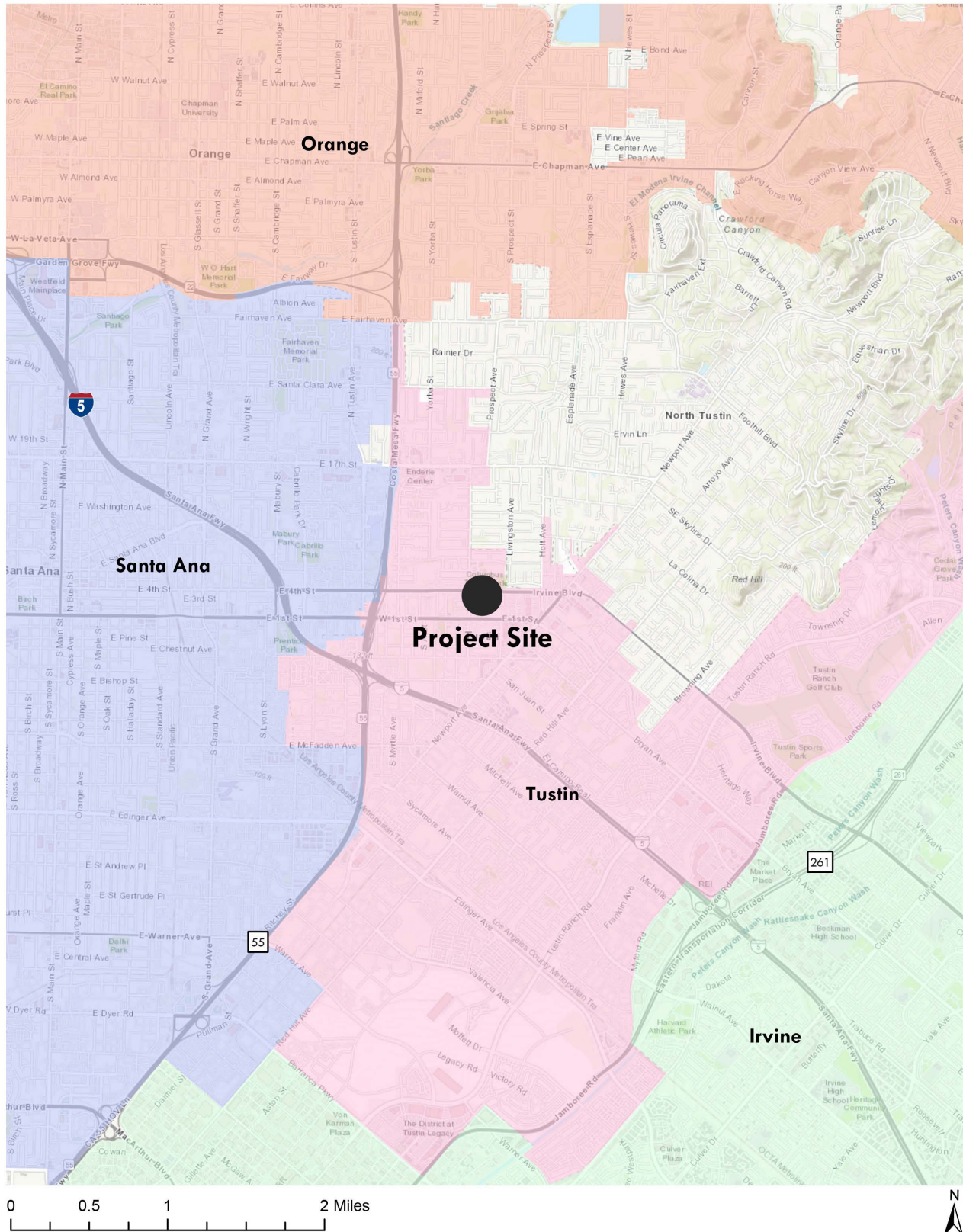
South: Land uses south of the Project site are designated as High Density Residential (HDR) followed by Planning Community Commercial/Business (PCCB) and Downtown Commercial Core Specific Plan (DCCSP). Uses to the south are zoned Planned Community Residential (PC RES). Area to the south of the Project site is developed with Prospect Park, a high-density residential community.

East: Land uses east of the Project site are designated as High Density Residential (HDR) and Planned Community Commercial/Business (PCCB). Uses to the east are zoned Planned Community Residential (PC RES). Area to the east of the Project site is developed with Palmwood Gardens, a condominium community.

Table 2-1. Surrounding Land Use Designations

Direction	Land Use	Zoning
North	Public/Institutional (PI)	Public and Institutional (PI)
West	Professional Office (PO)	Retail Commercial (C-1) with a Parking Overlay, Professional (PR)
	Low Density Residential (LDR)	Single Family Residential (R-1)
South	High Density Residential (HDR), Planning Community Commercial/Business (PCCB) and Downtown Commercial Core Specific Plan (DCCSP)	Planned Community Residential (PC RES)
East	High Density Residential (HDR) and Planned Community Commercial/Business (PCCB)	Planned Community Residential (PC RES)

Regional Location

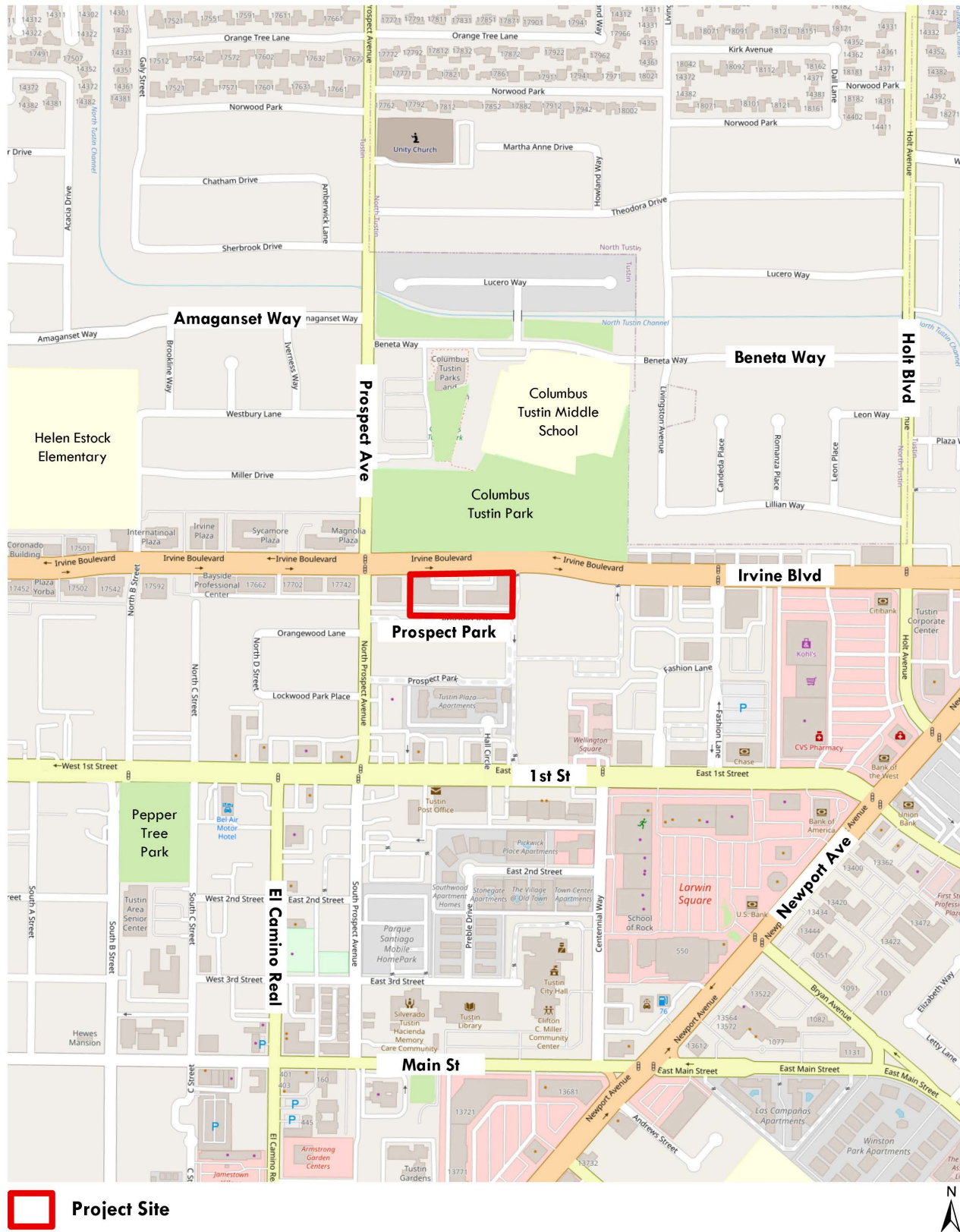


17802 Irvine Boulevard
City of Tustin

Figure 2-1

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Local Vicinity

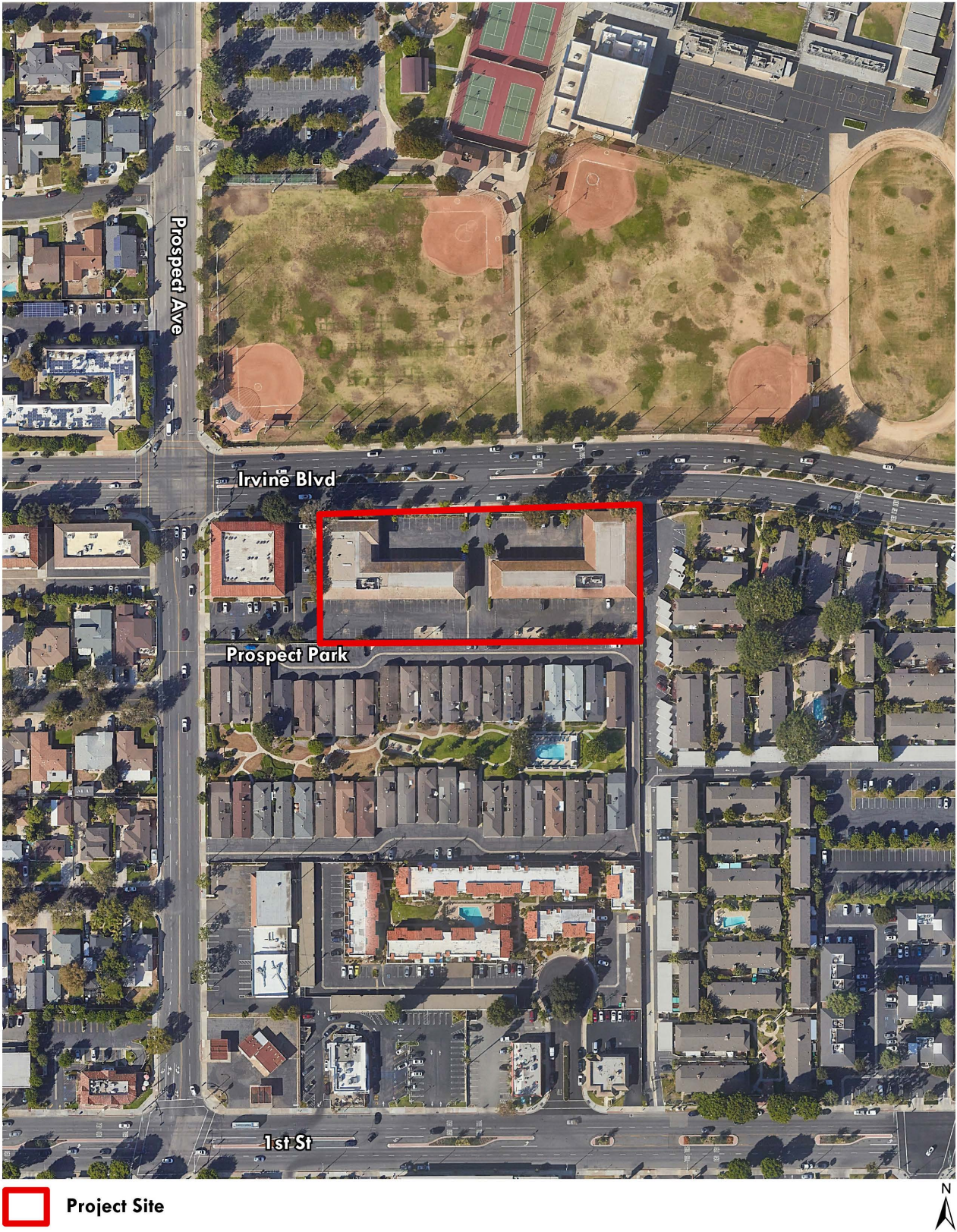


17802 Irvine Boulevard
City of Tustin

Figure 2-2

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Aerial View



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Site Photos



Northwest corner of site from Irvine Blvd.



Southwest bound view from the northeast corner on Irvine Blvd.

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Site Photos



View from southwest corner of site in parking lot.



View from southeast corner looking northwest.

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3. PROJECT DESCRIPTION

PROJECT OVERVIEW

The Project proposes to demolish the two existing office buildings (totaling approximately 44,948 square feet [SF]) and redevelop the 2.07-acre site with 40 residential units. The 40-unit development would include eighteen (18) duplexes (36 units) and four (4) single-family residences, with thirty-eight (38) market rate and two (2) affordable residential units. Additionally, the proposed Project would include landscaping, parking, and utility/stormwater improvements. Approvals required for the Project include a General Plan Amendment and zone change to develop the proposed residential multi-family community with private drive aisles, parking, and landscaping. Figure 3-1, *Conceptual Site Plan* illustrates the Project as proposed.

PROJECT DESCRIPTION

Development Summary

The proposed Project would construct 40 units on the 2.07-acre site, which would result in a density of 19.3 units per acre. The 40-unit development would include eighteen (18) duplexes (36 units total) and four (4) single-family residences, with thirty-eight (38) market rate and two (2) affordable residential units. With the inclusion of two very low-income units, the Project qualifies for a density bonus, which would allow for a reduction in front yard setbacks from the City's typical development standards for multifamily housing. The units would be comprised of four different floorplans that would be grouped into four building types. Table 3-1 provides a summary of the proposed apartments.

Table 3-1: Dwelling Unit Summary

Unit Type	Bedrooms	Bathrooms	Unit Footage	Square
1A	3	3	1,978	
1B	3	3	1,978	
2A	4	3	2,004	
2B	4	3	2,004	

The proposed buildings would be a maximum height of 34 feet and 10 inches, measured from finished grade to the top of the highest roof ridges. Conceptual elevations of the proposed residential structures are provided in Figures 3-2a-f, *Elevations*.

Recreation and Open Space

The Project would provide approximately 5,140 SF (128 SF per unit) of private open space and approximately 10,965 SF (274 SF per unit) of common recreational space. Recreational amenities would include a Pocket Park (7,653 SF) with a dining area, BBQ grills, a fireplace, seating, and trash receptacles.

Fences and Walls

The Project includes construction of a new 6-foot-high concrete masonry unit (CMU) block wall and 1-foot to 5-foot retaining wall along the southern property line between the existing residential development and the proposed Project. The east side of the Project site would include a 6-foot-high CMU block wall and 1-foot to 4-foot retaining wall.

Lighting

Proposed outdoor lighting would be typical of residential uses and would consist of wall-mounted lighting, pole-mounted lights along the driveway, path lights/bollards, and landscape lighting. All of the Project's outdoor lighting would be shielded to minimize off-site spill and would be in compliance with Tustin Municipal Code Section 9271. Conceptual lighting is provided in Figure 3-3, *Site Lighting*.

Access and Circulation

The Project would include one 27-foot-wide driveway on Irvine Boulevard. The driveway would connect to a 24-foot-wide drive isle that loops around the interior of the Project site. Onsite drive isles would provide direct access to garages and on-site parking. Pedestrian sidewalks and pathways would be installed to circulate the site and connect to the proposed Pocket Park located within the center of the site.

Parking

The Project would include two covered parking stalls per unit (80 total) and 11 uncovered parking spaces. Table 3-2 provides a breakdown of required and proposed parking for the site.

Table 3-2: Parking Summary

	Required (Tustin Municipal Code Section 9263)	Provided
Multi-family housing	80 covered + 10 unassigned guest spaces (90 total) (2 covered spaces for each dwelling unit, plus 1 unassigned guest space for every 4 units)	91
Total	90	91

Landscaping

The Project would install new drought tolerant low water use ornamental landscaping throughout the site, which would include 24-inch, 36-inch, and 48-inch box trees, such as *Olea Swan Hill* (Swan Hill Olive), *Arbutus Marina* (Strawberry tree), *Eriobotrya deflexa* (Bronze loquat), *Laurus nobilis* (Bay tree), *Lagetroemia indica* (Crape Myrtle), *Cercis canadensis* (Eastern red bud), and *Tristania conferta* (Brisbane box). In addition, a variety of ornamental shrubs, vines, and groundcovers would be installed. Figure 3-4, *Conceptual Landscape Plan* shows that trees would be installed adjacent to the proposed

walls along the site boundary and along a landscape setback along Irvine Boulevard. The landscaping irrigation would be installed pursuant to CalGreen water regulations (AB 1881).

Infrastructure Improvements

The proposed development would construct an onsite driveway and storm drain improvements that would connect to the existing utility infrastructure in the Irvine Boulevard right-of-way. Additionally, the Project proposes an easement for emergency ingress and egress and public service vehicles and an easement for public utility access. The easements are proposed throughout the 24-foot internal drive isle.

Electric: Existing overhead power poles and lines are located along the southern border of the Project site. Existing infrastructure would be protected in place during Project construction and remain following completion of the Project.

Water: The Project would install 8-inch water lines to connect to the existing 8-inch water line in Irvine Boulevard.

Sewer: The Project would install an onsite sewer system that would connect to the existing 8-inch sewer line adjacent to the southern property line.

Stormwater Drainage: The proposed drainage patterns of the Project site would follow similar drainage patterns as the existing site. Surface flows would split between two drainage areas, collecting in into onsite curb and gutters and proposed catch basins in the northwest and southwest corners. All flows would be conveyed to an infiltration detention pipe on the west side of the Project site beneath proposed internal drive aisle where stormwater would be stored until it can percolate into the ground. To relieve overflow resulting from severe storm events, two emergency overflow locations are proposed. One is a culvert on Irvine Boulevard to the north and the other is a grate inlet of the existing parking lot gutter in 17772 Irvine Boulevard.

Solar Panels: Consistent with the 2019 CA Building Energy Efficiency Standards (Title 24 Part 6), the Project would include photovoltaic (PV) solar panels on the rooftops of each residence.

CONSTRUCTION

Construction activities for the Project would occur over approximately 11 months and in the following stages: (1) demolition of existing buildings; (2) site preparation; (3) grading and excavation; (4) building construction (which would include a six phase construction approach beginning construction of several residences in the northwest subarea and then constructing each of the five other subareas in a counter clockwise direction); (5) paving; and (6) architectural coatings. Table 1 details total working days for each phase of construction for analytical purposes. Construction activities would be limited to the hours between 7:00 a.m. and 6:00 p.m. Monday through Friday, 9:00 a.m. and 5:00 p.m. on Saturdays, and prohibited on Sundays and holidays pursuant to the City's Municipal Code Chapter 4616.

Construction activities would include overexcavation of soils to a depth of approximately five feet below existing or lowest cut grade. Soils would be reused throughout the site.

Project construction would require a maximum import of approximately 3,748 cubic yards of soil.

Table 3-3. Construction Schedule

Activity	Duration (Total Days)
Demolition	20
Stie Preparation	7
Grading	14
Building Construction	220
Paving	10
Architectural Coating	10
Total	281

GENERAL PLAN AND ZONING

The Project would require a General Plan Amendment to change the existing land use designation from PO to High Density Residential (HDR). The HDR designation is intended for development of a wide range of living accommodations, including single family units and multiple family dwellings such as, apartments, condominiums, townhomes, cooperatives, and community apartments. The HDR designation is envisioned to accommodate 15-25 dwelling units per net acre with an average of 2.15 persons per dwelling unit. The Project would require a zone change from Retail Commercial (C1) with a Parking (P) overlay to Multiple Family Residential (R-3). The proposed R-3 zoning would allow for multiple family dwellings with a minimum lot area of 1,750 SF per dwelling unit and a maximum lot development of 65 percent.

DISCRETIONARY ACTION REQUESTED

The City of Tustin is expected to use the information contained in this Initial Study for consideration of approvals related to and involved in the implementation of this Project. These include, but may not be limited to, the permits and approvals described below.

As part of the proposed project, the following discretionary actions are required:

- Adoption of this Initial Study/Mitigated Negative Declaration
- General Plan Amendment (GPA)
- Zone Change
- Subdivision/Tentative Tract Map (TTM) Approval
- Design Review
- Development Agreement
- Density Bonus Request

Conceptual Site Plan



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Plan 1A Elevations



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Plan 1B Elevations



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Plan 2A Elevations



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Plan 2B Elevations



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Plan 1A Duplex Elevations



17802 Irvine Boulevard
City of Tustin

Figure 3-2e

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Plan 1B Duplex Elevations



17802 Irvine Boulevard
City of Tustin

Figure 3-2f

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[illegible]

AREA	AVG	MAX	MIN	MAX/AVG	AVG/MIN
VEHICULAR MAIN ENTRY DRIVE	4.74 m	9.08 m	1.97 m	6.11	3.01
VEHICULAR PARKING EAST	3.72 m	10.26 m	1.10 m	9.11	2.81
VEHICULAR PARKING WEST	4.25 m	10.45 m	1.45 m	7.21	3.61
PEDESTRIAN MAIN ENTRY DRIVE COURTYARD	3.65 m	6.26 m	0.72 m	8.71	5.11
PEDESTRIAN MAIN ENTRY DRIVE	2.22 m	5.62 m	0.25 m	22.51	6.61
PEDESTRIAN MAIN COURTYARD PASSAGE	2.25 m	5.62 m	0.61 m	9.51	3.61
PEDESTRIAN MAIN EAST	2.26 m	6.61 m	0.34 m	19.51	7.01
PEDESTRIAN MAIN WEST	1.69 m	4.71 m	0.26 m	18.61	7.21
PEDESTRIAN MAIN SOUTH	0.1 m	0.7 m	0.0 m	N/A	N/A
PROPERTY LINE EAST	0.0 m	0.0 m	0.0 m	N/A	N/A
PROPERTY LINE WEST (GAZETTED CORRIDOR)	0.2 m	0.8 m	0.0 m	N/A	N/A

Figure 3-3

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Conceptual Landscape Plan

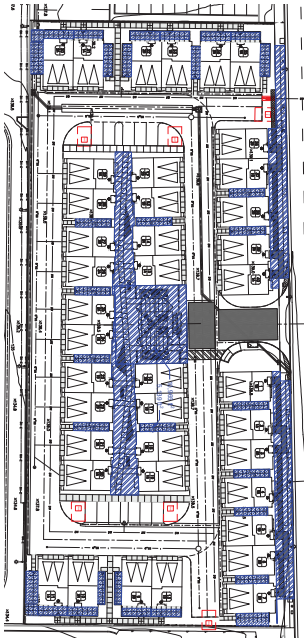


Landscape Key

- 1 COMMUNITY ENTRY
42'-HT COURTYARD WALLS: STUCCO
FINISH TO MATCH ARCHITECTURE
• 42'-HT STUCCO WALLS WITH CONCRETE
PAVING
- 2 POCKET PARK
• SEATING AREA
• SHEDDED TREE
• BIRD
• ENHANCED PAVING
- 3 PASSEO
- 4 STREETSCAPE LANDSCAPE VIA
PLANTING AND PAVING
- 5

Tree Palette

SYMBOL	NAME	SIZE
	OLEA SWAN HILL SWAN HILL OLIVE	40" BOX
	ARJUNUS MARGNA MARGNA ARJUNUS	36" BOX
	ERIODONTA DEFLEXA DEFLEXA ERIODONTA	36" BOX
	LAURUS NOBILIS NOBILIS LAURUS	36" BOX
	LAGESTROBOMA NODICA NODICA LAGESTROBOMA	36" BOX
	CLAYE WYTTIE WYTTIE CLAYE	36" BOX
	XXX	36" BOX
	TRISTANIA CONSERVA CONSERVA TRISTANIA	24" BOX



Common Open Space Table

Common Open Space	= 7,653 ft ²
Pocket Park	= 3,312 ft ²
Total	= 10,965 ft ²
34 units x 300 ft ²	= 10,200 ft ² required

Private Open Space Table

Courtyards & Sideways	= 5,140 ft ² provided
100 ft ² x 34 units	= 5,100 ft ² required

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4. ENVIRONMENTAL CHECKLIST

BACKGROUND

<p>Project Title:</p> <p>17802 Irvine Boulevard Residential Project</p>
<p>Lead Agency:</p> <p>City of Tustin</p> <p>300 Centennial Way</p> <p>Tustin, CA 92780</p>
<p>Lead Agency Contact:</p> <p>Leila Carver, Senior Planner Consultant</p> <p>Email: lcarver@tustinca.org</p> <p>Phone: (714) 573-3126</p>
<p>Project Location:</p> <p>17802 and 17842 Irvine Boulevard, Tustin, California</p>
<p>Project Sponsor Contact:</p> <p>Intracorp Socal-1, LLC; Emilie Simard</p> <p>(949) 724-5923</p>
<p>General Plan and Zoning Designation: Land use – Professional Office (PO) and zoning – Retail Commercial (C1) with a Parking Overlay (P). The Project proposes to change existing land use designation from PO to High Density Residential (HDR) and the existing zoning from C1/P to Multiple Family Residential (R-3).</p>
<p>Project Description: The Project proposes to demolish the two existing office buildings (totaling approximately 44,948 SF) and redevelop the 2.07-acre site with a Multifamily housing development consisting of 18 duplexes and four single-family residences (40 units total). Additionally, the proposed Project would include landscaping, parking, and utility/stormwater improvements.</p>
<p>Surrounding Land Uses and Setting: Land uses to the north of the Project site include Columbus Tustin Park and Columbus Tustin Middle School. Land uses to the south and east include residences. Land uses to the west include office uses.</p>
<p>Other Public Agencies Whose Approval is Required: None.</p>

ENVIRONMENTAL FACTORS POTENTIALLY AFFECTED

The subject areas checked below were determined have a less than significant effect with mitigation incorporated, as indicated by the checklist and discussion on the following pages.

<input type="checkbox"/>	Aesthetics	<input type="checkbox"/>	Agriculture & Forest Resources	<input type="checkbox"/>	Air Quality
<input checked="" type="checkbox"/>	Biological Resources	<input checked="" type="checkbox"/>	Cultural Resources	<input type="checkbox"/>	Energy
<input checked="" type="checkbox"/>	Geology /Soils	<input type="checkbox"/>	Greenhouse Gas Emissions	<input type="checkbox"/>	Hazards & Hazardous Materials
<input type="checkbox"/>	Hydrology / Water Quality	<input type="checkbox"/>	Land Use / Planning	<input type="checkbox"/>	Mineral Resources
<input type="checkbox"/>	Noise	<input type="checkbox"/>	Population / Housing	<input type="checkbox"/>	Public Services
<input type="checkbox"/>	Recreation	<input type="checkbox"/>	Transportation	<input checked="" type="checkbox"/>	Tribal Cultural Resources
<input type="checkbox"/>	Utilities / Service Systems	<input type="checkbox"/>	Wildfire	<input type="checkbox"/>	Mandatory Findings of Significances

DETERMINATION

On the basis of this initial evaluation

- ☐ I find that the proposed project COULD NOT have a significant effect on the environment, and a NEGATIVE DECLARATION will be prepared.
- ☒ I find that although the proposed project could have a significant effect on the environment, there will not be a significant effect in this case because revisions in the project have been made by or agreed to by the project proponent. A MITIGATED NEGATIVE DECLARATION will be prepared.
- ☐ I find that the proposed project MAY have a significant effect on the environment, and an ENVIRONMENTAL IMPACT REPORT is required.

- ☐ I find that the proposed project MAY have a “potentially significant” or “potentially significant unless mitigated” impact on the environment, but at least one effect 1) has been adequately analyzed in an earlier analysis 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.

Signature

Date

Name and Title

Lead Agency

EVALUATION OF ENVIRONMENTAL IMPACTS

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).

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

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.

“Negative Declaration: Potentially Significant Unless Mitigation Incorporated” applies where the incorporation of mitigation measures has reduced an effect from “Potentially Significant Impact” to a “Less Significant Impact.” The lead agency must describe the mitigation measures, and briefly explain how they reduce the effect to a less than significant level.

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.

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

This is only a suggested form, and lead agencies are free to use different formats; however, lead agencies should normally address the questions from this checklist that are relevant to a project's environmental effects in whatever format is selected.

The analysis of each issue should identify: (a) the significance criteria or threshold used to evaluate each question; and (b) the mitigation measure identified, if any, to reduce the impact to less than significance.

5. ENVIRONMENTAL ANALYSIS

This section provides evidence to substantiate the conclusions in the environmental checklist.

5.1. AESTHETICS

Would the Project:	Potential ly Significa nt Impact	Less Than Significant with Mitigation Incorporate d	Less Than Significa nt Impact	No Impact
a) Have a substantial adverse effect on a scenic vista?	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>
b) Substantially damage scenic resources, including, but not limited to, trees, rock outcroppings, and historic buildings within a state scenic highway?	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>
c) In nonurbanized 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?	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>
d) Create a new source of substantial light or glare which would adversely affect day or nighttime views in the area?	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>	<input type="checkbox"/>

a. Have a substantial adverse effect on a scenic vista?

No Impact. Scenic vistas consist of expansive, panoramic views of important, unique, or highly valued visual features that are seen from public viewing areas. This definition combines visual quality with information about view exposure to describe the level of interest or concern that viewers may have for the quality of a particular view or visual setting. A scenic vista can be impacted in two ways: a development project can have visual impacts by either directly diminishing the scenic quality of the vista or by blocking the view corridors or “vista” of the scenic resource. Important factors in determining whether a proposed project would block scenic vistas include the project’s proposed height, mass, and location relative to surrounding land uses and travel corridors.

Figure COSR-4 of the General Plan Conservation/Open Space/Recreation Element conceptually identifies public scenic resources in Tustin. Scenic resources in the city

include public views along ridgelines, views toward inland mountains, and views along scenic transportation corridors.

The Project site is in an urbanized area and surrounded by one- and two-story development (residential and commercial land uses), roadways, lined with ornamental landscaping and power lines. The topography of the site and surrounding area is flat, and there are no scenic vistas or unique topographic features that are visible from Irvine Boulevard or from views across the Project site. Thus, redevelopment of the Project site with two-story residences would not obstruct, interrupt, or diminish a scenic vista; and impacts would not occur.

b. Substantially damage scenic resources, including, but not limited to, trees, rock outcroppings, and historic buildings within a state scenic highway?

No Impact. There are no officially designated State scenic highways within the city. The closest Eligible State Scenic Highway according to the California Department of Transportation (Caltrans) is a portion of SR-91, located approximately seven miles north of the city. Tustin is not visible from the highway. Therefore, the Project would result in no impacts on a scenic resource within a state scenic highway.

c. In nonurbanized 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?

Less Than Significant Impact. As described previously, the Project site is located within an urbanized area that is directly adjacent to Irvine Boulevard, a park, residential uses, and office uses. The Project site is developed with 2 two-story office buildings, a parking lot, and landscaping. The existing character of the site and surrounding area is neither unique nor of special aesthetic value or quality.

The Project would redevelop the site to provide 18 duplexes and 4 single-family residences (40 units total) with landscaping and parking improvements which would be consistent with the residential uses that are adjacent to the site to the east and south.

General Plan. As shown on General Plan Figure LU-1, Land Use Plan Policy Map, the Project site currently has a General Plan land use designation of Professional Office (PO). The Project would include a General Plan Amendment to change the land use designation from PO to High Density Residential (HDR). The HDR designation provides for residential uses at a density of between 15 and 25 dwelling units per net acre. The proposed Project would result in a density of 19.3 dwelling units per acre, which would not exceed the allowable density for the proposed land use designation.

Zoning. The Project site is currently zoned Retail Commercial (C-1), which has a minimum lot size requirement of 5,000 square feet, no maximum lot coverage requirement, and a maximum building height of 35 feet. Municipal Code Section 9232 describes that the C-1 zone provides for a variety of general retail, service retail and office uses.

The Project would include a zone change to Multiple-Family Residential (R-3). The R-3 zone allows a maximum building height of 35, a maximum lot coverage of 65 percent,

and requires a 10-foot front setback, 5-foot interior side yard setback, 10-foot corner yard side setback, and 10-foot rear yard setback.

As shown in Table 5-1, the proposed Project meets or exceeds the R-3 zoning requirements for lot area, building heights, and setbacks.

Table 5-1. Development Standard Consistency

Development Feature	R-3 Zoning Requirement	Proposed Project Consistency
Minimum Lot Area	7,000 SF	Consistent. The proposed Project site is approximately 90,212 SF (2.07 acres).
Minimum Lot Width	70 feet	Consistent. The proposed Project site is 190 feet wide.
Lot Coverage	65 percent	Consistent. The proposed Project would result in 36.7 percent building coverage.
Building Height	35 feet	Consistent. The proposed residential buildings would be 34 feet and 10 inches in height from the finished grade to the top of the highest architecture which meets the R-3 zone requirement of a 35-foot-high building.
Front Yard	10 feet from right-of-way line	Consistent. The Project includes 6-foot minimum front yard setback, which is less than the R-3 zoning requirement of 10-foot front yard setbacks from right-of-way line of Irvine Blvd. The Project includes affordable housing units which would qualify the Project for the City's density bonus. A concession of the City's density bonus program is to allow for the flexibility of reduced setbacks, which would be applied along Irvine Blvd.
Interior Side Yard	5 feet	Consistent. The Project includes 5-foot minimum interior side setbacks, which is consistent with the R-3 zoning

		requirement of 5-foot interior side yard setbacks.
Corner Side Yard	10 feet	Consistent. The Project includes 10-foot minimum corner setbacks, which is consistent with the R-3 zoning requirement of 10-foot corner yard setbacks.
Rear Yard	10 feet	Consistent. The Project includes 10-foot minimum rear setbacks, which exceeds the R-3 zoning requirement of 10-foot rear yard setbacks.

As shown above, the Project would be consistent with the design requirements under the City's R-3 zoning. The proposed high-density residential Project would replace the existing business center and would include the construction of townhomes and single-family residences, landscaping, internal drive aisles, and recreational features. The Project would result in a similar or improved visual character and quality of the Project site. Therefore, the Project would result in a less than significant impact.

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

Less Than Significant Impact. The Project site is developed with two existing office buildings and contains onsite nighttime security lighting. In addition, the Project site is located within a developed urban area, adjacent to a park, office uses, residential development, and a roadway. Existing sources of light in the vicinity of the Project site includes: streetlights, security lighting, landscape lighting, and lighting from building interiors that pass-through windows.

The proposed Project would include the provision of street lighting and nighttime lighting for security purposes around all of the residences. Implementation of the proposed Project would result in a higher intensity development on the Project site than currently exists, which would contribute additional sources to the overall ambient nighttime lighting conditions. The Tustin Building Code (2019) requires submittal of point-by-point photometric calculations with building plans showing compliance with Municipal Code Section 8102. Additionally, all outdoor lighting would be hooded, appropriately angled away from adjacent land uses, and would be in compliance with the Tustin Municipal Code Section 9271 that provides specifications for shielding lighting away from adjacent uses and intensity of lighting. Because the Project site is within an urban area with various sources of existing nighttime lighting, and the Project would be required to comply with the City's lighting regulations that would be verified by the City's Building Division during the permitting process, the lighting increase in light that would be generated by the Project would not adversely affect day or nighttime views in the area. Overall, lighting impacts would be less than significant.

Reflective light (glare) can be caused by sunlight or artificial light reflecting from finished surfaces such as window glass or other reflective materials. Generally, darker or mirrored glass would have a higher visible light reflectance than clear glass. Buildings constructed of highly reflective materials from which the sun reflects at a low angle can cause adverse glare. The proposed Project would not use highly reflective surfaces, or glass sided buildings. Although the residences would contain windows, the windows would be separated by stucco and architectural elements, which would limit the potential of glare. In addition, as described previously, onsite lighting would be angled down and shielded, which would avoid the potential on onsite lighting to generate glare. Therefore, the Project would not generate substantial sources of glare, and impacts would be less than significant.

Existing Plans, Programs, or Policies

PPP AES-1: Lighting. Prior to issuance of building permits, the applicant shall submit a photometric lighting plan to the Building Division showing compliance with Municipal Code Section 8102, which requires a minimum of one-foot candle of light on the private drives and parking surfaces and a minimum of one-quarter foot-candle of light on the walking surfaces. The photometric plan must also show no light spillage pursuant to Municipal Code Section 9271(hh).

Mitigation Measures

None.

Sources

California State Scenic Highway System Map. Accessed from:
<https://www.arcgis.com/apps/webappviewer/index.html?id=2e921695c43643b1aaf7000dfcc19983>

City of Tustin, 2018. City of Tustin General Plan Conservation, Open Space, and Recreation Element . Accessed:
<https://www.tustinca.org/DocumentCenter/View/713/City-of-Tustin-General-Plan-PDF>

5.2.AGRICULTURE AND FOREST RESOURCES

In determining whether impacts to agricultural resources are significant environmental effects, lead agencies may refer to the California Agricultural Land Evaluation and Site Assessment Model (1997) prepared by the California 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 the forest carbon measurement methodology provided in Forest Protocols adopted by the California Air Resources Board. Would the Project:

Potential y Significan t Impact	Less Than Significant with Mitigation Incorporat ed	Less Than Significan t Impact	No Impact
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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?

<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>
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b) Conflict with existing zoning for agricultural use, or a Williamson Act contract?

<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>
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c) Conflict with existing zoning for, or cause rezoning of, forest land (as defined in Public Resources Code section 12220(g)), timberland (as defined by Public Resources Code section 4526), or timberland zoned Timberland Production (as defined by Government Code section 51104(g))?

<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>
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d) Result in the loss of forest land or conversion of forest land to non-forest use?

<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>
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e) Involve other changes in the existing environment which, due to their location or nature, could result in conversion of Farmland, to non-agricultural use or conversion of forest land to non-forest use? ☐ ☐ ☐ ☒

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

No Impact. The California Department of Conservation Important Farmland mapping identifies the Project site and surrounding areas as Urban and Built-Up land (CDC 2020). No areas of Prime Farmland, Unique Farmland, or Farmland of Statewide Importance is located on or adjacent to the Project site. Therefore, impacts related to Prime Farmland, Unique Farmland, or Farmland of Statewide Importance would not occur.

b. Conflict with existing zoning for agricultural use, or a Williamson Act contract?

No Impact. The Williamson Act (California Land Conservation Act of 1965) restricts the use of agricultural and open space lands to farming and ranching by enabling local governments to contract with private landowners for indefinite terms in exchange for reduced property tax assessments.

Tustin does not include any land that is currently under an active Williamson Act contract. Therefore, development of the Project would not result in the cancellation of the contract, and impacts related to a Williamson Act contract would not occur. Therefore, the Project would result in no impact.

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

No Impact. “Forest land” is defined as “land that can support 10 percent native tree cover of any species, including hardwoods, under natural conditions, and that allows for management of one or more forest resources, including timber, aesthetics, fish and wildlife, biodiversity, water quality, recreation, and other public benefits”.¹ “Timberland” is defined as “land, other than land owned by the federal government and land designated by the board as experimental forest land, which is available for, and capable of, growing a crop of trees of a commercial species used to produce lumber and other forest products including Christmas trees”.² “Timberland Production Zone” (TPZ) is defined as “an area

¹ California Public Resources Code Section 12220(g).

² California Public Resources Code Section 4526.

which has been zoned pursuant to Section 51112 or 51113 and is devoted to and used for growing and harvesting timber, or for growing and harvesting timber and compatible uses, as defined in subdivision (h)".³

The Project site current includes two office buildings and parking lot and within an urbanized developed area. No forest land exists on or adjacent to the Project site. The Project site is currently zoned Retail Commercial (C1) and is not zoned for forest land or timberland uses. Thus, the proposed Project would not result in impacts related to a conflict with existing forest land or timberland zoning, and impacts would not occur.

d. Result in the loss of forest land or conversion of forest land to non-forest use?

No Impact. As discussed above, the Project does not propose development within an area containing forest land. Therefore, the proposed Project would not result in the loss or conversion of forest land to non-forest use.

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

No Impact. As described above, the Project site currently includes two office buildings and parking lot and is within an urbanized developed area. No forest land exists on or adjacent to the Project site. Therefore, the implementation of the proposed Project would not involve other changes in the existing environment which would result in the conversion of farmland to a non-agricultural use or the conversion of forest land to a non-forest use. Therefore, no impacts would occur.

Existing Plans, Programs, or Policies

None.

Mitigation Measures

None.

Sources

California Important Farmland Finder. California Department of Conservation. Accessed from: <https://maps.conservation.ca.gov/DLRP/CIFF/>

³ California Government Code Section 51104(g).

5.3. AIR QUALITY

Where available, the significance criteria established by the applicable air quality management or air pollution control district may be relied upon to make the following determinations. Would the Project:	Potential ly Significa nt Impact	Less Than Significant with Mitigation Incorporate d	Less Than Significa nt Impact	No Impact
a) Conflict with or obstruct implementation of the applicable air quality plan?	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>	<input type="checkbox"/>
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?	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>	<input type="checkbox"/>
c) Expose sensitive receptors to substantial pollutant concentrations?	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>	<input type="checkbox"/>
d) Result in other emissions (such as those leading to odors) adversely affecting a substantial number of people?	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>	<input type="checkbox"/>

a. Conflict with or obstruct implementation of the applicable air quality plan?

Less than Significant Impact. The Project site is located in the South Coast Air Basin, which is under the jurisdictional boundaries of the South Coast Air Quality Management District (SCAQMD). The SCAQMD and Southern California Association of Governments (SCAG) are responsible for preparing the Air Quality Management Plan (AQMP), which addresses federal and state Clean Air Act (CAA) requirements. The 2016 AQMP details goals, policies, and programs for improving air quality in the Basin.

As described in Chapter 12, Section 12.2 and Section 12.3 of the SCAQMD's CEQA Air Quality Handbook (1993), for purposes of analyzing consistency with the AQMP, if a proposed project would result in growth that is substantially greater than what was anticipated, then the proposed project would conflict with the AQMP. On the other hand, if a project's density is within the anticipated growth of a jurisdiction, its emissions would be consistent with the assumptions in the AQMP, and the project would not conflict with SCAQMD's attainment plans. In addition, the SCAQMD considers projects consistent with the AQMP if the project would not result in an increase in the frequency or severity of existing air quality violations or cause a new violation.

The site is a previously developed site that is located along an arterial roadway that is adjacent to residential, office, park and school land uses. The proposed Project would remove the existing office buildings and develop 40 residential units on the site. As further

described in Section 5.14, *Population and Housing*, the 40 new residences would result in a 0.1 percent increase in residential units within the city. This limited level of growth would not exceed growth projections and would be consistent with the assumptions in the 2016 AQMP.

Also, emissions generated by construction and operation of the proposed Project would not exceed thresholds. As described in the analysis below and detailed in Appendix A, the Project would not result in an increase in the frequency or severity of existing air quality violations or cause a new violation. Therefore, impacts related to conflict with the 2016 AQMP from the proposed Project would be less than significant.

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 (including releasing emissions which exceed quantitative thresholds for ozone precursors)?

Less than Significant Impact. The South Coast Air Basin (SCAB) is in a non-attainment status for federal ozone standards, federal carbon monoxide standards, and state and federal particulate matter standards. Any development in the SCAB, including the proposed Project, could cumulatively contribute to these pollutant violations. The methodologies from the SCAQMD CEQA Air Quality Handbook are used in evaluating Project impacts. SCAQMD has established daily mass thresholds for regional pollutant emissions, which are shown in Table 5-2. Should construction or operation of the proposed Project exceed these thresholds a significant impact could occur; however, if estimated emissions are less than the thresholds, impacts would be considered less than significant.

Table 5-2: SCAQMD Regional Daily Emissions Thresholds

Pollutant	Construction (lbs/day)	Operations (lbs/day)
NOx	100	55
VOC	75	55
PM10	150	150
PM2.5	55	55
SOx	150	150
CO	550	550
Lead	3	3

Source: Regional Thresholds presented in this table are based on the SCAQMD Air Quality Significance Thresholds, March 2015

Construction

Construction activities associated with the proposed Project would generate pollutant emissions from the following construction activities: demolition, site preparation, grading, building construction, paving, architectural coating. The amount of emissions generated on a daily basis would vary, depending on the intensity and types of construction activities occurring. Construction activities would generate emissions from the demolition of the two existing buildings totaling 47,583 SF, onsite pavement, and infrastructure. In addition, the Project would generate a need for construction worker vehicle trips to and from the Project site during the estimated 11 months of construction.

It is mandatory for all construction projects to comply with several SCAQMD Rules, including Rule 403 for controlling fugitive dust, PM₁₀, and PM_{2.5} emissions from construction activities. Rule 403 requirements include, but are not limited to, applying water in sufficient quantities to prevent the generation of visible dust plumes, applying soil binders to uncovered areas, reestablishing ground cover as quickly as possible, utilizing a wheel washing system to remove bulk material from tires and vehicle undercarriages before vehicles exit the proposed Project site, covering all trucks hauling soil with a fabric cover and maintaining a freeboard height of 12-inches, and maintaining effective cover over exposed areas. Compliance with Rule 403 was accounted for in the construction emissions modeling and is included as PPP AQ-2.

In addition, implementation of SCAQMD Rule 1113 that governs the VOC content in architectural coating, paint, thinners, and solvents, would be required and is included as PPP AQ-3. As shown in Table 5-3, CalEEMod results provide that construction emissions generated by the proposed Project would not exceed SCAQMD regional thresholds. Therefore, construction activities would result in a less than significant impact.

Table 5-3: Regional Construction Emissions Summary

Construction Activity	Maximum Daily Regional Emissions (pounds/day)					
	ROG	NO _x	CO	SO _x	PM ₁₀	PM _{2.5}
2023						
Demolition	1.8	19.5	18.6	0.0	3.2	1.1
Site Prep	1.4	13.9	11.9	0.0	1.0	0.6
Grading	2.1	31.5	23.4	0.1	3.6	2.1
Building Construction	1.6	12.6	14.7	0.0	0.6	0.5
Maximum Daily Emissions	2.1	31.5	23.4	0.1	3.6	2.1

2024						
Paving	0.8	6.4	8.3	0.0	0.3	0.3
Architectural Coating	50.3	1.2	1.5	0.0	0.0	0.0
Maximum Daily Emissions	50.3	6.4	8.3	0.0	0.3	0.3
Maximum Daily Emission 2023-2024	50.3	31.5	23.4	0.1	3.6	2.1
SCAQMD Significance Thresholds	75	100	550	150	150	55
Threshold Exceeded?	No	No	No	No	No	No

Source: Air Quality, Greenhouse Gas, and Energy Impact Analysis (Appendix A)

Note: Modeling assumed a conservative estimate of 16,706 cubic yards of exported fill

Operation

Development of the 40 residential units would result in long-term regional emissions of criteria air pollutants and ozone precursors associated with area sources, such as natural gas consumption, landscaping, applications of architectural coatings, and consumer products. However, operational vehicular emissions would generate a majority of the emissions generated from the Project.

Operational emissions associated with the proposed Project were modeled using CalEEMod and are presented in Table 5-4. As shown, the proposed Project would result in long-term regional emissions of the criteria pollutants that would be below the SCAQMD's applicable thresholds. Therefore, the Project's operational emissions would not exceed the NAAQS and CAAQS, would not result in a cumulatively considerable net increase of any criteria pollutant impacts, and would be less than significant.

Table 5-4: Summary of Net Regional Operational Emissions

Operational Activity	Maximum Daily Regional Emissions (pounds/day)					
	ROG	NO _x	CO	SO _x	PM ₁₀	PM _{2.5}
Area	2.1	0.7	2.5	0.0	0.1	0.1
Energy	0.0	0.3	0.1	0.0	0.0	0.0

Mobile	1.2	1.1	11.2	0.0	1.0	0.2
Total Project Operational Emissions	3.3	2.0	13.8	0.0	1.1	0.3
Existing Total Emissions	3.3	1.9	17.8	0.0	1.4	0.3
Net Total Operational Emissions	0.0	0.2	-4.0	0.0	-0.3	0.0
SCAQMD Significance Thresholds	55	55	550	150	150	55
Threshold Exceeded?	No	No	No	No	No	No

Source: Air Quality, Greenhouse Gas, and Energy Impact Analysis (Appendix A)

c. Expose sensitive receptors to substantial pollutant concentrations?

Less than Significant Impact. The SCAQMD recommends the evaluation of localized NO₂, CO, PM₁₀, and PM_{2.5} construction-related impacts to sensitive receptors in the immediate vicinity of the Project site. Such an evaluation is referred to as a localized significance threshold (LST) analysis.

The impacts were analyzed pursuant to the SCAQMD's Final Localized Significance Threshold Methodology. According to the LST Methodology, "off-site mobile emissions from the Project should not be included in the emissions compared to the LSTs" (SCAQMD 2008). SCAQMD has developed LSTs that represent the maximum emissions from a Project that are not expected to cause or contribute to an exceedance of the most stringent applicable federal or state ambient air quality standards, and thus would not cause or contribute to localized air quality impacts. LSTs are developed based on the ambient concentrations of NO_x, CO, PM₁₀, and PM_{2.5} pollutants for each of the 38 source receptor areas (SRAs) in the SCAB. The Project site is located in SRA 17, Central Orange County.

Sensitive receptors can include uses such as long-term health care facilities, rehabilitation centers, and retirement homes. Residences, schools, playgrounds, childcare centers, and athletic facilities can also be considered sensitive receptors. The nearest LST sensitive receptors to the Project site are the existing residences that are adjacent to the east, south and west of the site, with the nearest approximately 10 meters (32 feet) northwest of the Project boundary, Columbus Tustin Park is located approximately 108 feet north of the Project boundary, and Columbus Tustin Middle School is approximately 544 feet north of the Project boundary.

Construction

The localized thresholds from the mass rate look-up tables in SCAQMD's Final Localized Significance Threshold Methodology document were developed for use on projects that are less than or equal to 5-acres in size or have a disturbance of less than or equal to 5 acres daily and were used to evaluate LSTs. Localized construction emissions associated with the proposed Project were modeled using CalEEMod and are presented in Table 5-5.

Distance to the nearest sensitive receptor determines the local emission thresholds. The nearest LST sensitive receptors to the Project site are the existing residences that are adjacent to the east, south and west of the site, with the nearest approximately 10 meters (32.81 feet) northwest of the Project boundary. These receptors (distance from the project property line to the residential structure) are less than the minimum distance provided in the lookup tables (25 meters); therefore, 25 meters (82 feet) was used. The Project would comply with SCAQMD Rules 403 and 1113 (included as PPP AQ-2 and PPP AQ-3), which would require implementation of erosion avoidance and minimization through dust control activities (watering, limiting construction during high-wind events, reducing disturbances, etc.) and use of paints that minimize potential harmful emissions. As shown in Table 5-5, maximum daily construction emissions from the proposed Project would not exceed the applicable SCAQMD LST thresholds.

Table 5-5: Localized Significance Summary of Construction

Construction Activity	Maximum Daily Regional Emissions (pounds/day)			
	NO _x	CO	PM ₁₀	PM _{2.5}
2022				
Demolition	17.0	16.9	3.0	1.0
Site Prep	13.9	11.9	1.0	0.6
Grading	17.8	16.8	2.7	1.7
Building Construction	12.3	12.8	0.5	0.5
Maximum Daily Emissions	17.8	16.9	3.0	1.7
2023				
Paving	6.4	8.3	0.3	0.3
Architectural Coating	1.2	1.5	0.0	0.0
Maximum Daily Emissions	6.4	8.3	0.3	0.3

Maximum Daily Emission 2021-2022	17.8	16.9	3.0	1.7
SCAQMD Significance Thresholds	115	715	6	4
Threshold Exceeded?	No	No	No	No

Source: Air Quality, Greenhouse Gas, and Energy Impact Analysis (Appendix A)

Operation

According to the SCAQMD LST methodology, LSTs apply to stationary mobile sources. Projects that involve mobile sources that spend long periods queuing and idling at a site, such as transfer facilities or warehousing and distribution buildings, have the potential to exceed the operational localized significance thresholds. The proposed Project would operate 40 residential units, which do not involve vehicles idling or queueing for long periods. Therefore, due to the lack of significant stationary source emissions, impacts related to operational localized significance thresholds would be less than significant (EPD 2022).

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

Less than Significant Impact. The proposed Project would not emit other emissions, such as those generating objectionable odors, that would affect a substantial number of people. The threshold for odor is identified by SCAQMD Rule 402, Nuisance, which states:

A person shall not discharge from any source whatsoever such quantities of air contaminants or other material which cause injury, detriment, nuisance, or annoyance to any considerable number of persons or to the public, or which endanger the comfort, repose, health, or safety of any such persons or the public, or which cause, or have a natural tendency to cause, injury or damage to business or property. The provisions of this rule shall not apply to odors emanating from agricultural operations necessary for the growing of crops or the raising of fowl or animals.

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

The proposed Project would implement residential development within the Project area that does not involve the types of uses that would emit objectionable odors affecting a substantial number of people. In addition, odors generated by non-residential land uses are required to be in compliance with SCAQMD Rule 402, which would prevent nuisance odors.

During construction, emissions from construction equipment, architectural coatings, and paving activities may generate odors. However, these odors would be temporary, intermittent in nature, and would not affect a substantial number of people. The noxious odors would be confined to the immediate vicinity of the construction equipment. Also, the short-term construction-related odors would cease upon the drying or hardening of the odor-producing materials. Therefore, impacts associated with other emissions, such as odors, would not adversely affect a substantial number of people.

Existing Plans, Programs, or Policies

PPP AQ-1: Rule 402. Project construction plans and specifications shall state that the Project is required to comply with the provisions of South Coast Air Quality Management District (SCAQMD) Rule 402. The Project shall not discharge from any source whatsoever such quantities of air contaminants or other material which cause injury, detriment, nuisance, or annoyance to any considerable number of persons or to the public, or which endanger the comfort, repose, health or safety of any such persons or the public, or which cause, or have a natural tendency to cause, injury or damage to business or property.

PPP AQ-2: Rule 403. The construction plans and specifications shall state that the Project is required to comply with the provisions of South Coast Air Quality Management District (SCAQMD) Rule 403, which includes the following:

- All clearing, grading, earth-moving, or excavation activities shall cease when winds exceed 25 mph per SCAQMD guidelines in order to limit fugitive dust emissions.
- The contractor shall ensure that all disturbed unpaved roads and disturbed areas within the project are watered, with complete coverage of disturbed areas, at least 3 times daily during dry weather; preferably in the mid-morning, afternoon, and after work is done for the day.
- The contractor shall ensure that traffic speeds on unpaved roads and project site areas are reduced to 15 miles per hour or less.

PPP AQ-3: Rule 1113. The construction plans and specifications shall state that the Project is required to comply with the provisions of South Coast Air Quality Management District Rule (SCAQMD) Rule 1113. Only “Low-Volatile Organic Compounds” paints (no more than 50 gram/liter of VOC) and/or High Pressure Low Volume (HPLV) applications shall be used.

PPP E-2: Idling Regulations. The Project is required to comply with California Air Resources Board (CARB) Rule 2485 (13 CCR, Chapter 10 Section 2485), Airborne Toxic Control Measure to Limit Diesel-Fueled Commercial Motor Vehicle Idling.

Mitigation Measures

None.

Sources

Air Quality, Greenhouse Gas, and Energy Impact Analysis, Prepared by EPD Solutions, 2022 (Appendix A)

South Coast Air Quality Management District Final Localized Significance Threshold Methodology (SCAQMD 2008). Accessed: <http://www.aqmd.gov/docs/defaultsource/ceqa/handbook/localized-significance-thresholds/final-lst-methodology-document.pdf>

5.4. BIOLOGICAL RESOURCES

Would the Project:	Potential ly Significa nt Impact	Less Than Significant with Mitigation Incorporate d	Less Than Significa nt 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 Game or U.S. Fish and Wildlife Service?	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>
b) Have a substantial adverse effect on any riparian habitat or other sensitive natural community identified in local or regional plans, policies, regulations or by the California Department of Fish and Game or US Fish and Wildlife Service?	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>
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?	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>
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?	<input type="checkbox"/>	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
e) Conflict with any local policies or ordinances protecting biological resources, such as a tree preservation policy or ordinance?	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>

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

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

No Impact. The Project site is developed with two existing office buildings, a paved parking lot, and landscaping. The Project site is surrounded by urban developed areas with structures, paved parking, and ornamental landscaping. There is no evidence of either suitable habitat for or the presence of any endangered, rare, threatened, or special status plant species (or associated habitats) or wildlife species designated by the U.S. Fish and Wildlife Service (USFWS), California Department of Fish and Wildlife (CDFW), or California Native Plant Society (CNPS).

The Project would redevelop the site and provide new landscaping that would include a variety of ornamental trees, shrubs, and groundcover. As no sensitive species or habitat exist onsite, implementation of the Project would not result in an adverse effect, either directly or through habitat modifications, on any sensitive species, and impacts would not occur.

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

No Impact. Riparian habitats occur along the banks of rivers, streams, or wetland areas. Sensitive natural communities are natural communities that are considered rare in the region by regulatory agencies or are known to provide habitat for sensitive animal or plant species. As described in the previous response, the Project site is within an urban area, fully developed, and does not contain any natural habitats, including riparian habitat or sensitive natural community. Additionally, the Project site is bound by developed areas that include buildings, pavement, roadways, and small areas of ornamental landscaping that do not contain sensitive natural habitat areas. Thus, no impacts related to riparian habitat or other sensitive natural communities identified in local or regional plans would result from Project implementation.

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?

No Impact. Wetlands are defined under the federal Clean Water Act as land that is flooded or saturated by surface water or groundwater at a frequency and duration sufficient to support, and that normally does support, a prevalence of vegetation adapted to life in saturated soils. Wetlands include areas such as swamps, marshes, and bogs.

The Project site and adjacent areas are located within a developed urban area and do not contain natural wetlands. Therefore, the Project would not result in impacts to wetlands.

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?

Less than Significant with Mitigation Incorporated. Wildlife corridors are areas where wildlife movement is concentrated due to natural or anthropogenic constraints and corridors provide access to resources such as food, water, and shelter. Animals use these corridors to move between different habitats and provide avenues for wildlife dispersal, migration, and contact between other populations. The Project site does not support conditions for migratory wildlife corridors or linkages. The Project site is completely developed and surrounded by a roadway and developed land uses. The site and surrounding areas do not provide function for wildlife movement. Additionally, the surrounding area is developed and urban. There are no rivers, creeks, or open drainages near the site that could function as a wildlife corridor. Thus, implementation of the Project would not result in impacts related to wildlife movement or wildlife corridors.

However, the Project site contains existing ornamental trees that could be used for nesting by common bird species that are protected by the federal Migratory Bird Treaty Act (MBTA) and the California Fish and Game Code Sections 3503.5, 3511, and 3515 during the avian nesting and breeding season that occurs between February 1 and September 15. The provisions of the MBTA prohibits disturbing or destroying active nests. Therefore, Mitigation Measure BIO-1 has been included to require that if commencement of vegetation clearing occurs between February 1 and September 15, a qualified biologist shall conduct a nesting bird survey no more than 3 days prior to commencement of activities to confirm the absence of nesting birds. With implementation of Mitigation Measure BIO-1, potential impacts to nesting birds would be less than significant.

e. Conflict with any local policies or ordinances protecting biological resources, such as a tree preservation policy or ordinance?

Less than Significant Impact. The Project site is urban and developed and contains no biological resources to be preserved under the resource protection policies of the City's General Plan. Article 7, Chapter 3 of the Municipal Code addresses the protection of "trees, plants or shrubs in or growing upon or over any public parkway street, highway, alley, right-of-way, City-owned property in the City." The Project will not be impacting any such trees and shrubs. To the extent that the Project is required to plant new trees on public property pursuant to Section 7308 of Article 7, Chapter 3, the Project will be required to comply with the Municipal Code requirements as part of the City permitting process (PPP BIO-1). As a result, impacts would be less than significant.

f. Conflict with the provisions of an adopted Habitat Conservation Plan, Natural Community Conservation Plan, or other approved local, regional, or state habitat conservation plan?

No Impact. The Project site is developed and in an urban area. The Project site does not contain any natural lands that are subject to an adopted Habitat Conservation Plan,

Natural Community Conservation Plan, or other approved local, regional, or state habitat conservation plan. Therefore, the Project would not result in impacts to biological habitat plans.

Existing Plans, Programs, or Policies

PPP Bio-1: Street Trees. Installation of street trees shall occur in compliance with the City of Tustin Municipal Code Article 7, Chapter 3, Section 7308.

Mitigation Measures

Mitigation Measure BIO-1: Migratory Bird Treaty Act. Prior to commencement of grading activities, the City Building Division shall verify that, in the event that vegetation and tree removal activities occur within the active breeding season for birds (February 1–September 15), the Project applicant (or their Construction Contractor) shall retain a qualified biologist (meaning a professional biologist that is familiar with local birds and their nesting behaviors) to conduct a nesting bird survey no more than 3 days prior to commencement of construction activities.

The nesting survey shall include the Project site and areas immediately adjacent to the site that could potentially be affected by Project-related construction activities, such as noise, human activity, and dust, etc. If active nesting of birds is observed within 100 feet of the designated construction area prior to construction, the qualified biologist shall establish an appropriate buffer around the active nests (e.g., as much as 500 feet for raptors and 300 feet for non-raptors [subject to the recommendations of the qualified biologist]), and the buffer areas shall be avoided until the nests are no longer occupied and the juvenile birds can survive independently from the nests.

Sources

City of Tustin, Municipal Code, Chapter 3, Trees and Shrubs. Available at: https://library.municode.com/ca/tustin/codes/code_of_ordinances?nodeId=ART7PUFA_CH3TRSH_7308REPL.

U.S. Fish and Wildlife Service Migratory Bird Treaty Act. Available at: <https://www.fws.gov/law/migratory-bird-treaty-act-1918>.

5.5.CULTURAL RESOURCES

Would the Project:	Potential ly Significa nt Impact	Less Than Significant with Mitigation Incorporate d	Less Than Significa nt Impact	No Impact
a) Cause a substantial adverse change in the significance of a historical resource pursuant to §15064.5?	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>
b) Cause a substantial adverse change in the significance of an archaeological resource pursuant to §15064.5?	<input type="checkbox"/>	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
c) Disturb any human remains, including those interred outside of formal cemeteries?	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>

a. Cause a substantial adverse change in the significance of a historical resource pursuant to §15064.5?

No Impact. According to the State CEQA Guidelines, a historical resource is defined as something that meets one or more of the following criteria:

1. Listed in, or determined eligible for listing in, the California Register of Historical Resources;
2. Listed in a local register of historical resources as defined in Public Resources Code (PRC) Section 5020.1(k);
3. Identified as significant in a historical resources survey meeting the requirements of PRC Section 5024.1(g); or
4. Determined to be a historical resource by the project's Lead Agency.

PRC Section 5024.1 directs evaluation of historical resources to determine their eligibility for listing on the CRHR. The criteria for listing resources on the CRHR were expressly developed to be in accordance with previously established criteria developed for listing on the NRHP, enumerated above, and require similar protection to what NHPA Section 106 mandates for historic properties.

According to PRC Section 5024.1(c)(1-4), a resource is considered historically significant if it meets at least one of the following criteria:

1. Associated with events that have made a significant contribution to the broad patterns of local or regional history or the cultural heritage of California or the United States;
2. Associated with the lives of persons important to local, California or national

history;

3. Embodies the distinctive characteristics of a type, period, region or method of construction or represents the work of a master or possesses high artistic values; or
4. Has yielded, or has the potential to yield, information important to the prehistory or history of the local area, California or the nation.

As described previously, the Project site is currently developed with two office buildings, a surface parking lot, and landscaping. A cultural records search and review of historical photos conducted as part of the cultural assessment performed for the Project (Appendix B) indicated that the Project site was developed with an agricultural grove as early as 1931, and that the surrounding area was developed with residences as early as 1896. Between 1963 and 1966, the subject property was graded, removing the agricultural grove, and in 1971 the current development was constructed. The office buildings are over 50 years old and therefore meet the minimum age threshold to require an assessment of potential eligibility to the California Register of Historical Resources (CRHR). As such, an evaluation of the structures for historical significance was prepared. Results of the evaluation determined that the structures were not of historical significance and the removal of the structures would not result in an adverse change in the significance of a historical resource pursuant to §15064.5 (Appendix C). Therefore, the Project would result in no impact on a historical resource.

b. Cause a substantial adverse change in the significance of an archaeological resource pursuant to §15064.5?

Less than Significant with Mitigation. The Cultural Resources Study prepared for the Project included a search of the California Historical Resource Information System (CHRIS) at the South Central Coastal Information Center (SCCIC), located at California State University, Fullerton. The search identified any previously recorded cultural resources and prior cultural resources investigations within a 1-mile radius of the Project site.

The records search identified six previously recorded cultural resources within the 1-mile radius and none within the Project site. These resources include one prehistoric metate, pestle, and shell site; one prehistoric stone bowl with two pestles site; the historic (circa 1925) Red Hill Water Company Pumping Plant; the historic (circa 1887) Sherman Stevens House; the historic (circa 1914) Artz Building; and the Tustin Old Town Historic Resources District. The records search results also indicate that 21 cultural resource studies have been conducted within a one-mile radius of the Project, none of which include any portion of the Project boundaries.

An archaeologist conducted the cultural resources survey of the Project area on May 25, 2022. The Project site is developed with two office buildings, hardscape, and commercial landscaping; therefore, visibility of the natural ground was completely obscured. The office buildings are over 50 years old, and therefore, are considered of historic age. No other cultural resources were identified within the property as a result of the records search and field survey.

The Cultural Resources Study determined that there is a potential for previously unknown archaeological resources to be located within the Project site. Thus, Mitigation Measure CUL-1 has been included to require that in the event that potential archaeological resources are discovered during excavation, grading, or construction activities, work shall cease within 50 feet of the find until a qualified archaeologist from the City or County List of Qualified Archaeologists has evaluated the find to determine whether the find constitutes a “unique archaeological resource,” as defined in Section 21083.2(g) of the California Public Resources Code. If determined to be a unique archaeological resource, the resource would then be treated in accordance with Section 21083.2(b). With implementation of Mitigation Measure CUL-1, impacts to archaeological resources would be less than significant.

c. Disturb any human remains, including those interred outside of formal cemeteries?

No Impact. The Project site has been previously disturbed, as described above, and has not been previously used as a cemetery. Thus, human remains are not anticipated to be uncovered during project construction. In addition, California Health and Safety Code Section 7050.5, CEQA Section 15064.5, and Public Resources Code Section 5097.98 (included as PPP CUL-1) mandate the process to be followed in the event of an accidental discovery of any human remains. Specifically, California Health and Safety Code Section 7050.5 requires that if human remains are discovered, disturbance of the site shall remain halted until the coroner has conducted an investigation into the circumstances, manner, and cause of death, and made recommendations concerning the treatment and disposition of the human remains to the person responsible for the excavation, or to his or her authorized representative, in the manner provided in Section 5097.98 of the Public Resources Code. If the coroner determines that the remains are not subject to his or her authority and if the coroner has reason to believe the human remains to be those of a Native American, he or she shall contact, by telephone within 24 hours, the Native American Heritage Commission. Compliance with existing law would ensure that significant impacts to human remains would not occur.

Existing Plans, Programs, or Policies

PPP CUL-1: Human Remains. In the event that human remains are encountered on the Project site, work within 50 ft of the discovery shall cease and the County Coroner shall be notified immediately consistent with the requirements of California Code of Regulations (CCR) Section 15064.5(e). State Health and Safety Code Section 7050.5 states that no further disturbance shall occur until the County Coroner has made a determination of origin and disposition pursuant to Public Resources Code (PRC) Section 5097.98. Prior to the issuance of grading permits, the City Community and Planning, Building, and Code Enforcement Department Director, or designee, shall verify that all grading plans specify the requirements of CCR Section 15064.5(e), State Health and Safety Code Section 7050.5, and PRC Section 5097.98, as stated above.

Mitigation Measure

Mitigation Measure CUL-1: Inadvertent Discovery. In the event that potential archaeological resources are discovered during excavation, grading, or construction activities, work shall cease within 50 feet of the find until a qualified archaeologist from the City or County List of Qualified Archaeologists has evaluated the find to determine whether the find constitutes a “unique archaeological resource,” as defined in Section 21083.2(g) of the California Public Resources Code. Any resources identified shall be treated in accordance with California Public Resources Code Section 21083.2(g). If the discovered resource(s) appears Native American in origin, a Native American Monitor shall be contacted to evaluate any potential tribal cultural resource(s) and shall have the opportunity to consult on appropriate treatment and curation of these resources. The discovery would also be reported to the City and the South Central Coastal Information Center (SCCIC).

Prior to the issuance of any permits for ground-disturbing activities that include the excavation of soils (including as grading, excavation, and trenching), the City of Tustin shall ensure that all Project grading and construction plans and specifications include requirement to halt construction activity and contact an archaeologist as specified above.

Sources

Cultural Resources Study, prepared by Brian F. Smith and Associates, 2022 (BFSA 2022), (Appendix B).

Historic Assessment Memorandum, prepared by Urbana Preservation & Planning, LLC, 2022 (Appendix C).

5.6. ENERGY

Would the Project:	Potential ly Significa nt Impact	Less Than Significant with Mitigation Incorporate d	Less Than Significa nt 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?	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>	<input type="checkbox"/>
b) Conflict with or obstruct a state or local plan for renewable energy or energy efficiency?	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>

a. Result in potentially significant environmental impact due to wasteful, inefficient, or unnecessary consumption of energy resources, during project construction or operation?

Less than Significant Impact.

Construction. During construction of the proposed Project, energy would be consumed in three general forms:

1. Petroleum-based fuels used to power off-road construction vehicles and equipment on the Project site, construction worker travel to and from the Project site, as well as delivery truck trips;
2. Electricity associated with providing temporary power for lighting and electric equipment; and
3. Energy used in the production of construction materials, such as asphalt, steel, concrete, pipes, and manufactured or processed materials such as lumber and glass.

Based on these uses of energy during construction activities, the proposed Project would not be expected to result in demand for fuel greater on a per-unit of-development basis than other development projects in Southern California. Construction of the Project does not involve any unusual or increased need for energy. In addition, the extent of construction activities that would occur is limited to an 11-month period, and the demand for construction-related electricity and fuels would be limited to that time frame.

Construction contractors are required to demonstrate compliance with applicable California Air Resources Board (CARB) regulations governing the accelerated retrofitting, repowering, or replacement of heavy-duty diesel on- and off-road equipment, which would

be verified as part of the City's construction permitting process, which is included as PPP E-1. In addition, compliance with existing CARB idling restrictions would reduce fuel combustion and energy consumption. The energy modeling shows that Project construction electricity usage over the 11-month construction period is estimated to use 10,262 gallons of diesel fuel, as shown in Table 5-6.

Table 5-6: Estimated Construction Equipment Diesel Fuel Consumption

Equipment	Number	Hours per day	Horse- power	Load Factor	Days of Construction	Total Horsepower- hours	Fuel Rate (gal/hp-hr)	Fuel Use (gallons)
Tractors/Loaders/Backhoes	3	8	84	0.37	20	14,918	0.01915595	286
Rubber Tired Dozers	1	8	367	0.4	20	23,488	0.02061516	484
Concrete/Industrial Saws	1	8	33	0.73	20	3,854	0.04182672	161
Graders	1	8	148	0.41	7	3,398	0.02116786	72
Scrapers	1	8	423	0.48	7	11,370	0.02500758	284
Tractors/Loaders/Backhoes	1	8	84	0.37	7	1,740	0.01915595	33
Graders	1	8	148	0.41	14	6,796	0.02116786	144
Rubber Tired Dozers	1	8	367	0.4	14	16,442	0.02061516	339
Tractors/Loaders/Backhoes	2	8	84	0.37	14	6,962	0.01915595	133
Cranes	1	8	367	0.29	220	187,317	0.01489692	2,790
Forklifts	2	8	82	0.2	220	57,728	0.01044404	603
Generator Sets	1	8	14	0.74	220	18,234	0.04233865	772
Tractors/Loaders/Backhoes	1	8	84	0.37	220	54,701	0.01915595	1,048
Welder	3	8	46	0.45	220	109,296	0.02583478	2,824
Tractors/Loaders/Backhoes	1	8	84	0.37	10	2,486	0.01915595	48

INITIAL STUDY

City of Tustin

Pavers	1	8	81	0.42	10	2,722	0.0215369	59
Paving Equipment	1	8	89	0.36	10	2,563	0.01846541	47
Rollers	2	8	36	0.38	10	2,189	0.01983745	43
Cement and Mortar Mixers	1	8	10	0.56	10	448	0.01976757	9
Air Compressors	1	8	78	0.48	10	2,995	0.02759304	83
Total								10,262

Source: Air Quality, Greenhouse Gas, and Energy Analysis (Appendix A)

Table 5-7 shows that construction workers would use approximately 1,596 gallons of fuel to travel to and from the Project site, and haul trucks and vendor trucks would use approximately 4,545 gallons of diesel fuel.

Table 5-7: Estimated Construction Vehicle Trip Related Fuel Consumption

Construction Source	Number	VMT	Fuel Rate	Gallons of Diesel Fuel	Gallons of Gasoline Fuel
Haul Trucks	175	3,500	5.93	591	0
Vendor Trucks	4	8,976	8.93	1,005	0
Worker Vehicles	65	122,026	26.85	0	4,545
Total				1,596	4,545

Source: Air Quality, Greenhouse Gas, and Energy Analysis (Appendix A)

This is in addition to the construction equipment fuel listed in Table 5-6, which would result in 11,858 gallons of diesel fuel and 4,545 gallons of gasoline fuel that would be used during construction of the proposed Project.

Overall, construction activities would comply with all existing regulations, and would therefore not be expected to use fuel in a wasteful, inefficient, and unnecessary manner. Thus, no impacts related to construction energy would occur.

Operation. Once operational, the Project would generate demand for electricity, natural gas, as well as gasoline for motor vehicle trips. Operational use of energy includes the heating, cooling, and lighting of the residences, water heating, operation of electrical systems and plug-in appliances, and outdoor lighting, and the transport of electricity, natural gas, and water to the residences, no additional energy infrastructure would be required to be built to operate the Project, and no operational activities would occur that would result in extraordinary energy consumption.

The proposed Project would be required to meet the current Title 24 energy efficiency standards, which is included as PPP E-1. The City's administration of the Title 24 requirements includes review of design components and energy conservation measures that occurs during the permitting process, which ensures that all requirements are met. Typical Title 24 measures include insulation; use of energy-efficient heating, ventilation and air conditioning equipment (HVAC); solar-reflective roofing materials; energy-efficient indoor and outdoor lighting systems; reclamation of heat rejection from refrigeration equipment to generate hot water; and incorporation of skylights, etc. In complying with the Title 24 standards, impacts to peak energy usage would be minimized, and impacts on statewide and regional energy needs would be reduced. Thus, operation of the Project would not use large amounts of energy or fuel in a wasteful manner, and no operational energy impacts would occur. As detailed in Table E-8, operation of the proposed Project

is estimated to result in the annual use of approximately 7,098 gallons of fuel, approximately 644,643 kilowatt-hour (kWh) of electricity, and approximately 120,839 million thousand British thermal units (kBTU) of natural gas less than the existing onsite buildings.

Table 5-8: Net Annual Operational Energy Consumption

Operational Source	Energy Usage	
Electricity (Kilowatt-Hours)		
Project	195,990	
Existing	840,633	
Net	-644,643	
Natural Gas (Thousands British Thermal Units)		
Project	1,018,434	
Existing	1,139,273	
Net	-120,839	
Petroleum (gasoline) Consumption		
	Annual VMT	Gallons of Gasoline Fuel
Project	1,116,376	41,585
Existing	1,306,902	48,682
Net	-190,544	-7,098

Source: Air Quality, Greenhouse Gas, and Energy Analysis (Appendix A)

b. Conflict with or obstruct a state or local plan for renewable energy or energy efficiency?

No Impact. The proposed Project would be required to meet the CALGreen energy efficiency standards in effect during permitting of the Project, as included as PPP E-1. The City's administration of the requirements includes review of design components and energy conservation measures during the permitting process, which ensures that all requirements are met. In addition, the Project would not conflict with or obstruct opportunities to use renewable energy, such as solar energy. As discussed, the Project

proposes to use photovoltaic (PV) solar panels on each of the residences to offset their energy demand in accordance with the existing Title 24 requirements (included as PPP E-1). As such, the Project would not conflict with or obstruct a state or local plan for renewable energy or energy efficiency, and impacts would not occur.

Existing Plans, Programs, or Policies

PPP E-1. CALGreen Compliance: The Project is required to comply with the CALGreen Building Standards Code as included in the City's Municipal Code Section 8100 to ensure efficient use of energy. CALGreen specifications are required to be incorporated into building plans as a condition of building permit approval.

PPP E-2: Idling Regulations. The Project is required to comply with California Air Resources Board (CARB) Rule 2485 (13 CCR, Chapter 10 Section 2485), Airborne Toxic Control Measure to Limit Diesel-Fueled Commercial Motor Vehicle Idling.

Mitigation Measures

None.

Sources

Air Quality, Greenhouse Gas, and Energy Impact Analysis, Prepared by EPD Solutions, 2022 (Appendix A)

5.7. GEOLOGY AND SOILS

Would the Project:	Potential y Significa nt Impact	Less Than Significant with Mitigation Incorporate d	Less Than Significa nt 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?	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>
ii) Strong seismic ground shaking?	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>	<input type="checkbox"/>
iii) Seismic-related ground failure, including liquefaction?	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>	<input type="checkbox"/>
iv) Landslides?	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>
b) Result in substantial soil erosion or the loss of topsoil?	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>	<input type="checkbox"/>
c) Be located on a geologic unit or soil that is unstable, or that would become unstable as a result of the project, and potentially result in on- or offsite landslide, lateral spreading, subsidence, liquefaction or collapse?	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>	<input type="checkbox"/>
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?	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>	<input type="checkbox"/>

- e) Have soils incapable of adequately supporting the use of septic tanks or alternative wastewater disposal systems where sewers are not available for the disposal of wastewater? ☐ ☐ ☐ ☒
- f) Directly or indirectly destroy a unique paleontological resource or site or unique geologic feature? ☐ ☒ ☐ ☐

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?**

No Impact. The Project site is not located within a designated Alquist-Priolo Earthquake Fault Zone and no faults were identified on the site (GeoTek 2021). The closest known active fault is associated with the Newport-Inglewood fault zone located approximately 10 miles to the southwest of the Project site. Therefore, the Project would not directly or indirectly cause potential risk of loss, injury, or death involving the rupture of a known earthquake fault. No impact would occur.

- ii. **Strong seismic ground shaking?**

Less than Significant Impact. The Project site is located within a seismically active region of Southern California. As mentioned previously, the Newport-Inglewood fault zone is located 10 miles from the site (GeoTek 2021). Thus, moderate to strong ground shaking can be expected at the site. The amount of motion expected at the Project site can vary from none to forceful depending upon the distance to the fault and the magnitude of the earthquake. Greater movement can be expected at sites located closer to an earthquake epicenter, that consists of poorly consolidated material such as alluvium, and in response to an earthquake of great magnitude.

Structures built in the City are required to be built in compliance with the California Building Code (CBC) (California Code of Regulations, Title 24, Part 2) that provides provisions for earthquake safety based on factors including building occupancy type, the types of soils onsite, and the probable strength of ground motion. Compliance with the CBC would require the incorporation of 1) seismic safety features to minimize the potential for significant effects as a result of earthquakes; 2) proper building footings and foundations; and 3) construction of the building structure so that it would withstand the effects of strong ground shaking. Implementation of CBC standards would be verified by the City during the plan check and permitting process. Because the proposed Project would be constructed in compliance with the CBC, the proposed Project would result in a less than significant impact related to strong seismic ground shaking.

- iii. **Seismic-related ground failure, including liquefaction?**

Less than Significant Impact. Soil liquefaction is a phenomenon in which saturated, cohesionless soils layers, located within approximately 50 feet of the ground surface, lose strength due to cyclic pore water pressure generation from seismic shaking or other large cyclic loading. During the loss of stress, the soil acquires “mobility” sufficient to permit both horizontal and vertical movements. Soil properties and soil conditions such as type, age, texture, color, and consistency, along with historical depths to ground water are used to identify, characterize, and correlate liquefaction susceptible soils.

According to the Geotechnical and Infiltration Investigation, the Project site is not susceptible to liquefaction during a seismic event (GeoTek 2021). Furthermore, groundwater was not encountered to the maximum depth of 27 feet drilled during site exploration. As a result, the potential for liquefaction to occur beneath the site is considered very low (GeoTek 2021). In addition, the proposed Project would be required to be constructed in compliance with the CBC and the City’s Municipal Code, included as PPP GEO-1, which would be verified through the City’s plan check and permitting process. With compliance with existing regulations, impacts related to seismically related ground failure and liquefaction would be less than significant.

iv. Landslides?

No Impact. Landslides and other slope failures are secondary seismic effects that occur during or soon after earthquakes. Areas that are most susceptible to earthquakes induced landslides are steep slopes underlain by loose, weak soils, and areas on or adjacent to existing landslide deposits.

According to the Geotechnical and Infiltration Investigation, the site slopes gently downward to the north towards Irvine Boulevard with less than five feet of elevation differential across the property. Due to the general flat terrain, the potential for seismic induced landslides is considered low (GeoTek 2021). Therefore, the Project would not cause potential substantial adverse effects related to seismically induced landslides.

b. Result in substantial soil erosion or the loss of topsoil?

Less than Significant Impact. Construction of the Project has the potential to contribute to soil erosion and the loss of topsoil. Grading and excavation activities that would be required for the proposed Project would expose and loosen topsoil, which could be eroded by wind or water.

Project construction would be required to comply with the California Regional Water Quality Control Board (RWQCB) Order No. R8-2010-0033, National Pollutant Discharge Elimination System (NPDES) Permit No. CAS618033 – Construction General Permit requirements. Requirements include installation of Best Management Practices (BMPs), which establishes minimum stormwater management requirements and controls. To reduce the potential for soil erosion and the loss of topsoil, a Stormwater Pollution Prevention Plan (SWPPP) is required by the RWQCB regulations to be developed by a QSD (Qualified SWPPP Developer), which would be implemented by PPP WQ-1. The SWPPP is required to address site-specific conditions related to specific grading and construction activities. The SWPPP would identify potential sources of erosion and sedimentation to prevent loss of topsoil during construction, and to identify erosion control

BMPs to reduce or eliminate the erosion and loss of topsoil, such as use of silt fencing, fiber rolls, or gravel bags; stabilized construction entrances/exits; hydroseeding, and similar measures. In addition to RWQCB requirements, the Project would need to comply with the City of Tustin Grading Manual procedures. With compliance with stormwater management requirements, RWQCB SWPPP requirements, and installation of BMPs, which would be implemented by the City's Project review by the Department of Public Works, construction impacts related to erosion and loss of topsoil would be less than significant.

c. Be located on a geologic unit or soil that is unstable, or that would become unstable as a result of the project, and potentially result in on- or offsite landslide, lateral spreading, subsidence, liquefaction or collapse?

Less than Significant Impact. Landslides and other forms of mass wasting, including mud flows, debris flows, and soil slips, occur as soil moves downslope under the influence of gravity. Landslides are frequently triggered by intense rainfall or seismic shaking. As described in Response a) iv., the Project site is located in a relatively flat developed urban area that does not contain or adjacent to large slopes, and the Project would not generate large slopes. Therefore, impacts related to landslides would not occur.

Lateral spreading is a type of liquefaction-induced ground failure associated with the lateral displacement of surficial blocks of sediment resulting from liquefaction in a subsurface layer. Once liquefaction transforms the subsurface layer into a fluid mass, gravity plus the earthquake inertial forces may cause the mass to move downslope towards a free face (such as a river channel or an embankment). Lateral spreading may cause large horizontal displacements and such movement typically damages pipelines, utilities, bridges, and structures. According to the Geotechnical Investigation, the Project site is not within a liquefaction zone, and high groundwater is not located at the Project site. Therefore, the site has a low potential for lateral spreading. In addition, site soils settlement would be reduced with implementation of the excavation and recompaction of the upper two feet of onsite soils as proposed by the project and compliance with the CBC. Thus, impacts related to lateral spreading would be less than significant.

Subsidence is a general lowering of the ground surface over a large area that is generally attributed to lowering of the ground water levels within a groundwater basin. Localized or focal subsidence or settlement of the ground can occur as a result of an earthquake motion in an area where groundwater in basin is lowered. As described previously, groundwater was not encountered to the maximum depth of 27 feet drilled during site exploration (GeoTek 2021). In addition, the Project would not involve groundwater pumping from the Project area. Thus, impacts related to subsidence would not occur from implementation of the Project.

Also, as described in Response a) iii., the Project site is not within a potential liquefaction area as groundwater is not located within 27 feet of the ground surface. Construction would include removal and re-compaction of onsite soils in compliance with the CBC which would also reduce any potential of liquefaction, settlement, and subsidence. Therefore, impacts would be less than significant. As described previously, the Project would be required to be constructed in compliance with the CBC and the City's Municipal Code, which would be verified through the City's plan check and permitting process. Thus,

potential impacts related to liquefaction, settlement, and subsidence would be less than significant.

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?

Less than Significant Impacts. Expansive soils contain certain types of clay minerals that shrink or swell as the moisture content changes; the shrinking or swelling can shift, crack, or break structures built on such soils. Arid or semiarid areas with seasonal changes of soil moisture experience, such as southern California, have a higher potential of expansive soils than areas with higher rainfall and more constant soil moisture.

The Geotechnical and Infiltration Investigation determined that the site soils are anticipated to have a “low” expansion potential based on soils testing. In addition, as described in the previous responses, the Project would be required to be constructed in compliance with the CBC and the City’s Municipal Code, that requires appropriate back fill, compaction of soils, and foundation design to ensure stable soils, which would be verified through the City’s plan check and permitting process. Thus, impacts related to expansive soils would be less than significant.

e. Have soils incapable of adequately supporting the use of septic tanks or alternative wastewater disposal systems where sewers are not available for the disposal of wastewater?

No Impact. No septic tanks or alternative wastewater disposal systems are proposed as part of the Project. The Project would install onsite sewers that would connect to the existing infrastructure that is adjacent to the site. Therefore, no impacts related to the use of such facilities would occur from implementation of the Project.

f. Directly or indirectly destroy a unique paleontological resource or site or unique geologic feature?

Less than Significant with Mitigation. Paleontological resources, or fossils, are the remains of ancient plants and animals that can provide scientifically significant information about the history of life on Earth. Paleontological “sensitivity” is defined as the potential for a geologic unit to produce scientifically significant fossils. This sensitivity is determined by rock type, past history of the rock unit in producing significant fossils, and fossil localities that are recorded from that unit. Paleontological sensitivity is assigned based on fossil data collected from the entire geologic unit, not just a specific site.

The geologic units underlying the Project site are mapped as Holocene and late Pleistocene young alluvial fan deposits mostly consisting of unconsolidated, alluvial silty sands. Holocene alluvium is generally considered to be geologically too young to contain significant paleontological resources and is thus typically assigned a low paleontological sensitivity. However, Pleistocene alluvial and alluvial fan deposits are considered to have a higher paleontological resource sensitivity.

The Paleontological Resources Assessment (included as Appendix E) prepared for the Project included a locality and records search performed by the OC Parks Division of Orange County. The records search indicates that no fossil localities were identified within the Project boundaries or near the Project site. The closest-known fossil localities are located within five miles southeast of the Project, consisting of Pleistocene-aged marine

invertebrate fossils and fish remains. As described previously, the Project site has been disturbed from previous development activities which reduces the potential of existing resources onsite. However, Project grading and construction activities has the potential to encroach into native soils that have not been previously disturbed and could contain paleontological resources. Therefore, Mitigation Measure PAL-1 has been included to provide procedures to be followed in the unlikely event that potential paleontological resources are discovered during grading or excavation activities. Mitigation Measure PAL-1 requires that work shall cease within 50 feet of a find until a qualified paleontologist has evaluated the find in accordance with federal and state regulations. Mitigation Measure PAL-1 would reduce potential impacts to undiscovered paleontological resources to a less than significant level.

Existing Plans, Policies, or Programs

PPP GEO-1: California Building Code. The project is required to comply with the California Building Code as included in the City's Municipal Code Article 8, Chapter 1, Section 8100 to preclude significant adverse effects associated with seismic hazards. California Building Code related and geologist and/or civil engineer specifications for the project are required to be incorporated into grading plans and specifications as a condition of project approval.

Mitigation Measures

Mitigation Measure PAL-1: Paleontological Resources. Prior to issuance of a grading permit, the City of Tustin Building Division shall verify that all Project grading and construction plans and specifications state that in the event that potential paleontological resources are discovered during earth disturbance activities, the discovery shall be cordoned off with a 100-foot radius buffer so as to protect the discovery from further potential damage until a qualified paleontologist (i.e., a practicing paleontologist that is recognized in the paleontological community and is proficient in vertebrate paleontology) from the City or County List of Qualified Paleontologists has evaluated the find in accordance with federal and state regulations. Construction personnel shall not collect or move any paleontological materials and associated materials.

If the discovery is determined to be significant by the paleontologist, a Paleontological Resources Impact Mitigation Plan (PRIMP) shall be implemented, which will include notification of appropriate personnel involved and monitoring of earth disturbance activities:

1. Monitoring of mass grading and excavation activities in areas identified as likely to contain paleontological resources shall be performed by a qualified paleontologist or paleontological monitor. Monitoring will be conducted full-time in areas of grading or excavation in undisturbed sedimentary deposits.
2. Paleontological monitors will be equipped to salvage fossils as they are unearthed to avoid construction delays. The monitor must be empowered to temporarily halt or divert equipment to allow removal of abundant or large specimens in a timely manner. Monitoring may be reduced if the potentially fossiliferous units are not present in the subsurface, or, if present, are determined on exposure and examination by qualified paleontological personnel to have low potential to contain

fossil resources. The monitor shall notify the project paleontologist, who will then notify the concerned parties of the discovery.

3. Paleontological salvage during trenching and boring activities is typically from the generated spoils and does not delay the trenching or drilling activities. Fossils are collected and placed in cardboard flats or plastic buckets and identified by field number, collector, and date collected. Notes are taken on the map location and stratigraphy of the site, which is photographed before it is vacated, and the fossils are removed to a safe place. On mass grading projects, discovered fossil sites are protected by flagging to prevent them from being overrun by earthmovers (scrapers) before salvage begins. Fossils are collected in a similar manner, with notes and photographs being taken before removing the fossils. Precise location of the site is determined with the use of handheld GPS units. If the site involves remains from a large terrestrial vertebrate, such as large bone(s) or a mammoth tusk, that is/are too large to be easily removed by a single monitor, a fossil recovery crew shall excavate around the find, encase the find within a plaster and burlap jacket, and remove it after the plaster is set. For large fossils, use of the contractor's construction equipment may be solicited to help remove the jacket to a safe location.
4. Isolated fossils are collected by hand, wrapped in paper, and placed in temporary collecting flats or five-gallon buckets. Notes are taken on the map location and stratigraphy of the site, which is photographed before it is vacated, and the fossils are removed to a safe place.
5. Particularly small invertebrate fossils typically represent multiple specimens of a limited number of organisms, and a scientifically suitable sample can be obtained from one to several five-gallon buckets of fossiliferous sediment. If it is possible to dry screen the sediment in the field, a concentrated sample may consist of one or two buckets of material. For vertebrate fossils, the test is usually the observed presence of small pieces of bones within the sediments. If present, as many as 20 to 40 five gallon buckets of sediment can be collected and returned to a separate facility to wet screen the sediment.
6. In accordance with the "Microfossil Salvage" section of the Society of Vertebrate Paleontology guidelines (2010:7), bulk sampling and screening of fine-grained sedimentary deposits (including carbonate-rich paleosols) must be performed if the deposits are identified to possess indications of producing fossil "microvertebrates" to Paleontological Assessment for the 17802 Irvine Boulevard Project test the feasibility of the deposit to yield fossil bones and teeth.
7. In the laboratory, individual fossils are cleaned of extraneous matrix, any breaks are repaired, and the specimen, if needed, is stabilized by soaking in an archivally approved acrylic hardener (e.g., a solution of acetone and Paraloid B-72).
8. Recovered specimens are prepared to a point of identification and permanent preservation (not display), including screen-washing sediments to recover small invertebrates and vertebrates. Preparation of individual vertebrate fossils is often more time-consuming than for accumulations of invertebrate fossils.
9. Identification and curation of specimens into a professional, accredited public museum repository with a commitment to archival conservation and permanent retrievable storage (e.g., the former Cooper Center facility of OC Parks) shall be

conducted. The paleontological program should include a written repository agreement prior to the initiation of mitigation activities. Prior to curation, the lead agency (e.g., the City of Tustin) will be consulted on the repository/museum to receive the fossil material.

10. A final report of findings and significance will be prepared, including lists of all fossils recovered and necessary maps and graphics to accurately record their original location(s). The report, when submitted to, and accepted by, the appropriate lead agency, will signify satisfactory completion of the project program to mitigate impacts to any potential nonrenewable paleontological resources (i.e., fossils) that might have been lost or otherwise adversely affected without such a program in place.

Sources

Geotechnical and Infiltration Evaluation, prepared by GeoTek, Inc., 2021. (GeoTek 2021) (Appendix D).

Paleontological Resources Assessment, prepared by Brian F. Smith and Associates, Inc., 2022. (BFSA 2022) (Appendix E).

5.8. 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 impact on the environment?	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>	<input type="checkbox"/>
b) Conflict with an applicable plan, policy or regulation adopted for the purpose of reducing the emissions of greenhouse gases?	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>	<input type="checkbox"/>

GHG Thresholds

The City of Tustin has not adopted a numerical significance threshold to evaluate greenhouse gas (GHG) impacts. SCAQMD does not have approved thresholds; however, it does have draft thresholds that provides a tiered approach to evaluate GHG impacts, which includes the following:

Tier 1 consists of evaluating whether or not the project qualifies for any applicable exemption under CEQA.

Tier 2 consists of determining whether the project is consistent with a GHG reduction plan. If a project is consistent with a qualifying local GHG reduction plan, it does not have significant GHG emissions.

Tier 3 consists of screening values, which the lead agency can choose, but must be consistent with all projects within its jurisdiction. A project's construction emissions are averaged over 30 years and are added to the project's operational emissions. If a project's emissions are below one of the following screening thresholds, then the project is less than significant:

- Residential and Commercial land use: 3,000 metric tons of carbon dioxide equivalent (MTCO₂e) per year
- Industrial land use: 10,000 MTCO₂e per year
- Based on land use type: residential: 3,500 MTCO₂e per year; commercial: 1,400 MTCO₂e per year; or mixed use: 3,000 MTCO₂e per year

The SCAQMD's draft threshold uses the Executive Order S-3-05 year 2050 goal as the basis for the Tier 3 screening level. Achieving the Executive Order's objective would contribute to worldwide efforts to cap CO₂ concentrations at 450 parts per million (ppm), thus stabilizing global climate. Therefore, for purposes of examining potential GHG impacts from implementation of the proposed Project, and to provide a conservative analysis of potential impacts, the Tier 3 screening level for all land use projects of 3,000

MTCO₂e was selected as the significance threshold (EPD 2022).

In addition, SCAQMD methodology for project construction emissions are to average them over 30-years and then add them to the project's operational emissions to determine if the project would exceed the screening values listed above (EPD 2022).

a. Generate greenhouse gas emissions, either directly or indirectly, that may have a significant impact on the environment?

Less than Significant Impact. Construction activities produce GHG emissions from various sources, such as site excavation, grading, utility engines, heavy-duty construction vehicles onsite, equipment hauling materials to and from the site, asphalt paving, and motor vehicles transporting the construction crew.

In addition, operation of the proposed residences would result in area and indirect sources of operational GHG emissions that would primarily result from vehicle trips, electricity and natural gas consumption, water transport (the energy used to pump water), and solid waste generation. GHG emissions from electricity consumed by the residences would be generated off-site by fuel combustion at the electricity provider. GHG emissions from water transport are also indirect emissions resulting from the energy required to transport water from its source.

The estimated operational GHG emissions that would be generated from implementation of the proposed Project were determined using the California Emissions Estimator Model (CalEEMod Version 2022.1) as detailed in Appendix A and shown in Table 5-9. Additionally, in accordance with SCAQMD recommendation, the Project's amortized construction related GHG emissions are added to the operational emissions estimate in order to determine the project's total annual GHG emissions.

Table 5-9: Net Greenhouse Gas Emissions

Activity	Annual GHG Emissions (MTCO ₂ e)
Project Operational Emissions	
Mobile	396
Area	10
Energy	86
Water	4
Waste	3
Total Project Gross Operation Emissions	499
Project Construction Emissions	14

Total Emissions	513
Existing Emissions	693
Net Emissions	-180
Significance Threshold	3,000
Threshold Exceeded?	No

Source: Air Quality, Greenhouse Gas, and Energy Impact Analysis (Appendix A)

As shown on Table 5-9, the Project's net GHG emissions are -180 MTCO_{2e} per year, below the existing operation and below the screening threshold of 3,000 MTCO_{2e} per year. Therefore, impacts related to greenhouse gas emissions would be less than significant.

b. Conflict with an applicable plan, policy or regulation adopted for the purpose of reducing the emissions of greenhouse gases?

Less than Significant Impact. The Project would not conflict with an applicable plan, policy or regulation adopted for the purpose of reducing the emissions of greenhouse gases. As described in the previous response, the Project would not exceed thresholds related to GHG emissions. In addition, the Project would comply with regulations imposed by the state and the SCAQMD that reduce GHG emissions, as described below:

- Global Warming Solutions Act of 2006 (AB 32) is applicable to the Project because many of the GHG reduction measures outlined in AB 32 (e.g., low carbon fuel standard, advanced clean car standards, and cap-and-trade) have been adopted over the last 5 years and implementation activities are ongoing. The proposed residences would not conflict with fuel and car standards or cap-and-trade.
- Title 24 California Code of Regulations (Title 24) establishes energy efficiency requirements for new construction that address the energy efficiency of new (and altered) buildings. The Project is required to comply with Title 24, which would be verified by the City during the plan check and permitting process.
- Title 17 California Code of Regulations (Low Carbon Fuel Standard [LCFS]) requires carbon content of fuel sold in California to be 10 percent less by 2020. Because the LCFS applies to any transportation fuel that is sold or supplied in California, all vehicle trips generated by the Project would comply with LCFS.
- California Water Conservation in Landscaping Act of 2006 (AB 1881) provides requirements to ensure water efficient landscapes in new development and reduced water waste in existing landscapes. The Project is required to comply with AB 1881 landscaping requirements, which would be verified by the City during the plan check and permitting process.
- Emissions from vehicles, which are a main source of operational GHG emissions, would be reduced through implementation of federal and state fuel and air quality emissions requirements that are implemented by CARB. In addition, as described in

the previous response, the Project would not result in an exceedance of an air quality standard.

The City currently does not have an adopted Climate Action Plan to reduce GHG emissions, and as described in the previous response, emissions would not exceed the thresholds. Therefore, implementation of the Project would not conflict with any applicable plan, policy or regulation adopted for the purpose of reducing the emissions of greenhouse gases.

Existing Plans, Programs, or Policies

None.

Mitigation Measures

None.

Sources

Air Quality, Greenhouse Gas, and Energy Impact Analysis, Prepared by EPD Solutions, 2022 (Appendix A)

5.9. 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?	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>	<input type="checkbox"/>
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?	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>	<input type="checkbox"/>
c) Emit hazardous emissions or handle hazardous or acutely hazardous materials, substances, or waste within one-quarter mile of an existing or proposed school?	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>	<input type="checkbox"/>
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?	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>	<input type="checkbox"/>
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?	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>

- f) Impair implementation of or physically interfere with an adopted emergency response plan or emergency evacuation plan? ☐ ☐ ☒ ☐
- g) Expose people or structures, either directly or indirectly, to a significant risk of loss, injury or death involving wildland fires? ☐ ☐ ☐ ☒

a. Create a significant hazard to the public or the environment through the routine transport, use, or disposal of hazardous materials?

Less than Significant Impact. A hazardous material is defined as any material that, due to its quantity, concentration, or physical or chemical characteristics, poses a significant present or potential hazard to human health and safety or to the environment if released into the workplace or environment. Hazardous materials include, but are not limited to, hazardous substances, hazardous wastes, and any material that a business or the local implementing agency has a reasonable basis for believing would be injurious to the health and safety of persons or harmful to the environment if released into the workplace or the environment. Hazardous wastes require special handling and disposal because of their potential to damage public health and the environment.

Construction

The proposed construction activities would involve the transport, use, and disposal of hazardous materials such as paints, solvents, oils, grease, and caulking. In addition, hazardous materials would be needed for fueling and servicing construction equipment on the site. These types of materials are not acutely hazardous, and all storage, handling, use, and disposal of these materials are regulated by federal and state requirements that are implemented by the City during building permitting for construction activities. These regulations include: the federal Occupational Safety and Health Act and Hazardous Materials Transportation Act; Title 8 of the California Code of Regulations (CalOSHA), and the state Unified Hazardous Waste and Hazardous Materials Management Regulatory Program. As a result, routine transport and use of hazardous materials during construction would be less than significant.

Operation

The Project involves operation of 40 new residential units, which involve routinely using hazardous materials including solvents, cleaning agents, paints, pesticides, batteries, fertilizers, and aerosol cans. These types of materials are not acutely hazardous and would only be used and stored in limited quantities. The normal routine use of these hazardous materials products pursuant to existing regulations would not result in a significant hazard to people or the environment in the vicinity of the Project. Therefore, operation of the Project would not result in a significant hazard to the public or to the environment through the routine transport, use, or disposal of hazardous waste, and impacts would be less than significant.

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?

Less than Significant Impact.

Construction

Accidental Releases. While the routine use, storage, transport, and disposal of hazardous materials in accordance with applicable regulations during construction activities would not pose health risks or result in significant impacts; improper use, storage, transportation and disposal of hazardous materials and wastes could result in accidental spills or releases, posing health risks to workers, the public, and the environment. To avoid an impact related to an accidental release, the use of BMPs during construction are implemented as part of a SWPPP as required by the National Pollution Discharge Elimination System General Construction Permit (and included as PPP WQ-1). Implementation of an SWPPP would minimize potential adverse effects to workers, the public, and the environment. Construction contract specifications would include strict on-site handling rules and BMPs that include, but are not limited to:

- Establishing a dedicated area for fuel storage and refueling and construction dewatering activities that includes secondary containment protection measures and spill control supplies;
- Following manufacturers' recommendations on the use, storage, and disposal of chemical products used in construction;
- Avoiding overtopping construction equipment fuel tanks;
- Properly containing and removing grease and oils during routine maintenance of equipment; and
- Properly disposing of discarded containers of fuels and other chemicals.

Asbestos. Asbestos is a naturally occurring fibrous material that was used as a fireproofing and insulating agent in building construction before such uses were banned by the United States Environmental Protection Agency (USEPA). The presence of asbestos can be found in materials such as ducting insulation, wallboard, shingles, ceiling tiles, floor tiles, insulation, plaster, floor backing, and many other building materials. Asbestos and asbestos-containing materials (ACMs) are both a hazardous air pollutant and a human health hazard. The risk to human health is from inhalation of airborne asbestos, which commonly occurs when ACMs are disturbed during such activities as demolition and renovation.

The Occupational Safety and Health Administration (OSHA) regulation 29 CFR 1926.1101 requires certain construction materials to be presumed to contain asbestos, for purposes of this regulation. All thermal system insulation, surfacing material, and asphalt/vinyl flooring that are present in a building constructed prior to 1981 and have not been appropriately tested are "presumed asbestos-containing material".

The buildings within the Project site were constructed prior to 1981 when ACMs were commonly used and the Phase I ESA identified suspected asbestos containing material

in the existing structure on the site. As a result, asbestos abatement contractors must follow state regulations contained in California Code of Regulations Sections 1529, and 341.6 through 341.14 as implemented by SCAQMD Rule 1403 to ensure that asbestos removed during demolition of the existing buildings is done appropriately and transported and disposed of at an appropriate facility. The contractor and hauler of the material is required to file a Hazardous Waste Manifest which details the hauling of the material from the site and the disposal of it. Section 19827.5 of the California Health and Safety Code requires that local agencies not issue demolition permit until an applicant has demonstrated compliance with notification requirements under applicable federal regulations regarding hazardous air pollutants, including asbestos. These requirements are included as PPP HAZ-1 to ensure that the Project applicant submits verification to the City that the appropriate activities related to asbestos have occurred, which would reduce the potential of impacts related to asbestos to a less than significant level.

Lead. Lead-based materials may also be located within existing structures on the Project site. The lead exposure guidelines provided by the U.S. Department of Housing and Urban Development provide regulations related to the handling and disposal of lead-based products. Federal regulations to manage and control exposure to lead-based paint are described in Code of Federal Regulations Title 29, Section 1926.62, and state regulations related to lead are provided in the California Code of Regulations Title 8 Section 1532.1, as implemented by Cal-OSHA. These regulations cover the demolition, removal, cleanup, transportation, storage and disposal of lead-containing material. The regulations outline the permissible exposure limit, protective measures, monitoring and compliance to ensure the safety of construction workers exposed to lead-based materials. Cal/OSHA's Lead in Construction Standard requires Project applicants to develop and implement a lead compliance plan when lead-based paint would be disturbed during construction or demolition activities. The plan must describe activities that could emit lead, methods for complying with the standard, safe work practices, and a plan to protect workers from exposure to lead during construction activities. In addition, Cal/OSHA requires 24-hour notification if more than 100 square feet of lead-based paint would be disturbed. These requirements are included as PPP HAZ-2 to ensure that the Project applicant submits verification to the City that the appropriate activities related to lead have occurred, which would reduce the potential of impacts related to lead-based materials to a less than significant level.

Operation

As described previously, operation of the proposed 40 residential units includes use of limited hazardous materials, such as solvents, cleaning agents, paints, pesticides, batteries, fertilizers, and aerosol cans. Normal routine use of typical residential products pursuant to existing regulations would not result in a significant hazard to the environment, residents, or workers in the vicinity of the Project. As a result, operation of the proposed Project would not create a reasonably foreseeable upset and accident condition involving the release of hazardous materials into the environment, and impacts would be less than significant.

c. Emit hazardous emissions or handle hazardous or acutely hazardous materials, substances, or waste within one-quarter mile of an existing or proposed school?

Less than Significant Impact. The Columbus Tustin Middle School is located approximately 544 feet north of the Project site. In addition, the Helen Estock Elementary School is located approximately 0.26-mile northwest of the site and the Tustin Connect K-8 School is located approximately 0.30-mile northwest of the site. However, as described previously, construction and operation of the Project would involve the use, storage, and disposal of small amounts of hazardous materials on the Project site. These hazardous materials would be limited and used and disposed of in compliance with federal, state, and local regulations, which would reduce the potential for accidental release into the environment near a school. The emissions that would be generated from construction and operation of the Project were evaluated in the air quality analysis discussed above, and the emissions generated from the Project would not cause or contribute to an exceedance of the federal or state air quality standards. Thus, the Project would not emit hazardous or handle acutely hazardous materials, substances, or waste near a school, and impacts would be less than significant.

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?

Less than Significant Impact. According to the Phase I Environmental Site Assessment, which included a database search of local, regional, state, and federal databases related to hazardous materials, the Project site is identified in the HAZNET and Hazardous Waste Tracking System (HWTS) databases (Phase I 2021). The site is identified in the HAZNET database for generating state-regulated wastes including “metal sludge (Alkaline solution (pH \geq 12.5) with metals)” that were manifested for off-site disposal in 1995 (Phase I 2021). The wastes were disposed through recycling. Based on the lack of violations and/or listing in other databases indicating a release, these listings are not expected to have created an environmental concern at the Project site. Therefore, the listing would not create a significant hazard to the public or the environment and impacts would be less than significant.

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

No Impact. The Project site is not located within two miles of an airport. The closest airport is the John Wayne Airport, which is approximately 5 miles southeast of the Project site. The Project site is not located within any land use compatibility zone for the nearest airport, nor is it within an airport safety zone. Therefore, the Project would not result in a safety hazard for people residing or working in the Project areas, and no impacts would occur.

f. Impair implementation of an adopted emergency response plan or emergency evacuation plan?

Less than Significant Impact.

Construction

The proposed construction activities, including equipment and supply staging and storage, would occur within the Project site and would not restrict access of emergency vehicles to the Project site or adjacent areas. During construction of the Project driveway, Irvine Boulevard would remain open to ensure adequate emergency access to the Project area and vicinity. Impacts related to interference with an adopted emergency response or evacuation plan during construction activities would be less than significant.

Operation

Operation of the proposed Project would not result in a physical interference with an emergency response evacuation. Direct access to the Project site would be provided from Irvine Boulevard, which is a 6-lane arterial roadway that is adjacent to the Project site. The Project is also required to design and construct internal access and provide fire suppression facilities (e.g., hydrants and sprinklers) in conformance with the City Municipal Code and the Fire Department prior to approval to ensure adequate emergency access pursuant to the requirements in Section 503 of the California Fire Code (Title 24, California Code of Regulations, Part 9) and the Fire Code included per Municipal Code Chapter 93.01. As a result, the proposed Project would not impair implementation of or physically interfere with an adopted emergency response plan or emergency evacuation plan, and impacts would be less than significant.

g. Expose people or structures, either directly or indirectly, to a significant risk of loss, injury or death involving wildland fires?

No Impact. According to the California Fire Hazard Severity Zones mapping, the Project site is not within or adjacent to a Very High Fire Hazard zone. The Project site is located within an urbanized and redevelopment of the site with residential uses would not result in impacts related to the exposure of people or structures to loss, injury, or death involving wildland fires. Therefore, no impact would occur.

Existing Plans, Programs, or Policies

PPP HAZ-1: SCAQMD Rule 1403, Asbestos. Prior to issuance of demolition permits, the Project applicant shall submit verification to the City Building Division that an asbestos survey has been conducted at all existing buildings located on the Project site. If asbestos is found, the Project applicant shall follow all procedural requirements and regulations of South Coast Air Quality Management District Rule 1403. Rule 1403 regulations require that the following actions be taken: notification of SCAQMD prior to construction activity, asbestos removal in accordance with prescribed procedures, placement of collected asbestos in leak-tight containers or wrapping, and proper disposal.

PPP HAZ-2: Lead Based Paint. Prior to issuance of demolition permits, the Project applicant shall submit verification to the City Building Division that a lead-based paint survey has been conducted at all existing buildings located on the Project site. If lead-based paint is found, the Project applicant shall follow all procedural requirements and regulations for proper removal and disposal of the lead-based paint. Cal-OSHA has established limits of exposure to lead contained in dusts and fumes. Specifically, CCR Title 8, Section 1532.1 provides for exposure limits, exposure monitoring, and respiratory protection, and mandates good working practices by workers exposed to lead.

Mitigation Measures

No mitigation measures related to hazards and hazardous materials are required.

Sources

Phase I Environmental Site Assessment, prepared by Partner Engineering and Science, Inc. (Phase I 2021) (Appendix F).

California Department of Forestry and Fire Protection. 2022. California Fire Hazard Severity Zones ([FHSZ](https://osfm.fire.ca.gov/divisions/community-wildfire-preparedness-and-mitigation/wildland-hazards-building-codes/fire-hazard-severity-zones-maps/)). Available: <https://osfm.fire.ca.gov/divisions/community-wildfire-preparedness-and-mitigation/wildland-hazards-building-codes/fire-hazard-severity-zones-maps/>

5.10. 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?	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>	<input type="checkbox"/>
b) Substantially decrease groundwater supplies or interfere substantially with groundwater recharge such that the project may impede sustainable groundwater management of the basin?	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>	<input type="checkbox"/>
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:	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>	<input type="checkbox"/>
i) result in a substantial erosion or siltation on- or off-site;	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>	<input type="checkbox"/>
ii) substantially increase the rate or amount of surface runoff in a manner which would result in flooding on- or offsite;	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>	<input type="checkbox"/>
iii) create or contribute runoff water which would exceed the capacity of existing or planned stormwater drainage systems or provide substantial additional sources of polluted runoff; or	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>	<input type="checkbox"/>

- | | | | | |
|---|--------------------------|--------------------------|-------------------------------------|-------------------------------------|
| iv) impede or redirect flood flows? | <input type="checkbox"/> | <input type="checkbox"/> | <input checked="" type="checkbox"/> | <input type="checkbox"/> |
| d) In flood hazard, tsunami, or seiche zones, risk release of pollutants due to project inundation? | <input type="checkbox"/> | <input type="checkbox"/> | <input type="checkbox"/> | <input checked="" type="checkbox"/> |
| e) Conflict with or obstruct implementation of a water quality control plan or sustainable groundwater management plan? | <input type="checkbox"/> | <input type="checkbox"/> | <input checked="" type="checkbox"/> | <input type="checkbox"/> |

a. Violate any water quality standards or waste discharge requirements or otherwise substantially degrade surface or ground water quality?

Less than Significant Impact.

Construction. Construction of the Project would require grading and excavation of soils, which would loosen sediment, and then have the potential to mix with surface water runoff and degrade water quality. Additionally, construction would require the use of heavy equipment and construction-related chemicals, such as concrete, cement, asphalt, fuels, oils, antifreeze, transmission fluid, grease, solvents and paints. These potentially harmful materials could be accidentally spilled or improperly disposed of during construction and, if mixed with surface water runoff, could wash into and pollute waters.

These types of water quality impacts during construction of the Project would be prevented through implementation of a SWPPP. Construction of the Project would disturb more than one acre of soil; therefore, the proposed Project would be required to obtain coverage under the NPDES General Permit for Discharges of Storm Water Associated with Construction Activity. Construction activity subject to this permit includes clearing, grading, and ground disturbances such as trenching, stockpiling, or excavation. The Construction General Permit requires implementation of a SWPPP that is required to identify all potential sources of pollution that are reasonably expected to affect the quality of storm water discharges from the construction site. The SWPPP would generally contain a site map showing the construction perimeter, proposed buildings, stormwater collection and discharge points, general pre- and post-construction topography, drainage patterns across the site, and adjacent roadways. The SWPPP would also include construction BMPs.

Adherence to the existing requirements and implementation of the appropriate BMPs, as ensured through the City's plan check and permitting process, are included as PPP WQ-1, which would ensure that the Project would not violate any water quality standards or waste discharge requirements, potential water quality degradation associated with construction activities would be minimized, and impacts would be less than significant.

Operation. The proposed Project includes operation of residential uses. Potential pollutants associated with the proposed uses include various chemicals from cleaners, pathogens from pet wastes, nutrients from fertilizer, pesticides and sediment from landscaping, trash and debris, and oil and grease from vehicles. If these pollutants discharge into surface waters, it could result in degradation of water quality.

However, operation of the proposed Project would be required to comply with the requirements of the 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 (included as PPP WQ-2).

The DAMP regulations are included in the City's Municipal Code in Section 4902 and are the implementation method for NPDES Stormwater Permit compliance. The DAMP:

- Provides the framework for the program management activities and plan development;
- Provides the legal authority for prohibiting unpermitted discharges into the storm drain system and for requiring BMPs in new development and significant redevelopment;
- Ensures that all new development and significant redevelopment incorporates appropriate Site Design, Source Control, and Treatment Control BMPs to address specific water quality issues; and
- Ensures that construction sites implement control practices that address construction related pollutants including erosion and sediment control and onsite hazardous materials and waste management.

The DAMP requires that new development and significant redevelopment projects develop and implement a water quality management plan (WQMP) that includes BMPs and low impact development (LID) design features that would provide onsite treatment of stormwater to prevent pollutants from onsite uses from leaving the site. A Preliminary WQMP has been developed (included as Appendix G) per these requirements and recommends various BMPs to be incorporated into the Project. The WQMP is required to be approved prior to the issuance of a building or grading permit.

As described previously, the WQMP is required to be approved prior to the issuance of a building or grading permit. The Project's WQMP would be reviewed and approved by the City to ensure it complies with the MS4 Permit regulations. In addition, the City's permitting process would ensure that all BMPs in the WQMP would be implemented with the Project. Overall, implementation of the WQMP pursuant to the existing regulations (included as PPP WQ-2) would ensure that operation of the proposed Project would not violate any water quality standards, waste discharge requirements, or otherwise degrade water quality; and impacts would be less than significant.

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

Less than Significant Impact. The City's Urban Water Management Plan (UWMP) describes that in 2020, the City's water supply was made up of 96 percent groundwater and 4 percent imported water (purchased from the Municipal Water District of Orange

County [MWDOC] and East Orange County Water District [EOCWD]). The groundwater is managed by the Orange County Water District (OCWD). The OCWD manages basin water supply through the Basin Production Percentage (BPP), which is set based on groundwater conditions, availability of imported supplies, and precipitation. As detailed on Table 5-10, the City's UUWMP shows that the anticipated production of groundwater would decrease by 156 acre-feet between 2025 and 2045. It is projected that by 2045, the water supply mix will change to approximately 85 percent groundwater and 15 percent imported water.

Table 5-10: UWMP Projected Water Supply (2025-2045)

Water Supply	Projected Water Supply (af)				
	2025	2030	2035	2040	2045
Groundwater (OC Basin)	8,569	8,604	8,521	8,440	8,413
Purchased/Imported (MWDOC/EOCWD)	1,512	1,518	1,504	1,489	1,485
Total	10,081	10,122	10,025	9,929	9,898

Source: City of Tustin UWMP 2020

As detailed in Section 5.19, *Utilities and Service Systems*, the supply of water listed in Table 5-10 would be sufficient during both normal years and multiple dry year conditions between 2025 and 2045 to meet all of the City's estimated needs, including the proposed Project. Therefore, the Project would not result in changes to the projected groundwater pumping that would decrease groundwater supplies. Thus, impacts related to groundwater supplies would be less than significant.

The Project site currently consists of 95 percent impervious surfaces (5 percent pervious). After completion of Project construction, the site would be 90 percent impervious and 10 percent pervious (WQMP 2022), which is an increase of 5 percent pervious surface area. The proposed Project would follow a similar drainage pattern as the existing. Existing drainage is split between two drainage areas with catch basins in the north and southwest corners of the Project site. Surface flows would be directed into an area drain system or into onsite curb and gutters which would convey the flow to the underground storm drain system. All flows would be conveyed to an infiltration detention pipe where water would be stored onsite until it can percolate into the ground. This would assist in reduction of groundwater demand and provide infiltration of stormwater.

According to the Hydrology Study prepared for the Project (included as Appendix H), the Project would decrease the flow rate to the existing drainage easement in 17772 Irvine Boulevard by 1.43 cubic feet per second (cfs) during the 50-year storm event and by 1.62 cfs during the 100-year storm event. The Project would increase the flow rate to Irvine Boulevard by 1.83 cfs during the 50-year storm even and by 2.08 cfs during the 100-year storm event. However, the site would utilize a detention infiltration system to retain and

treat a water quality design capture volume that is larger than the increased flow. The underground detention system would be utilized to store the water quality volume to allow infiltration to recharge the groundwater. Therefore, impacts related to interference with groundwater recharge would be less than significant.

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 a substantial erosion or siltation on- or off-site;

Less Than Significant Impact. The Project site does not include, and is not adjacent to, a natural stream or river. Implementation of the Project would not alter the course of a stream or river.

Construction

Construction of the proposed Project would require demolition of the existing building structures, including foundations and floor slabs, and crushing the existing pavement that would expose and loosen building materials and sediment, which has the potential to mix with storm water runoff and result in erosion or siltation offsite. However, the Project site does not include any slopes, which reduces the erosion potential, and the large majority of soil disturbance would be related to excavation and backfill for installation of building foundations and underground utilities.

The NPDES Construction General Permit and Orange County DAMP require preparation and implementation of a SWPPP by a Qualified SWPPP Developer for the proposed construction activities (included as PPP WQ-1). The SWPPP is required to address site-specific conditions related to potential sources of sedimentation and erosion and would list the required BMPs that are necessary to reduce or eliminate the potential of erosion or alteration of a drainage pattern during construction activities.

In addition, a Qualified SWPPP Practitioner (QSP) is required to ensure compliance with the SWPPP through regular monitoring and visual inspections during construction activities. The SWPPP would be amended and BMPs revised, as determined necessary through field inspections, in order to protect against substantial soil erosion, the loss of topsoil, or alteration of the drainage pattern. Compliance with the Construction General Permit and a SWPPP prepared by a QSD and implemented by a QSP (per PPP WQ-1) would prevent construction related impacts related to potential alteration of a drainage pattern or erosion from development activities. With implementation of the existing construction regulations that would be verified by the City during the permitting approval process, impacts related to alteration of an existing drainage pattern during construction that could result in substantial erosion, siltation, and increases in stormwater runoff would be less than significant.

Operation

The Project site currently consists of 95 percent impervious surfaces and 5 percent pervious. After completion of Project construction, the site would be 90 percent impervious and 10 percent pervious (WQMP 2022), which is an increase of 5 percent pervious surface area. The impervious areas would not be subject to erosion and the pervious areas would be landscaped with groundcovers that would inhibit erosion. The

proposed Project would follow a similar drainage pattern as the existing and is split between two drainage areas with catch basins in the north and southwest corners of the Project site. Surface flows would be directed into an area drain system or into onsite curb and gutters which would convey the flow to the underground storm drain system. All flows would be conveyed to an infiltration detention pipe where water would be stored onsite until it can percolate into the ground. During a major storm event when the detention pipe fills to capacity, the stormwater would be directed to match the existing flow pattern. To relieve overflow resulting from severe storm events, two emergency overflow locations are proposed. One is a culvert on Irvine Boulevard to the north and the other is a grate inlet of the existing parking lot gutter in 17772 Irvine Boulevard.

As discussed previously, the Project would increase the flow rate to Irvine Boulevard by 1.83 cfs during the 50-year storm even and by 2.08 cfs during the 100-year storm event. However, the installation of onsite landscaping, detention infiltration system, and catch basins would be designed to accommodate the increased flow volume.

Additionally, the MS4 permit and DAMP require new development projects to prepare a WQMP (included as PPP WQ-2) that is required to include BMPs to reduce the potential of erosion and/or sedimentation through site design and structural treatment control BMPs. The Preliminary WQMP has been completed and is included as Appendix G. As part of the permitting approval process, the proposed drainage and water quality design and engineering plans would be reviewed by the City's Engineering Division to ensure that the site-specific design limits the potential for erosion and siltation. Overall, the proposed drainage system and adherence to the existing regulations would ensure that Project impacts related to alteration of a drainage pattern and erosion/siltation from operational activities would be less than significant.

- ii. substantially increase the rate or amount of surface runoff in a manner which would result in flooding on- or offsite;

Less Than Significant Impact. The Project site does not include, and is not adjacent to, a natural stream or river. Implementation of the Project would not alter the course of a stream or river.

Construction

Construction of the proposed Project would require demolition of the existing building structures, including foundations, floor slabs, and utilities systems, and crushing the existing pavement. These activities could temporarily alter the existing drainage pattern of the site and change runoff flow rates. However, as described previously, implementation of the Project requires a SWPPP (included as PPP WQ-1) that would address site specific drainage issues related to construction of the Project and include BMPs to eliminate the potential of flooding or alteration of a drainage pattern during construction activities. This includes regular monitoring and visual inspections during construction activities. Compliance with the Construction General Permit and a SWPPP prepared by a QSD and implemented by a QSP (per PPP WQ-1) as verified by the City through the construction permitting process would prevent construction-related impacts related to potential alteration of a drainage pattern or flooding on- or offsite from development activities. Therefore, construction impacts would be less than significant.

Operation

As described previously, the proposed Project would result in a decrease of impervious surfaces. However, the Project would follow a similar drainage pattern as the existing and convey runoff to landscaped areas or into the underground storm drain system. All flows would be conveyed to an infiltration detention pipe where water would be stored onsite until it can percolate into the ground. As discussed previously, the Project would increase the flow rate to Irvine Boulevard by 1.83 cfs during the 50-year storm even and by 2.08 cfs during the 100-year storm event. However, the installation of onsite landscaping, detention infiltration system, and catch basins would be designed to accommodate the increased flow volume. Therefore, an increase in the rate or amount of surface runoff in a manner which would result in flooding on- or offsite would not occur.

As part of the permitting approval process, the proposed drainage design and engineering plans would be reviewed by the City's Engineering Division to ensure that the proposed drainage would accommodate the appropriate design flows. Overall, the proposed drainage system and adherence to the existing MS4 permit and DAMP regulations would ensure that project impacts related to alteration of a drainage pattern or flooding from operational activities would be less than significant.

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

Less Than Significant Impact. As described previously, the Project site does not include, and is not adjacent to, a natural stream or river. Implementation of the Project would not alter the course of a stream or river.

Construction

As described in the previous response, construction of the proposed Project would require demolition, concrete crushing, and excavation activities that could temporarily alter the existing drainage pattern of the site and could result in increased runoff and polluted runoff if drainage is not properly controlled. However, implementation of the Project requires a SWPPP (included as PPP WQ-1) that would address site-specific pollutant and drainage issues related to construction of the Project and include BMPs to eliminate the potential of polluted runoff and increased runoff during construction activities. This includes regular monitoring and visual inspections during construction activities. Compliance with the Construction General Permit and a SWPPP prepared by a QSD and implemented by a QSP (per PPP WQ-1) as verified by the City through the construction permitting process would prevent construction-related impacts related to increases in run-off and pollution from development activities. Therefore, impacts would be less than significant.

Operation

As described previously, the proposed Project would result in a decrease of impervious surfaces. The Project would manage stormwater flows with landscaping and catch basins that have been designed to accommodate the stormwater volume pursuant to the MS4 permit and DAMP requirements. All flows would be conveyed to an infiltration detention pipe where water would be stored onsite until it can percolate into the ground. As discussed previously, absent appropriate onsite design features, the Project would

increase the flow rate to Irvine Boulevard by 1.83 cfs during the 50-year storm even and by 2.08 cfs during the 100-year storm event. However, the installation of onsite landscaping, detention infiltration system, and catch basins would be designed to accommodate the increased flow volume. Therefore, an increase in runoff that could exceed the capacity of storm drain systems and provide polluted runoff would not occur.

As part of the permitting approval process, the proposed drainage design and engineering plans would be reviewed by the City's Engineering Division to ensure that the proposed drainage would accommodate the appropriate design flows. Additionally, the City permitting process would ensure that the drainage system specifications adhere to the existing MS4 permit and DAMP regulations, which would ensure that pollutants are removed prior to discharge. Overall, with compliance to the existing regulations as verified by the City's permitting process, Project impacts related to the capacity of the drainage system and polluted runoff would be less than significant.

iv. impede or redirect flood flows?

Less Than Significant Impact. According to the Federal Emergency Management Agency (FEMA) Map 06059C0277J, the Project site is within Flood Zone X, or the 0.2 percent annual change flood area, areas of one percent annual chance flood with average depth less than one foot or with drainage areas of less than one square mile (FEMA 2022). The site is not within a special flood hazard area. As detailed in the previous responses, implementation of the Project would result in a 5 percent decrease of impermeable surfaces on the site. The Project would maintain the existing drainage pattern; and drainage would be accommodated by onsite landscaping and catch basins that have been sized to accommodate the DAMP required design storm. Therefore, the Project would not result in impeding or redirecting flood flows by the addition of the impervious surfaces. As detailed previously, the City's permitting process would ensure that the drainage system specifications adhere to the existing MS4 permit and DAMP regulations, and compliance with existing regulations would ensure that impacts would be less than significant.

v. In flood hazard, tsunami, or seiche zones, risk release of pollutants due to project inundation?

No Impact. According to the Federal Emergency Management Agency (FEMA) Map 06059C0277J, the Project site is within Flood Zone X, or the 0.2 percent annual change flood area, areas of one percent annual chance flood with average depth less than one foot or with drainage areas of less than one square mile (FEMA 2022). The site is not within a special flood hazard area.

A seiche is a surface wave created when an inland body of water is shaken, usually by earthquake activity. The site also is not subject to flooding hazards associated with a seiche because there are no large body of surface water located near the project site to result in effects related to a seiche, which could result in release in pollutants due to inundation of the site.

The Pacific Ocean is located over 12 miles southwest of the Project site; consequently, there is no potential for the Project site to be inundated by a tsunami that could release pollutants. In addition, the Project site is flat and not located near any steep hillsides;

therefore, there is no potential for the site to be adversely affected by mudflow. Thus, implementation of the proposed Project would not expose people or structures to a significant risk of loss, injury, or death involving inundation by seiche, tsunami, or mudflow that could release pollutants due to inundation of the Project site. No impact would occur.

- vi. Conflict with or obstruct implementation of a water quality control plan or sustainable groundwater management plan?

Less Than Significant Impact. As described previously, use of BMPs during construction implemented as part of a SWPPP as required by the NPDES Construction General Permit and PPP WQ-1 would serve to ensure that Project impacts related to construction activities resulting in a degradation of water quality would be less than significant. Thus, construction of the Project would not conflict or obstruct implementation of a water quality control plan.

Also, as described previously, new development projects are required to implement a WQMP (per PPP WQ-2) that would comply with the Orange County DAMP. The WQMP and applicable BMPs are verified as part of the City's permitting approval process, and construction plans would be required to demonstrate compliance with these regulations. Therefore, operation of the proposed Project would not conflict with or obstruct implementation of a water quality control plan.

In addition, as detailed previously, the OCWD manages basin water supply through the BPP, such that, the anticipated production of groundwater would remain steady from 2025 through 2045 (as shown in Table 5-10). As described previously and further detailed in Section 5.19, *Utilities and Service Systems*, the City's supply of water listed in Table 5-10 would be sufficient during both normal years and multiple dry year conditions between 2025 and 2045 to meet all of the City's estimated needs, including the proposed Project. Therefore, the Project would be consistent with the groundwater management plan and would not conflict with or obstruct its implementation. Thus, impacts related to water quality control plan or sustainable groundwater management plan would be less than significant.

Existing Plans, Programs, or Policies

PPP WQ-1: NPDES/SWPPP. Prior to issuance of any grading or demolition permits, the applicant shall provide the City Building Division evidence of compliance with the NPDES (National Pollutant Discharge Elimination System) requirement to obtain a construction permit from the State Water Resource Control Board (SWRCB). The permit requirement applies to grading and construction sites of one acre or larger. The Project applicant/proponent shall comply by submitting a Notice of Intent (NOI) and by developing and implementing a Stormwater Pollution Prevention Plan (SWPPP) and a monitoring program and reporting plan for the construction site.

PPP WQ-2: WQMP. Prior to the approval of the Grading Plan and issuance of Grading Permits a completed Water Quality Management Plan (WQMP) shall be prepared by the Project applicant and submitted to and approved by the City Building Division. The WQMP shall identify all Post-Construction, Site Design, Source Control, and Treatment Control Best Management Practices (BMPs) that will be incorporated into the development Project in order to minimize the adverse effects on receiving waters.

Mitigation Measures

None.

Sources

Arcadis U.S. Inc., 2021. City of Tustin Urban Water Management Plan. Available at <https://www.tustinca.org/DocumentCenter/View/5138/Tustin-2020-UWMP>

Bittner, Ryan J., 2022. Preliminary Water Quality Management Plan (Appendix G).

C&V Consulting, Inc., 2022. Preliminary Hydrology Study (Appendix H).

Federal Emergency Management Agency (FEMA 2022). FEMA Flood Map Service Center. Map 06059C0277J. Available at: <https://msc.fema.gov/portal/home>

5.11. 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?	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>	<input type="checkbox"/>
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?	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>

a. Physically divide an established community?

No Impact. The physical division of an established community could occur if a major road were built through an established community or neighborhood, or if a major development was built which was inconsistent with the land uses in the community such that it divided the community. The environmental effects caused by such could include lack of a, or disruption of, access to services, schools, or shopping areas. It could also include the creation of blighted buildings or areas due to the division of the community.

The Project site is currently developed with two office buildings and is bound by a roadway followed by a park and school to the north, residential developments to the east and south, and office uses followed by residential development to the west. The proposed Project would redevelop the site to provide 18 duplexes and four single-family residences (40 units total), which are consistent with the existing residential development to the west, east, and south of the site. Therefore, the change of the Project site from office uses to residential uses would not physically divide an established community. In addition, the Project would not change roadways, or install any infrastructure that would result in a physical division. Thus, the proposed Project would not result in impacts related to physical division of an established community, and no impact would result.

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 mitigation an environmental effect?

Less Than Significant Impact. As described previously, the Project site is located adjacent to Irvine Boulevard, residential development, park uses, and office uses. The Project would redevelop the site to provide 18 duplexes and four single-family residences (40 units total), which would be similar to the residential uses that are located adjacent to the site. Residential uses are also consistent with the adjacent park and school facilities.

General Plan. The Project site currently has a General Plan land use designation of Professional Office. While the Professional Office land use designation primarily allows professional offices and other supporting uses, the proposed Project includes a General Plan Amendment to change the land use designation of the site from Professional Office to High Density Residential.

As discussed earlier, the General Plan Land Use Element states that the High-Density Residential designation allows for the development of a wide range of living accommodations including single family units, multi-family dwellings, such as apartments, condominiums, townhomes, cooperatives, and community apartments with a density range of 15-25 dwelling units per acre. As the Project would develop residences in the High-Density Residential designation at a density of 19.3 dwelling units per acre, it would be consistent with the proposed land use designations, and the proposed change in land uses would be less than significant.

Zoning. The Project site is currently zoned as Retail Commercial (C-1), and the Project would include a zone change to change the site's zoning from C-1-Retail Commercial to R-3-Multiple Family Residential to allow for the development of the eighteen (18) duplexes (36 units) and four (4) single-family residences. As detailed earlier, in Table 5-1, the Project would be consistent with the Municipal Code standards for the Multiple-Family (R-3) zone. Thus, the proposed Project would not conflict with any applicable zoning regulations adopted for the purpose of avoiding or mitigating an environmental effect, and impacts would be less than significant.

Existing Plans, Programs, or Policies

None.

Mitigation Measures

None.

Sources

City of Tustin, 2018. City of Tustin General Plan Land Use Element. Accessed: <https://www.tustinca.org/DocumentCenter/View/713/City-of-Tustin-General-Plan-PDF>

City of Tustin, 2022. City of Tustin Municipal Code (2022 Update 1). Accessed: https://library.municode.com/ca/tustin/codes/code_of_ordinances

5.12. MINERAL RESOURCES

Would the Project:	Potentially Significant Impact	Less Significant Mitigation Incorporated	Than with	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?	<input type="checkbox"/>	<input type="checkbox"/>		<input type="checkbox"/>	<input checked="" type="checkbox"/>
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?	<input type="checkbox"/>	<input type="checkbox"/>		<input type="checkbox"/>	<input checked="" type="checkbox"/>

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?

No Impact. According to the California Department of Conservation (CDOC), the Project site is in an area generally classified as Sand and Gravel Resource Area and Portland Cement Concrete Aggregate Resource Area. Although the region is classified for these resources, the Project site is not currently or planned for mineral extraction. Therefore, the Project would result in no impact.

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?

No Impact. The Conservation/Open Space/Recreation Element identifies one mineral resource within the City of Tustin known as Mercury-Barite within Red Hill. However, this resource is not utilized. In addition, the Project site is not located within the mineral resource area and implementation of the Project would not affect the availability of Mercury-Barite. According to the General Plan, no mining operations are currently active within the City limits, and none are being considered. Therefore, the Project would result in no impact to mineral resources.

Plans, Policies, and Programs

None.

Mitigation Measures

None.

Sources

California Department of Conservation (CDOC), 2022. CGS Information Warehouse:
Mineral Land Classification. Accessed:
<https://maps.conservation.ca.gov/mineralresources>

5.13. 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?	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>	<input type="checkbox"/>
b) Generation of excessive ground borne vibration or ground borne noise levels?	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>	<input type="checkbox"/>
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?	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>	<input type="checkbox"/>

The discussion below is based on the Noise Impact Analysis prepared by LSA (Appendix I). The following noise regulatory setting includes local, state, and federal standards applicable to the Project site.

Noise Element of the General Plan

The following applicable goals and policies to the proposed project are from the Noise Element of the City's General Plan.

- Policy 2.3: Use noise/land use compatibility standards as a guide for future planning and development.
- Policy 2.4: Review proposed projects in terms of compatibility with nearby noise-sensitive land uses with the intent of reducing noise impacts.
- Policy 2.5: Require new residential developments located in proximity to existing commercial/industrial operations to control residential interior noise levels as a condition of approval.

- Policy 3.2: Minimize the impacts of construction noise on adjacent land uses through limiting the permitted hours of activity.

Noise Impact Areas

The noise environment for the Tustin Planning Area can be described using noise contours developed for the major noise sources within the area. The noise contours are used as a guide for planning. The 60 dB CNEL contour defines the noise impact area. Any proposed new noise sensitive land use (i.e., residential, hospitals, schools and churches) within this area shall be evaluated on a project specific basis to meet City or State (Title 24) standards. An acoustical analysis prepared by a qualified acoustical engineer, should be required in these Noise Impact Areas for all noise sensitive land uses verifying that the structure has been designed or mitigation measures proposed to limit intruding noise to the prescribed allowable levels.

Residences next to a number of major and secondary arterials in the Tustin Planning Area are also exposed to a CNEL over 65 dB. These arterials include: Irvine Boulevard among others (Bryan Avenue, Edinger Street, Fairhaven Avenue, Newport Avenue, Red Hill Avenue, Yorba Street, Prospect Avenue, Browning Avenue, 17th Street, El Camino Real, McFadden Street, Walnut Avenue, and Sycamore Avenue).

Land Use Compatibility

Table 5-11 provides guidance for the acceptability of certain development projects within specific CNEL contours and will act as a set of criteria for assessing the compatibility of proposed land uses within the noise environment.

Additionally, the City has established interior and exterior noise standards for the various land use categories. Residential (single family, multifamily, duplex, and mobile home) land use has an interior noise standard of CNEL 45 dB and exterior CNES 65 dB. A project in an area incompatible with existing noise levels may be approved if is mitigated as necessary to achieve City standards interior and exterior noise standards before issuance of building permits or other appropriate milestones.

Table 5-11: Tustin Land Use Compatibility Standards (Table N-2 of General Plan)

Land Uses	Community Noise Equivalent Level (CNEL)						
	<55	60	65	70	75	80>	
Residential – Single Family, Duplex, Multiple Family	A	A	B	C	C	D	D
Legend: ZONE A: CLEARLY COMPATIBLE Specified land use is satisfactory, based upon the assumption that any buildings involved are of normal conventional construction without any special noise insulation requirements. ZONE B: NORMALLY COMPATIBLE New construction or development should be undertaken only after detailed analysis of the noise reduction requirements are made and needed noise insulation features in the design are determined. Conventional construction, with closed windows and fresh air supply systems or air conditioning, will normally suffice. ZONE C: NORMALLY INCOMPATIBLE New construction or development should generally be discouraged. If new construction or development does proceed, a detailed analysis of noise reduction requirements must be made and needed noise insulation features included in the design ZONE D: CLEARLY INCOMPATIBLE New construction or development should generally not be undertaken. Source: Section City of Tustin, 2012. City of Tustin General Plan Noise Element.							

City of Tustin Municipal Code

City of Tustin Municipal Code Section 4613, Designated Noise Zones

Article 4, Chapter 6 of the City's Municipal Code establishes the maximum permissible noise level that may intrude into a neighbor's property. The Noise Ordinance establishes noise level standards for various land use categories affected by stationary noise sources. Land use categories in the City are defined by five noise zones, as listed below. Table D provides the City's maximum noise standard based on the noise zone, the location of the noise (exterior/interior), and the time period.

Noise Zone 1: All residential properties

Noise Zone 2: All commercial properties

Noise Zone 3: All industrial properties

Noise Zone 4: All special properties such as hospitals, convalescent homes, public and institutional schools, libraries and churches

Noise Zone 5: All mixed-use properties.

Table 5-12. City of Tustin Maximum Noise Level Standards

Noise Zone	Exterior/ Interior	Time Period	L50 (30 mins)	L25 (15 mins)	L8 (5 mins)	L2 (1 min)	Lmax (Anytime)
1	Exterior	7:00 AM to 10:00 PM	55	60	65	70	75
		10:00 PM to 7:00 AM	50	55	60	65	70
	Interior	7:00 AM to 10:00 PM	—	—	55	60	65
		10:00 PM to 7:00 AM	—	—	45	50	55
2	Exterior	Anytime	60	65	70	75	80
3	Exterior	Anytime	70	75	80	85	90
4	Exterior	Anytime	55	60	65	70	75
5	Exterior	Anytime	60	65	70	75	80

City of Tustin Municipal Code Section 4616, Specific Disturbing Noises Prohibited

(2) Construction, repairing, remodeling or demolition and grading. The erection, demolition, alteration, repair, excavation, grading, paving or construction of any building

or site is prohibited between the hours of 6:00 p.m. and 7:00 a.m., Monday through Friday and 5:00 p.m. and 9:00 a.m. on Saturdays and during all hours Sundays and city observed federal holidays. Trucks, vehicles and equipment that are making or are involved with material deliveries, loading or transfer of materials, equipment service, maintenance of any devices or appurtenances to any construction project in the City shall not be operated on or adjacent to said sites outside of the approved hours for construction activity.

Federal Transit Administration

The City does not have daytime construction noise level limits for activities that occur within the specified hours in Section 11.80.030(D)(7) to determine potential noise impacts; therefore, construction noise is assessed using criteria from the Transit Noise and Vibration Impact Assessment Manual (FTA Manual). The most sensitive nearby receptors would include residential uses to the south of the Project site. The FTA Manual General Assessment Construction Noise Criteria identifies a Daytime 1-hour L_{eq} (dBA) threshold of 90 and a Nighttime 1-hour L_{eq} (dBA) threshold of 80 composite noise levels for residential uses.

The construction noise threshold from Transit Noise and Vibration Impact Assessment (2018), identifies a significant construction noise impact if construction noise exceeds 80 dBA L_{eq} over an eight-hour period during the daytime at the nearby sensitive receivers (e.g. residential, etc.).

The Transit Noise and Vibration Impact Assessment (2018) provide thresholds for increases in ambient noise from vehicular traffic based on increases to ambient noise. An impact would occur if existing noise levels at noise-sensitive land uses (e.g. residential, etc.) are less than 60 dBA CNEL and the project creates an increase of 3 dBA CNEL or greater project-related noise level increase; or if existing noise levels range from 60 to 65 dBA CNEL and the project creates 2 dBA CNEL or greater noise level increase.

Caltrans Transportation and Construction Vibration Guidance Manual

The City does not have vibration standards that are applicable to the proposed project, hence, California Department of Transportation's (Caltrans) Transportation and Construction Vibration Guidance Manual guidelines are used as a screening tool for assessing the potential for adverse vibration effects related to structural damage and human perception. Caltrans guidance defines the threshold of perception from transient sources as 0.25 inch per second PPV.

Existing Noise Levels

The Project site is currently developed with two commercial office buildings. As detailed in the Noise Impact Analysis (Appendix I), to identify the existing ambient noise level environment, 24-hour noise level measurements were taken at two locations on the project site (shown on Figure 3) from July 25 to July 26, 2022. The measured sound levels in dBA have been used to calculate the minimum and maximum L_{eq} averaged over 1-hour intervals. The primary existing source of ambient noise on the Project site is traffic from Irvine Boulevard. Hourly noise levels at surrounding sensitive uses are as low as 43.6 dBA L_{eq} during nighttime hours and 50.6 dBA L_{eq} during daytime hours as shown in Table 5-13.

Table 5-13: Existing (Ambient) Noise Measurement Results

Location	Location Description	Daytime Noise Levels¹ (dBA Leq)	Evening Noise Levels² (dBA Leq)	Nighttime Noise Levels³ (dBA Leq)	Average Daily Noise Levels (dBA CNEL)
LT-1	Northeast corner of project site, near the proposed northern facades of the residential units.	67.6 – 69.5	65.1 – 67.4	53.6 – 66.4	70.0
LT-2	Southern corner of project site near Prospect Park.	50.6 – 63.1	60.2 – 61.1	43.6 – 58.5	62.0

Source: Compiled by LSA (August 2022).

- 1 Daytime Noise Levels = noise levels during the hours of 7:00 a.m. to 7:00 p.m.
- 2 Evening Noise Levels = noise levels during the hours of 7:00 p.m. to 10:00 p.m.
- 3 Nighttime Noise Levels = noise levels during the hours of 10:00 p.m. to 7:00 a.m.

dBA = A-weighted decibels

ft = foot/feet

CNEL = Day-night Level

Leq = equivalent continuous sound level

Source: Noise Impact Analysis (Appendix I)

Figure 3. Noise Measurement Locations

- 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?**

Less than Significant Impact.

Construction

As described above, City of Tustin Municipal Code Section 4616 prohibits construction noise between the hours of 6:00 p.m. and 7:00 a.m., Monday through Friday and 5:00 p.m. and 9:00 a.m. on Saturdays and during all hours Sundays and city observed federal holidays. The Project would comply with the City's construction hours regulations, as required by standard City Conditions of Approval. Construction activities are anticipated to last approximately 11 months.

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

Noise impacts from construction activities associated with the proposed project would be a function of the noise generated by construction equipment, equipment location, sensitivity of nearby land uses, and the timing and duration of the construction activities. The nearest sensitive receptors would include residential uses, approximately 135 feet south of the from the center of proposed construction activities within the Project site.

In order to determine if the proposed construction activities would create a significant substantial temporary noise increase, the FTA construction noise criteria thresholds was utilized, which states that a significant construction noise impact would occur if construction noise exceeds 80 dBA during the daytime at any of the nearby homes. Table 5-14 lists typical construction equipment noise levels recommended for noise impact assessments, based on a distance of 50 feet between the equipment and a noise receptor, taken from the Federal Highway Administration (FHWA) Roadway Construction Noise Model.

As shown in Table 5-14, Project construction composite noise levels at a distance of 50 feet would range from 74 dBA Leq to 89 dBA Leq, with the highest noise levels occurring during the demolition phase. Table 5-15 shows the nearest sensitive uses to the project site, their distance from the center of construction activities, and composite noise levels

expected during construction. These noise level projections do not consider intervening topography or barriers. While construction noise will vary, it is expected that composite noise levels during construction at the nearest off-site sensitive residential use to the south would reach an average noise level of 80 dBA Leq during daytime hours. These predicted noise levels would only occur when all construction equipment is operating simultaneously, which is unlikely, and therefore, are assumed to be conservative in nature. While construction-related short-term noise levels have the potential to be higher than existing ambient noise levels in the Project area under existing conditions, construction noise would be temporary and intermittent. Construction noise would stop following completion of the Project. Therefore, Project construction would result in a less than significant impact.

Table 5-14: Typical Construction Equipment Noise Levels

Equipment Description	Acoustical Usage Factor (%)¹	Maximum Noise Level (L_{max}) at 50 Feet²
Auger Drill Rig	20	84
Backhoes	40	80
Compactor (ground)	20	80
Compressor	40	80
Cranes	16	85
Dozers	40	85
Dump Trucks	40	84
Excavators	40	85
Flat Bed Trucks	40	84
Forklift	20	85
Front-end Loaders	40	80
Graders	40	85
Impact Pile Drivers	20	95
Jackhammers	20	85
Paver	50	77
Pickup Truck	40	55
Pneumatic Tools	50	85
Pumps	50	77

Rock Drills	20	85
Rollers	20	85
Scrapers	40	85
Tractors	40	84
Trencher	50	80
Welder	40	73

Source: Appendix I Noise Impact Analysis

¹ Usage factor is the percentage of time during a construction noise operation that a piece of construction equipment is operating at full power.

² Maximum noise levels were developed based on Specification 721.560 from the Central Artery/ Tunnel program to be consistent with the City of Boston's Noise Code for the "Big Dig" project.

FHWA = Federal Highway Administration Lmax = maximum instantaneous sound level

Table 5-15: Potential Construction Noise Impacts at Nearest Receptors

Receptor (Location)	Composite Noise Level (dBA Leq) at 50 feet ¹	Distance (feet)	Composite Noise Level (dBA Leq)
Residences (South)	89	135	80
Residences (East)		285	73
Commercial (West)		285	73
School (North)		670	66

Source: Appendix I Noise Impact Analysis

Operation

The Project proposes the construction of 40 residential units, including 18 duplexes and 4 single family units, as well as the incorporation of open recreational space, landscaping, and drive aisles. Noise generated by the Project would primarily occur from traffic. In order to assess the potential traffic impacts related to the proposed project, anticipated traffic that would result from Project operation was used to determine future noise levels on surrounding land uses as a result of the Project. It is anticipated that a net addition of 297 average daily trips (ADT) would be generated by the proposed Project in addition to the existing traffic levels. The results of Project noise modeling determined that an increase of approximately 0.06 dBA CNEL from existing noise levels (as shown in Table 5-13) is expected to result from the Project along the streets adjacent to the Project site. A noise level increase of less than 1 dBA would not be perceptible to the human ear;

therefore, the traffic noise increase in the vicinity of the project site resulting from the proposed project would be less than significant.

b) Generation of excessive ground-borne vibration or ground-borne noise levels?

Less than Significant Impact.

Construction

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

Table 5-16: Vibration Source Amplitudes for Construction Equipment

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

¹ RMS vibration velocity in decibels (VdB) is 1 μ in/sec.

² Equipment shown in **bold** is expected to be used on site.

μ in/sec = microinches per second

ft = foot/feet

FTA = Federal Transit Administration in/sec =

inch/inches per second

LV = velocity in decibels PPV = peak

particle velocity

RMS = root-mean-square

VdB = vibration velocity decibels

Source: Appendix I Noise Impact Analysis

Table 5-16 shows the PPV and VdB values at 25 feet from the construction vibration source. Bulldozers and other heavy-tracked construction equipment (expected to be used for this Project) generate approximately 0.089 PPV in/sec or 87 VdB of ground-borne

vibration when measured at 25 feet, based on the FTA Manual. The distance to the nearest buildings for vibration impact analysis is measured between the nearest off-site buildings and the project construction boundary (assuming the construction equipment would be used at or near the project setback line).

The threshold at which vibration levels would result in annoyance would be 78 VdB for daytime residential uses. FTA guidelines indicate that for a non-engineered timber and masonry building, the construction vibration damage criterion is 0.2 in/sec in PPV.

Table 5-17: Potential Construction Vibration Annoyance Impacts at Nearest Receptor

Receptor (Location)	Reference Vibration Level (VdB) at 25 ft ¹	Distance (ft) ²	Vibration Level (VdB)
Residences (South)	87	135	65
Residences (East)		285	55
Commercial (West)		285	55
School (North)		670	44
Source: Appendix I Noise Impact Analysis			
¹ The reference vibration level is associated with a large bulldozer, which is expected to be representative of the heavy equipment used during construction.			
² The reference distance is associated with the average condition, identified by the distance from the center of construction activities to surrounding uses.			
ft = foot/feet			
VdB = vibration velocity decibels			

Table 5-18: Potential Construction Vibration Damage Impacts at Nearest Receptor

Receptor (Location)	Reference Vibration Level (VdB) at 25 ft ¹	Distance (ft) ²	Vibration Level (VdB)
Residences (South)	87	35	0.054
Residences (East)		50	0.031
Commercial (West)		50	0.031
School (North)		520	0.001
Source: Appendix I Noise Impact Analysis			
¹ The reference vibration level is associated with a large bulldozer, which is expected to be representative of the heavy equipment used during construction.			
² The reference distance is associated with the peak condition, identified by the distance from the perimeter of construction activities to surrounding structures.			
ft = foot/feet			
VdB = vibration velocity decibels			

Based on the information provided in Table 5-17, vibration levels are expected to approach 65 VdB at the closest residential uses located immediately south of the Project site, which is below the 78 VdB threshold for annoyance.

The closest structure to the project site is the residential uses to the south of site, approximately 33 feet from the limits of construction activity. It is expected that vibration levels generated by dump trucks and other large equipment that would operate near the property line would generate ground-borne vibration levels of up to 0.054 PPV (in/sec) at the closest structure to the Project site. This vibration level would not exceed the 0.2 PPV (in/sec) threshold considered safe for non-engineered timber and masonry buildings. All other structures are further away and would experience lower vibration levels. Because construction activities are regulated by the City's Municipal Code, which states that construction, maintenance, or demolition activities are allowed between the hours of 7:00 a.m. and 6:00 p.m. Monday through Friday and 9:00 a.m. and 5:00 p.m. on Saturdays, vibration impacts would not occur during the more sensitive nighttime hours. Therefore, vibration impacts would be less than significant.

Operation

The proposed project would not generate vibration levels related to on-site operations. In addition, vibration levels generated from project-related traffic on the adjacent roadways are unusual for on-road vehicles because the rubber tires and suspension systems of on-road vehicles provide vibration isolation. Vibration levels generated from Project-related traffic on the adjacent roadways would be less than significant.

- 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?**

Less Than Significant Impact. Airport-related noise levels are primarily associated with aircraft engine noise made while aircraft are taking off, landing, or running their engines while still on the ground. The closest airport to the proposed Project site is John Wayne Airport (JWA), located approximately 5.15 miles south of the Project site.

The Project site is outside the 65 dBA CNEL noise contour, or Noise Impact Zone "1", and the 60 dBA CNEL noise contour, or Noise Impact Zone "2", of JWA based on the JWA Airport Impact Zones map in the Airport Environs Land Use Plan (Orange County Airport Land Use Commission 2008). Therefore, the Project site is not expected to experience airport related noise levels in excess of the City of Tustin exterior standards. Impacts would be less than significant.

Existing Plans, Programs, or Policies

PPP N-1: City of Tustin Municipal Code Section 4616, Specific Disturbing Noises Prohibited

(2) Construction, repairing, remodeling or demolition and grading. The erection, demolition, alteration, repair, excavation, grading, paving or construction of any building or site is prohibited between the hours of 6:00 p.m. and 7:00 a.m., Monday through Friday and 5:00 p.m. and 9:00 a.m. on Saturdays and during all hours Sundays and city observed federal holidays. Trucks, vehicles and equipment that are making or are involved with material deliveries, loading or transfer of materials, equipment service, maintenance of any devices or appurtenances to any construction project in the City shall not be operated on or adjacent to said sites outside of the approved hours for construction activity.

Mitigation Measures

None.

Sources

City of Tustin, 2018. City of Tustin General Plan Noise Element. Accessed: <https://www.tustinca.org/DocumentCenter/View/713/City-of-Tustin-General-Plan-PDF>

City of Tustin, 2022. City of Tustin Municipal Code (2022 Update 1). Accessed: https://library.municode.com/ca/tustin/codes/code_of_ordinances

LSA, 2022. Noise and Vibration Impact Analysis (Appendix I)

5.14. 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)?	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>	<input type="checkbox"/>
b) Displace substantial numbers of existing people or housing, necessitating the construction of replacement housing elsewhere?	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>

- a. Induce substantial unplanned population growth in an area, either directly or indirectly?

Less than Significant Impact. The California Department of Finance (CDF) data details that the City of Tustin has a residential population of 79,535 and 28,321 housing units in 2022. In addition, it is estimated that the City has an average of 2.89 persons per household. The Project would remove the existing office buildings and construct 18 duplexes and four single-family residences, for a total of 40 residential units.

Based on this information, the proposed 40 residential units would result in an increase of approximately 116 new residents. The 2020-2045 SCAG Regional Transportation Plan/Sustainable Communities Strategy (RTP/SCS) assumed the population within the City of Tustin to grow from 82,100 in 2016 to 92,600 in 2045 (approximately 13 percent). The addition of 116 new residents would represent a population increase of 0.1 percent and the new housing units would result in a 0.1 percent increase in residential units within the City. As the Project consists of redevelopment of a site that would generate less than one-half percent growth, potential impacts related to substantial unplanned population growth would be less than significant.

Additionally, the proposed Project is located in an urbanized residential area of the City that is already served by existing roadways and infrastructure systems. No infrastructure would be extended to serve areas beyond the Project site, and indirect impacts related to growth would not occur from implementation of the proposed Project. Therefore, potential impacts related to inducement of unplanned population growth, either directly or indirectly, would be less than significant.

- b. Displace substantial numbers of existing people or housing, necessitating the construction of replacement housing elsewhere?

No Impact. The Project site is currently developed with two office buildings and does not contain any housing. The Project would redevelop the site to construct 18 duplexes and four single-family residences, for a total of 40 residential units. No people or housing would be displaced by implementation of the proposed Project. Conversely, housing would be developed by the Project. Thus, no impact would occur.

Existing Plans, Programs, or Policies

None.

Mitigation Measures

None.

Sources

California Department of Finance. 2022. E-5 Population and Housing Estimates for Cities, Counties, and the State, January 2021-2022, with 2020 Benchmark. Accessed: <https://dof.ca.gov/forecasting/demographics/estimates/e-5-population-and-housing-estimates-for-cities-counties-and-the-state-2020-2022/>

5.15. PUBLIC SERVICES

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

	Potentially Significant Impact	Less Than Significant with Mitigation Incorporated	Less Than Significant Impact	No Impact
i. Fire protection?	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>	<input type="checkbox"/>
ii. Police protection?	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>	<input type="checkbox"/>
iii. Schools?	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>	<input type="checkbox"/>
iv. Parks?	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>	<input type="checkbox"/>
v. Other public facilities?	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>	<input type="checkbox"/>

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

- i. Fire protection?
- ii. Police protection?
- iii. Schools?
- iv. Parks?
- v. Other public facilities?

Fire Protection – Less than Significant Impact. Fire Services for Tustin are provided by Orange County Fire Authority (OCFA). OCFA operates three fire stations throughout the City of Tustin, described below:

- OCFA Fire Station #21 is closest to the Project site. It is located at 1241 Irvine Boulevard., which is 0.76-mile from the Project site.

- OCFA Fire Station #37 is located 2.32 miles from the Project site at 15011 Kensington Park Drive.
- OCFA Fire Station #43 is located 2.88 miles from the Project site at 11490 Pioneer Way.

The proposed Project would remove the existing office buildings and develop 18 duplexes and four single-family residences, for a total of 40 residential units. Implementation of the Project would be required to adhere to the California Fire Code, as included in the City's Municipal Code Section 8100, as part of the permitting process the Project plans would be reviewed by the City's Building Division to ensure that the Project plans meet the fire protection requirements.

Due to the small increase in onsite people that would occur from implementation of the Project, an incremental increase in demand for fire protection and emergency medical services would occur. However, the increase in residents onsite is limited (estimated 116 residents) and would not increase demands such that the existing three fire stations would not be able to accommodate servicing the Project in addition to its existing commitments. Provision of a new or physically altered fire station would not be required that could cause environmental impacts. Therefore, impacts related to fire protection services from the proposed Project would be less than significant.

Police Protection – Less than Significant Impact. The City of Tustin Police Department is located at 300 Centennial Way, which is 0.32 mile from the Project site. The Police Department staffing consists of 100 sworn officers and 55 Civilian Support Personnel. Based on the California DOF population data for the City in 2022 of 79,535, the City has approximately 1.26 sworn officers per 1,000 residents.

Development of the proposed 40 residential units would result in an incremental increase in demands on law enforcement services. However, the increase would not be significant when compared to the current demand levels. As described previously, the residential population of the Project site at full occupancy would be approximately 116 residents and based on the Police Department's staffing of 1.26 officers per thousand population, the proposed Project would require 0.27 percent of an additional officer.

Since the need by the Project is less than one full-time officer, the Project would not require the construction or expansion of the City's existing policing facilities. Thus, substantial adverse physical impacts associated with the provision of new or expanded facilities would not occur. Thus, impacts related to police services would be less than significant.

Schools – Less than Significant Impact. The Project site is located within the Tustin Unified School District. The Tustin Unified School District includes 16 Elementary Schools, two K-8 Schools, two Online Schools (K-12), four Middle Schools, one Legacy Magnet Academy, four High Schools, and one Adult Education School. The schools that would serve the Project are: Helen EStock Elementary School located at 14741 N B Street, which is 0.27 miles from the Project site; Columbus Tustin Middle School located at 17952 Beneta Way, which is 0.1 miles from the Project site; and Tustin High School located at 1171 El Camino Real, which is 0.78 miles from the Project site.

The Project would develop 18 duplexes and four single-family residences (40 units total). The State Office of Public School Construction utilizes a student yield factor of 0.7 students per dwelling unit. Using this factor, the proposed 40 residences could result in approximately 28 new students that would range in age from elementary through high school. Pursuant to Government Code Section 65995 et seq., the need for additional school facilities is addressed through compliance with school impact fee assessment. Senate Bill 50 (Chapter 407 of Statutes of 1998) sets forth a state school facilities construction program that includes restrictions on a local jurisdiction's ability to condition a project on mitigation of a project's impacts on school facilities in excess of fees set forth in the Government Code. These fees are collected by school districts at the time of issuance of building permits for development projects. Pursuant to Government Code Section 65995 applicants shall pay developer fees to the appropriate school districts at the time building permits are issued; and payment of the adopted fees provides full and complete mitigation of school impacts. As a result, impacts related to school facilities would be less than significant with the Government Code required fee payments.

Parks – Less than Significant Impact. The City of Tustin has over 100 acres of parks, activity buildings, and athletic facilities. The parks closest to the Project site include the following:

- Columbus Tustin Park located at 14712 Prospect Avenue, which is approximately 108 feet north from the Project site. This park is approximately 10 acres and contains the following facilities: Playground, tennis courts, baseball field/softball diamond, parking, picnic areas including shelters and tables, and restrooms.
- Peppertree Park located at 230 W First Street, which is 0.23 mile from the Project site. This park is approximately 6.7 acres and contains the following facilities: baseball/softball diamond, BBQs, bocce ball court, horseshoe pit, parking, picnic areas including shelters and tables, and restrooms.
- Pine Tree Park located at 1402 Bryan Ave, which is 0.83 miles from the Project site. This park is approximately 4 acres and contains the following facilities: volleyball court, playground, picnic areas, and restrooms.

The Project would develop 40 new residential units and 10,965 square feet of common open space recreation area on the site for use by residents. As described previously, The Project would result in approximately 116 residents. Residential uses are required to pay a park development fee. The City's Municipal Code Section 9331 provides parkland dedication requirements that are based on the number of dwelling units. Based on the Code's requirement of 0.0067 acres of parkland per dwelling unit, the Project would require 0.27 acres or 11,761.2 square feet of parkland dedication. Therefore, a majority of the Project's park demand would be met by the provision of the onsite recreation areas. In addition, as described previously, the City currently has over 100 acres of park facilities, including three parks within 1-mile of the Project site. Therefore, impacts related to the need to provide new or altered park and recreation facilities in order to maintain acceptable service ratios would be less than significant.

Other Facilities – Less than Significant Impact. The proposed Project would redevelop the Project site with 18 duplexes and four single-family residences (40 units total) within an area that already contains residential land uses. The additional residences would result in a limited incremental increase in the need for additional services, such as public

libraries and post offices, etc. Because the Project area is already served by other services and the Project would result in a limited increase in population, the Project would not result in the need for new or physically altered facilities to provide other services, the construction of which could cause significant environmental impacts. Therefore, impacts would be less than significant.

Existing Plans, Programs, or Policies

PPP PS-1: Schools Development Impact Fees. Prior to issuance of building permit, the Project shall pay applicable development fees levied by the Tustin Unified School District pursuant to the School Facilities Act (Senate Bill [SB] 50, Stats. 1998, c.407).

PPP PS-2: Park Fees. As a condition of the approval of a tentative map, the Project shall pay applicable park related fees pursuant to Municipal Code 9331.

Mitigation Measures

None.

Sources

City of Tustin Fire. Accessed: <https://www.tustinca.org/414/Fire>

City of Tustin Municipal Code. Accessed: https://library.municode.com/ca/tustin/codes/code_of_ordinances

City of Tustin Parks and Recreation. Parks Information. Accessed: <https://www.tustinca.org/715/Parks-Information>

City of Tustin Police. About Us. Accessed: <https://www.tustinca.org/169/Police>

Office of Public School Construction. 2009. State of California Enrollment Certification/Projection – School Facility Program. Accessed: <https://www.dgsapps.dgs.ca.gov/OPSC/ab1014/sab50-01instructions.pdf>.

Tustin Unified School District. Accessed: <https://www.tustin.k12.ca.us/>

5.16. RECREATION

Would the Project:	Potentially Significant Impact	Less Than Significant with Mitigation Incorporated	Less Than Significant Impact	No Impact
a) Would the project increase the use of existing neighborhood and regional parks or other recreational facilities such that substantial physical deterioration of the facility would occur or be accelerated?	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>	<input type="checkbox"/>
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?	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>	<input type="checkbox"/>

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

Less than Significant Impact. The Project would develop 40 residential units and 10,965 square feet of common open space recreation area on the site for use by residents. Therefore, some of the Project's park and recreational demand would be met by the provision of the onsite facilities. The City currently has over 100 acres of parkland, with three parks within one mile of the site. As described previously in the parks discussion, the Project would result in approximately 116 new residents. Due to the limited increase in population from implementation of the Project, provision of onsite open space and recreational facilities, and the amount of existing recreation facilities near the site, impacts related to the increase in the use of existing parks and recreational facilities, such that physical deterioration of the facility would be accelerated would be less than significant.

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

Less than Significant Impact. As described above, the Project includes 10,965 square feet of open space recreation area. The impacts of development of the park open space recreation area are considered part of the impacts of the proposed Project as a whole and are analyzed throughout the various sections of this MND. For example, activities such as excavation, grading, and construction as required for the recreation area are

analyzed in the Air Quality, Greenhouse Gas Emissions, Noise, and Transportation Sections.

In addition, while the Project would contribute park development fees pursuant to Municipal Code 9331 (included as PPP PS-2) to be used towards the future expansion or maintenance parks and recreational facilities, these fees are standard with every residential development, and the proposed Project would not require the construction or expansion of other recreational facilities that might have an adverse physical effect on the environment. As a result, impacts would be less than significant.

Existing Plans, Programs, or Policies

None.

Mitigation Measures

None.

Sources

City of Tustin Municipal Code. Accessed:
https://library.municode.com/ca/tustin/codes/code_of_ordinances

5.17. TRANSPORTATION

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, roadway, bicycle, and pedestrian facilities?	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>	<input type="checkbox"/>
b) Conflict or be inconsistent with CEQA Guidelines § 15064.3, subdivision (b)?	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>	<input type="checkbox"/>
c) Substantially increase hazards due to a geometric design feature (e.g., sharp curves or dangerous intersections) or incompatible uses (e.g., farm equipment)?	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>	<input type="checkbox"/>
d) Result in inadequate emergency access?	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>

a. Conflict with a program, plan, ordinance, or policy addressing the circulation system, including transit, roadway, bicycle, and pedestrian facilities?

Less than Significant Impact. The proposed Project would develop the Project site with 40 residential units. The trip generation for the Project was calculated using trip rates from the Institute of Transportation Engineers (ITE), *Trip Generation 11th Edition*, 2021. As shown in Table T-1, the existing number of trips generated by existing uses of the Project site is 592. The Project would generate approximately 297 daily trips including 20 trips during the AM peak hour and 24 trips during the PM peak hour. This is 295 fewer daily trips than generated by the existing uses.

Table T-1: Project Trip Generation

			AM Peak Hour			PM Peak Hour		
Land Use	Units	Daily	In	Out	Total	In	Out	Total
Trip Rates								

Business Park ¹	TSF	12.44	1.15	0.20	1.35	0.32	0.90	1.22
Single-Family Detached Housing ²	DU	9.43	0.18	0.52	0.70	0.59	0.35	0.94
Single-Family Attached Housing ³	DU	7.20	0.15	0.33	0.48	0.32	0.25	0.57
Existing Trip Generation								
Existing Business Park	47,583 TSF	-592	-55	-10	-64	-15	-43	-58
Project Trip Generation								
Single-Family Detached Housing	4 DU	38	1	2	3	2	1	4
Single-Family Attached Housing	36 DU	259	5	12	17	12	9	21
Total Project Trip Generation		297	6	14	20	14	10	24
Net Trip Generation		-295	-49	4	-44	-1	-33	-34
TSF = Thousand Square Feet; DU = Dwelling Unit ¹ Trip rates from the Institute of Transportation Engineers, <i>Trip Generation, 11th Edition</i> , 2021, Land Use Code 770-Business Park. All Sites. ² Trip rates from the Institute of Transportation Engineers, <i>Trip Generation, 11th Edition</i> , 2021, Land Use Code 210-Single-Family Detached Housing. All Sites. ³ Trip rates from the Institute of Transportation Engineers, <i>Trip Generation, 11th Edition</i> , 2021, Land Use Code 215-Single-Family Detached Housing. All Sites. Source: VMT Screening Analysis, Appendix J								

Transit Services. The Orange County Transportation Authority (OCTA) operates 58 local bus routes through all cities in Orange County, including Tustin. Bus routes that run through the City include OCTA routes 22, 60, 65, 66, 71, 75, and 85 that serve major destinations in the region.

OCTA Route 64 and 71 are the closest to the Project site. Route 64 runs from the Westminster Mall Area east to Larwin Square. It operates Monday through Friday from 4:20 a.m. to 11:45 p.m. and on weekends from 5:00 a.m. to 11:00 p.m. with 20-minute headways. Route 71 runs from Hoag Hospital north to the Placentia Linda Hospital. It operates Monday through Friday from 5:33 a.m. to 10:18 p.m. and on weekends from 6:00 a.m. to 10:00 p.m. with one-hour headways. The nearest bus stop to the Project site is approximately 1,200 feet southwest, located at the intersection of First Street and Prospect Avenue, and is served by OCTA Route 64 and 71. These existing transit services would serve Project residents. The proposed 40 residential units would not alter

or conflict with existing transit stops and schedules, and impacts related to transit services would not occur.

Bicycle Circulation. The City of Tustin General Plan Figure C-5, Bikeway Master Plan, identifies a Class II bicycle lane along Prospect Avenue that runs adjacent to the Project site. Additionally, the plan identifies a potential future route through Columbus Tustin Park located across Irvine Boulevard from the Project site. The Project would not impact existing or planned facilities, including temporary or operational, direct or indirect, obstructions. There are no other existing or proposed bicycle facilities within or adjacent to the Project site. Thus, impacts related to existing bicycle program, plan, ordinance, or policies would not occur from the Project.

Pedestrian Facilities. The Project site is located in a developed urban area with sidewalks available along all nearby roadways. The proposed onsite roadway system includes sidewalks throughout the Project site that would connect to the offsite sidewalks. This would facilitate pedestrian use and walking to nearby locations. Therefore, the proposed Project would improve, and not conflict with, pedestrian facilities. Thus, impacts related to pedestrian facilities would not occur.

b. Conflict or be inconsistent with CEQA Guidelines § 15064.3, subdivision (b)?

Less than Significant Impact. Senate Bill (SB) 743 was signed by Governor Brown in 2013 and required the Governor's Office of Planning and Research (OPR) to amend the CEQA Guidelines to replace LOS for evaluating transportation impacts. SB 743 specified that the new criteria should promote the reduction of GHG emissions, the development of multimodal transportation networks and a diversity of land uses. In response, Section 15064.3 was added to the CEQA Guidelines that became effective on July 1, 2020 and requires that Vehicle Miles Traveled (VMT) be evaluated for impacts and provides lead agencies with the discretion to choose the most appropriate methodology and thresholds for its evaluation.

The City of Tustin has not yet adopted criteria for evaluating VMT impacts under CEQA, therefore, OPR's Technical Advisory on Evaluating Transportation Impacts In CEQA, December 2018, which provides guidelines for analysis of transportation impacts under CEQA, was used. The OPR guidelines state that small projects with less than 110 average net daily trips are generally exempt from having to analyze VMT. As shown in Table T-1, the Project would generate 295 fewer daily trips than the existing land use. Therefore, the Project would have a less than significant impact on VMT and no further analysis is required.

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

Less than Significant Impact. The Project would develop and operate 40 new residential units on the site. None of the proposed structures would include incompatible uses such as farm equipment. The Project would also not increase any hazards related to a design feature. The onsite drives would be developed in conformance with City design standards. The City's construction permitting process includes review of Project plans to ensure that no potentially hazardous transportation design features would be

introduced by the Project. For example, the design of the onsite circulation would be reviewed to ensure fire engine accessibility is provided to the fire code standards. Also, access to the Project site would be provided by a 27-foot-wide driveway along Irvine Boulevard that would be designed in compliance with the City's design standards to provide for adequate turning for passenger cars, fire trucks, and delivery trucks. As a result, impacts related to geometric design feature would be less than significant.

d. Result in inadequate emergency access?

No Impact. The proposed Project would develop and operate 40 residential units that would be permitted and approved in compliance with existing safety regulations, such as the California Building Code and Fire Code (as integrated into the City's Municipal Code) to ensure that it would not result in inadequate emergency access.

The proposed construction activities, including equipment and supply staging and storage, would occur within the Project site and would not restrict access of emergency vehicles to the Project site or adjacent areas. During construction, Irvine Boulevard would remain open to ensure adequate emergency access to the Project area and vicinity. Thus, impacts related to inadequate emergency access during construction activities would not occur.

As described above, operation of the proposed Project would also not result in inadequate emergency access. Direct access to the Project site would be provided from Irvine Boulevard. The driveways and on-site circulation constructed by the Project would be evaluated through the City's permitting procedures to meet the City's design standards that provides adequate turning space for passenger cars, fire trucks, and delivery trucks. The Project is also required to provide fire suppression facilities (e.g., hydrants and sprinklers). The OCFA would review the development plans as part of the plan check and permitting procedures to ensure adequate emergency access pursuant to the requirements in Section 503 of the California Fire Code (Title 24, California Code of Regulations, Part 9). As a result, impacts related to inadequate emergency access would not occur.

Existing Plans, Programs, or Policies

None.

Mitigation Measures

None.

Sources

Vehicle Miles Traveled (VMT) Screening Analysis, prepared by EPD Solutions, Inc., 2022. (Appendix J).

5.18. TRIBAL CULTURAL RESOURCES

a) Would the Project cause a substantial adverse change in the significance of a tribal cultural resource, defined in Public Resources Code Section 21074 as either a site, feature, place, cultural landscape that is geographically defined in terms of the size and scope of the landscape, sacred place, or object with cultural value to a California Native American tribe, and that is:	Potentially Significant Impact	Less Than Significant with Mitigation Incorporated	Less Than Significant Impact	No Impact
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)?	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>	<input type="checkbox"/>
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?	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>

AB 52 and SB 18 Requirements

The Project would be required to comply with AB 52 and SB 18 regarding tribal consultation. Chapter 532, Statutes of 2014 (i.e., AB 52), requires that Lead Agencies evaluate a project's potential to impact "tribal cultural resources." Such resources include sites, features, places, cultural landscapes, sacred places, and objects with cultural value to a California Native American tribe that are eligible for inclusion in the California Register or included in a local register of historical resources (PRC Section 21074). AB 52 also gives Lead Agencies the discretion to determine, supported by substantial evidence, whether a resource falling outside the definition stated above nonetheless qualifies as a "tribal cultural resource."

SB 18 requires cities and counties acting as Lead Agency to contact and consult with California Native American tribes before adopting or amending a General Plan. The intent of SB 18 is to establish meaningful consultation between tribal governments and local governments at the earliest possible point in the planning process and to enable tribes to manage "cultural places." Cultural places are defined as a Native American sanctified cemetery, place of worship, religious or ceremonial site, or sacred shrine (PRC Section

5097.9), or a Native American historic, cultural, or sacred site, that is listed or may be eligible for listing in the California Register, including any historic or prehistoric ruins, any burial ground, or any archaeological or historic site (PRC Section 5097.993).

In addition, as part of the Cultural Resources Study (BFSA 2022) a Sacred Lands File search was requested from the NAHC on April 4, 2022. The NAHC responded on May 16, 2022, stating that there are no known sacred lands within a 1-mile radius of the Project site, and requested that 15 Native American individuals be contacted for further information regarding the general area vicinity.

In compliance with the NAHC request, on May 17, 2022, letters were sent to all of the 15 Native American tribes that may have knowledge regarding tribal cultural resources in the Project area, which are:

- Campo Band of Diegueno Mission Indians
- Ewiiapaayp Band of Kumeyaay Indians
- Gabrieleno Band of Mission Indians - Kizh Nation
- Gabrieleno/Tongva San Gabriel Band of Mission Indians
- Gabrielino Tongva Indians of California Tribal Council
- Gabrielino/Tongva Nation
- Gabrielino-Tongva Tribe
- Juaneno Band of Mission Indians Acjachemen Nation - Belardes
- La Posta Band of Diegueno Mission Indians
- Manzanita Band of Kumeyaay Nation
- Mesa Grande Band of Diegueno Mission Indians
- Pala Band of Mission Indians
- Santa Rosa Band of Cahuilla Indians
- Soboba Band of Luiseno Indians
- Sycuan Band of the Kumeyaay Nation

One response was received on May 23, 2022, from the Gabrieleno Band of Mission Indians - Kizh Nation. Consultation with the tribe was conducted via email. Measures were provided by the tribe on August 26, 2022 to the City. The City and applicant accepted proposed measures on August 30, 2022 and consultation was closed. No other requests for consultation under AB 52 or SB 18 regarding the proposed Project were received by the City.

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

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

Less than Significant Impact. As detailed previously in Section 5.5, *Cultural Resources*, the Project site was used for agricultural purposes prior to its development for office uses in 1971. The Department of Parks and Recreation Primary Record form prepared for the Project details that the site does not meet any of the historic resource criteria and does not meet the definition of an historical resource pursuant to CEQA (DPR 2022).

In addition, the Cultural Resources Study (Appendix B) prepared for the Project included a search of the California Historical Resource Information System (CHRIS) at the South Central Coastal Information Center (SCCIC), located at California State University, Fullerton, and did not identify any historical resources as defined in Public Resources Code section 5020.1(k) on the Project site. Furthermore, the Sacred Lands File search completed by the NAHC stated that there are no known sacred lands within a 1-mile radius of the Project site. Therefore, no substantial evidence exists that tribal cultural resources are present in the Project site, and potential impacts would be less than significant.

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

Less than Significant with Mitigation Incorporated. The Geotechnical Investigation describes that the site locally underlain by alluvial soils that is locally overlain by artificial fill. Project construction would require the trenching and excavation of soils of approximately five feet below grade. Based on the site soils and excavation depths, there is a limited potential for the Project to impact tribal cultural resources.

However, pursuant to consultation with the Gabrielino Band of Mission Indians – Kizh Nation Tribe, Mitigation Measures TCR-1 through TCR-3 have been included to require tribal monitoring, to prescribe activities should any inadvertent discoveries of tribal cultural resources be unearthed by project construction activities, and to prescribe activities should any human remains or funerary remains be discovered during project construction. Mitigation Measure TCR-1 through TCR-3 would reduce potential impacts to tribal cultural resources to a less than significant level.

Additionally, as described previously and included as PPP CUL-1, California Health and Safety Code, Section 7050.5 requires that if human remains are discovered in the Project site, disturbance of the site shall halt and remain halted until the coroner has conducted an investigation. If the coroner determines that the remains are those of a Native American, he or she shall contact, by telephone within 24 hours, the Native American Heritage Commission. Therefore, with implementation of Mitigation Measures TCR-1 through TCR-3 and the existing regulations, impacts to TCRs would be less than significant.

Existing Plans, Programs, or Policies

PPP CUL-1: Human Remains. Listed previously in Section 5.5, *Cultural Resources*.

Mitigation Measures

Mitigation Measure TCR-1 Retain a Native American Monitor Prior to Commencement of Ground-Disturbing Activities.

A. The project applicant/lead agency shall retain a Native American Monitor from or approved by the Gabrieleño Band of Mission Indians – Kizh Nation. The monitor shall be retained prior to the commencement of any “ground-disturbing activity” for the subject project at all project locations (i.e., both on-site and any off-site locations that are included in the project description/definition and/or required in connection with the project, such as public improvement work). “Ground-disturbing activity” shall include, but is not limited to, demolition, pavement removal, potholing, auguring, grubbing, tree removal, boring, grading, excavation, drilling, and trenching.

B. A copy of the executed monitoring agreement shall be submitted to the lead agency prior to the earlier of the commencement of any ground-disturbing activity, or the issuance of any permit necessary to commence a ground-disturbing activity.

C. The monitor will complete daily monitoring logs that will provide descriptions of the relevant ground-disturbing activities, the type of construction activities performed, locations of ground-disturbing activities, soil types, cultural-related materials, and any other facts, conditions, materials, or discoveries of significance to the Tribe. Monitor logs will identify and describe any discovered TCRs, including but not limited to, Native American cultural and historical artifacts, remains, places of significance, etc., (collectively, tribal cultural resources, or “TCR”), as well as any discovered Native American (ancestral) human remains and burial goods. Copies of monitor logs will be provided to the project applicant/lead agency upon written request to the Tribe.

D. On-site tribal monitoring shall conclude upon the latter of the following (1) written confirmation to the Kizh from a designated point of contact for the project applicant/lead agency that all ground-disturbing activities and phases that may involve ground-disturbing activities on the project site or in connection with the project are complete; or (2) a determination and written notification by the Kizh to the project applicant/lead agency that no future, planned construction activity and/or development/construction phase at the project site possesses the potential to impact Kizh TCRs.

E. Upon discovery of any TCRs, all construction activities in the immediate vicinity of the discovery shall cease (i.e., not less than the surrounding 50 feet) and shall not resume until the discovered TCR has been fully assessed by the Kizh monitor and/or Kizh archaeologist. The Kizh will recover and retain all discovered TCRs in the form and/or manner the Tribe deems appropriate, in the Tribe’s sole discretion, and for any purpose the Tribe deems appropriate, including for educational, cultural and/or historic purposes.

Mitigation Measure TCR-2 Unanticipated Discovery of Human Remains and Associated Funerary Objects

A. Native American human remains are defined in PRC 5097.98 (d)(1) as an inhumation or cremation, and in any state of decomposition or skeletal completeness. Funerary objects, called associated grave goods in Public Resources Code Section 5097.98, are also to be treated according to this statute.

- B. If Native American human remains and/or grave goods discovered or recognized on the project site, then all construction activities shall immediately cease. Health and Safety Code Section 7050.5 dictates that any discoveries of human skeletal material shall be immediately reported to the County Coroner and all ground-disturbing activities shall immediately halt and shall remain halted until the coroner has determined the nature of the remains. If the coroner recognizes the human remains to be those of a Native American or has reason to believe they are Native American, he or she shall contact, by telephone within 24 hours, the Native American Heritage Commission, and Public Resources Code Section 5097.98 shall be followed.
- C. Human remains and grave/burial goods shall be treated alike per California Public Resources Code section 5097.98(d)(1) and (2).
- D. Construction activities may resume in other parts of the project site at a minimum of 200 feet away from discovered human remains and/or burial goods, if the Kizh determines in its sole discretion that resuming construction activities at that distance is acceptable and provides the project manager express consent of that determination (along with any other mitigation measures the Kizh monitor and/or archaeologist deems necessary). (CEQA Guidelines Section 15064.5(f).)
- E. Preservation in place (i.e., avoidance) is the preferred manner of treatment for discovered human remains and/or burial goods. Any historic archaeological material that is not Native American in origin (non-TCR) shall be curated at a public, non-profit institution with a research interest in the materials, such as the Natural History Museum of Los Angeles County or the Fowler Museum, if such an institution agrees to accept the material. If no institution accepts the archaeological material, it shall be offered to a local school or historical society in the area for educational purposes.
- F. Any discovery of human remains/burial goods shall be kept confidential to prevent further disturbance.

Mitigation Measure TCR-3 Procedures for Burials and Funerary Remains

- A. As the Most Likely Descendant ("MLD"), the Koo-nas-gna Burial Policy shall be implemented. To the Tribe, the term "human remains" encompasses more than human bones. In ancient as well as historic times, Tribal Traditions included, but were not limited to, the preparation of the soil for burial, the burial of funerary objects with the deceased, and the ceremonial burning of human remains.
- B. If the discovery of human remains includes four or more burials, the discovery location shall be treated as a cemetery and a separate treatment plan shall be created.
- C. The prepared soil and cremation soils are to be treated in the same manner as bone fragments that remain intact. Associated funerary objects are objects that, as part of the death rite or ceremony of a culture, are reasonably believed to have been placed with individual human remains either at the time of death or later; other items made exclusively for burial purposes or to contain human remains can also be considered as associated funerary objects. Cremations will either be removed in bulk or by means as necessary to ensure complete recovery of all sacred materials.
- D. In the case where discovered human remains cannot be fully documented and recovered on the same day, the remains will be covered with muslin cloth and a steel plate that can be moved by heavy equipment placed over the excavation opening to protect the remains. If this type of steel plate is not available, a 24-hour guard should be

posted outside of working hours. The Tribe will make every effort to recommend diverting the project and keeping the remains in situ and protected. If the project cannot be diverted, it may be determined that burials will be removed.

E. In the event preservation in place is not possible despite good faith efforts by the project applicant/developer and/or landowner, before ground-disturbing activities may resume on the project site, the landowner shall arrange a designated site location within the footprint of the project for the respectful reburial of the human remains and/or ceremonial objects.

F. Each occurrence of human remains and associated funerary objects will be stored using opaque cloth bags. All human remains, funerary objects, sacred objects and objects of cultural patrimony will be removed to a secure container on site if possible. These items should be retained and reburied within six months of recovery. The site of reburial/repatriation shall be on the project site but at a location agreed upon between the Tribe and the landowner at a site to be protected in perpetuity. There shall be no publicity regarding any cultural materials recovered.

The Tribe will work closely with the project's qualified archaeologist to ensure that the excavation is treated carefully, ethically and respectfully. If data recovery is approved by the Tribe, documentation shall be prepared and shall include (at a minimum) detailed descriptive notes and sketches. All data recovery data recovery-related forms of documentation shall be approved in advance by the Tribe. If any data recovery is performed, once complete, a final report shall be submitted to the Tribe and the NAHC. The Tribe does NOT authorize any scientific study or the utilization of any invasive and/or destructive diagnostics on human remains.

Sources

Cultural Resources Study, prepared by Brian F. Smith and Associates, 2022 (BFSA 2022), (Appendix B).

Geotechnical and Infiltration Evaluation, prepared by GeoTek, Inc., 2021. (GeoTek 2021) (Appendix D).

5.19. 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, stormwater drainage, electric power, natural gas, or telecommunications facilities, the construction or relocation of which could cause significant environmental effects?	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>	<input type="checkbox"/>
b) Have sufficient water supplies available to serve the project and reasonably foreseeable future development during normal, dry and multiple dry years?	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>	<input type="checkbox"/>
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?	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>
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?	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>	<input type="checkbox"/>
e) Comply with federal, state, and local management and reduction statutes and regulations related to solid waste?	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>

- a. **Require or result in the relocation or construction of new or expanded water, wastewater treatment, stormwater drainage, electric power, natural gas, or telecommunications facilities, the construction or relocation of which could cause significant environmental effects?**

Less than Significant Impact.

Water Infrastructure. The proposed Project would redevelop the Project site, which is currently served by the City's water infrastructure. An existing 8-inch water line in Irvine Boulevard currently provides water supplies to the Project site. The proposed Project would install new water lines on the Project site that would connect to the existing 8-inch water pipeline in Irvine Boulevard. The new onsite water system would convey water supplies to the proposed residences and landscaping through plumbing/landscaping fixtures that are compliant with the CALGreen Plumbing Code for efficient use of water.

The proposed Project would continue to receive water supplies through the existing 8-inch water lines located within the Irvine Boulevard right-of-way that have the capacity to provide the increased water supplies needed to serve the proposed Project, and no expansions of the water pipelines that convey water to the Project site would be required. Installation of the new water distribution lines would only serve the proposed Project and would not provide new water supplies to any off-site areas.

The construction activities related to the onsite water infrastructure that would be needed to serve the proposed residences are included as part of the proposed Project and would not result in any physical environmental effects beyond those identified throughout this MND. For example, analysis of construction emissions for excavation and installation of the water infrastructure is included in Sections 5.3, *Air Quality* and 5.8, *Greenhouse Gas Emissions*. Therefore, the proposed Project would not result in the construction of new water facilities or expansion of existing facilities, the construction of which could cause significant environmental effects, and impacts would be less than significant.

Wastewater Infrastructure. The Project site is currently served by the existing 8-inch sewer line within Irvine Boulevard. The Project includes installation of onsite sewer lines that would connect to the existing 8-inch sewer line in Irvine Boulevard.

The construction activities related to installation of the onsite sewer infrastructure that would serve the proposed Project, is included as part of the proposed Project and would not result in any physical environmental effects beyond those identified throughout this MND. For example, analysis of construction emissions for excavation and installation of the sewer infrastructure is included in Section 5.3, *Air Quality* and 5.8, *Greenhouse Gas Emissions*, and noise volumes from these activities are evaluated in Section 5.13, *Noise*. As the proposed Project includes facilities to serve the proposed development, it would not result in the need for construction of other new wastewater facilities or expansions, the construction of which could cause significant environmental effects. Therefore, impacts would be less than significant.

Stormwater Drainage. The Project would install storm drain catch basins throughout the Project site to capture and infiltrate stormwater runoff. The construction activities related to installation of the onsite storm water infrastructure that would serve the proposed Project, is included as part of the proposed Project, and would not result in any physical

environmental effects beyond those identified throughout this MND. As the proposed Project includes facilities to serve the proposed development, it would not result in the need for construction of other new stormwater facilities or expansions, the construction of which could cause significant environmental effects. Therefore, impacts would be less than significant.

Electricity, Natural Gas, & Telecommunications. Electric power, natural gas, and telecommunications facilities are in place to serve the Project without the need for construction or relocation of utility facilities. The Project would connect to the existing Southern California Edison electrical distribution facilities that are adjacent to the Project site and would not require the construction of new electrical facilities. Additionally, the Project would connect to the existing Southern California Gas natural gas distribution facilities that are adjacent to the Project site. As such, the Project would not result in the need for construction of other new electricity, natural gas, or telecommunications facilities or expansions, the construction of which could cause significant environmental effects. Therefore, impacts would be less than significant.

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

Less than Significant Impact. According to the City of Tustin 2020 UWMP, the City receives imported potable water from Municipal Water District of Orange County (MWDOC), obtained through East Orange County Water District (EOCWD), and local groundwater from the Orange County Groundwater Basin (OC Basin), which is managed by the Orange County Water District (OCWD) (UWMP 2020). In 2020, the City's actual water supply totaled 10,447 acre-feet (af), which included 7,034 af of untreated groundwater and 3,038 af desalinated groundwater from OC Basin, and 375 af of imported water from MWDOC/EOCWD.

The UWMP projects that by 2045, the water supply mix will shift to 85% groundwater and 15% imported water. The City's water demand in 2021 was 10,374 af and is projected to decrease to 10,081 af by 2025 (UWMP 2020).

The UWMP details that in 2020, the water usage in the City for was 95 gallons per day per capita, which is below its 2020 target of 151 gallons per day per capita. To provide a conservative estimate of Project water use, a generation rate of 151 gallons per capita per day was used to estimate water demand from the proposed Project. As described in Section 5.14, *Population and Housing*, the proposed 40 residential units are anticipated to result in approximately 116 new residents. Based on the UWMP water estimates, the Project would result in a water demand of 17,516 gallons per day (19.63 acre-feet per year). The Project's demand of 19.63 acre-feet equates to 0.18 percent of the anticipated increase in water demand. This does not include the reduction in demand from the existing office/business park use; and thus, is a conservative estimate. Based on the City's UWMP supply and demand data and the limited increase in water demand from the proposed Project, the City would have water supplies available to serve the project. In addition, the Project would limit water use by inclusion of low-flow plumbing and irrigation fixtures, pursuant to the California Title 24 requirements. Therefore, the proposed Project would have sufficient water supplies available to serve the Project, and impacts would be less than significant.

- 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?**

Impact. Orange County Sanitation District operates and maintains sewer collection pipes in the Project area that feed into Orange County Sanitation District's trunk sewers that convey wastewater to treatment plants in Fountain Valley (Plant No. 1) and Huntington Beach (Plant No. 2). Plant No. 1 has a total rated primary capacity of 108 MGD and a secondary treatment capacity of 80 MGD. Plant No. 2 has a rated primary capacity of 168 MGD and secondary treatment capacity of 90 MGD (EOCWD 2020).

According to the Orange County Sanitation District Cost of Service Study, it is estimated that a residential project with 40 units would have an equivalent dwelling unit (EDU) or 0.7 uses generate approximately 206 gallons per day (gpd) per unit. Based on this estimate, the proposed Project would generate approximately 5,768 gallons per day (GPD). The project's wastewater generation per day is within the capacity of the two wastewater treatment plants that serve the Project site. Therefore, impacts related to wastewater treatment capacity would be less than significant.

- 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?**

Less than Significant Impact. The City contracts for residential refuse collection and solid waste materials are transported to a Materials Recovery Facility where it is sorted for recyclables. The County of Orange owns and operates the Frank R. Bowerman Sanitary Landfill, located at 11002 Bee Canyon Access Road in Irvine, which serves Tustin. The Bowerman Sanitary Landfill is permitted to accept 11,500 tons per day of solid waste and is permitted to operate through 2053. In April 2022, a maximum of 8,377 tons in a day was disposed at the Bowerman Sanitary Landfill, which provides for a remaining capacity of 3,123 tons per day (CalRecycle 2022).

Construction

Project construction would generate solid waste for landfill disposal in the form of demolition debris from the existing building and infrastructure that would be removed from the site. Demolition waste would be properly characterized as required by law and recycled or disposed of at an appropriate type of landfill for such materials. Construction waste in the form of packaging and discarded materials would also be generated by the proposed project. Utilizing a construction waste factor of 4.34 pounds per square foot (EPA 2003), demolition of the 47,583 square foot business park would generate approximately 103.25 tons of waste during demolition and additional waste during construction. However, Section 5.408.1 of the 2019 California Green Building Standards Code requires demolition and construction activities to recycle or reuse a minimum of 65 percent of the nonhazardous construction and demolition waste. Thus, the demolition and construction solid waste that would be disposed of at the landfill would be approximately 35 percent of the waste generated. Therefore, demolition activities, which would generate the most solid waste, would generate approximately 36.14 tons of solid waste. Demolition activities would occur over 20 working days period. This equates to approximately 1.8 tons of debris per day.

As described above, the Frank Bowerman Sanitary Landfill had additional capacity of approximately 3,123 tons per day. Therefore, the facility would be able to accommodate the addition of 1.8 tons of waste per day during demolition of the proposed Project, and impacts would be less than significant.

Operation

The CalEEMod solid waste generation rate for single-family housing is 1.06 tons per year and 8.93 tons per year for condo/townhouse uses. The Project proposes construction of 18 duplexes and four single family residences. Thus, operation of the Project would generate approximately 164.98 tons of solid waste per year; or 3.17 tons per week. However, at least 75 percent of the solid waste is required by AB 341 to be recycled, which would reduce the volume of landfilled solid waste to approximately 0.79 tons per week or 1,747.16 pounds per week. As the Frank Bowerman Sanitary Landfill has additional capacity of approximately 3,001 tons per day, the solid waste generated by the Project would be within the capacity of the landfill. Thus, the proposed Project would be served by a landfill with sufficient permitted capacity to accommodate the Project's solid waste disposal needs and the Project would not impair the attainment of solid waste reduction goals. Impacts related to landfill capacity would be less than significant.

e. Comply with federal, state, and local management and reduction statutes and regulations related to solid waste?

No Impact. The proposed Project would result in new development that would generate an increased amount of solid waste during Project construction and operation. All solid waste-generating activities within the City is subject to the requirements set forth in Section 5.408.1 of the 2019 California Green Building Standards Code that requires demolition and construction activities to recycle or reuse a minimum of 65 percent of the nonhazardous construction and demolition waste, and AB 341 that requires diversion of a minimum of 75 percent of operational solid waste. Additionally, the City implements the requirements established through SB 1383, which requires cities to divert 75 percent of organic solid waste from landfills through recycling services by 2025. Implementation of the proposed Project would be consistent with all state regulations, as ensured through the City's development Project permitting process. Therefore, the proposed Project would comply with all solid waste statute and regulations; and impacts would not occur.

Existing Plans, Programs, or Policies

PPP UT-1: Solid Waste. As required by Section 5.408.1 of the 2019 California Green Building Standards Code, and AB 341 the Project shall implement a Waste Management Plan to ensure that the construction and operational diversion requirements would be met.

PPP UT-2: Organic Waste Disposal. As required by SB 1383, organic waste, including yard trimmings and food waste, will be diverted from landfills through City organic waste recycling services.

Mitigation Measures

None.

Sources

Arcadis U.S. Inc., 2021. City of Tustin Urban Water Management Plan. Available at <https://www.tustinca.org/DocumentCenter/View/5138/Tustin-2020-UWMP>

California Emissions Estimator Model (CalEEMod) Default Data Tables. Table 5.13.1 Operational Waste Generation. (Appendix A).

CalRecycle. 2022. SWIS Facility/Site Activity Details Frank R. Bowerman Sanitary LF (30-AB-0360). Accessed: <https://www2.calrecycle.ca.gov/SolidWaste/SiteActivity/Details/2767?siteID=2103>

Orange County Sanitation District. 2017. Orange County Sanitation District Cost of Service Study. <https://www.ocsan.gov/home/showpublisheddocument/23431/636537053338700000>

5.20. WILDFIRE

	Potential ly Significa nt Impact	Less Than Significant with Mitigation Incorporat ed	Less Than Significa nt Impact	No Impact
If located in or near state responsibility areas or lands classified as very high fire hazard severity zones, would the Project:				
a) Substantially impair an adopted emergency response plan or emergency evacuation plan?	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>
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?	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>
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?	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>
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?	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>

a. Substantially impair an adopted emergency response plan or emergency evacuation plan?

No Impact. According to the California Fire Hazard Severity Zones mapping, the Project site is not within a Very High Fire Hazard Zone. Direct access to the project site would be provided from a 27-foot-wide driveway along Irvine Boulevard. The Project is required to design and construct internal access and provide fire suppression facilities (e.g., hydrants and sprinklers) in conformance with the City's Municipal Code, and the Fire Department would review the development plans prior to approval to ensure adequate emergency access pursuant to the requirements in Section 503 of the California Fire Code (Title 24, California Code of Regulations, Part 9, included in the City's Municipal Code (Chapter 8100, Building and Construction Codes Adopted by

Reference)). As a result, the proposed Project would not impair an adopted emergency response plan or emergency evacuation plan and impacts not occur.

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?

No Impact. No Impact. As described in the previous response, the Project site is not located within a Very High Fire Hazard Severity Zone. The Project site is relatively flat with less than five feet of elevation differential across the property. The areas within the Project's vicinity also do not contain hillsides or other factors that could exacerbate wildfire risks. Therefore, no impact would occur.

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?

No Impact. As described in the previous responses, the Project site is not within a Very High Fire Hazard Severity Zone. The Project site is located within an urbanized area within the City of Tustin. The Project does not involve any new infrastructure (such as roads, fuel breaks, emergency water sources, power lines or other utilities) that may exacerbate fire risks or result in other impacts to the environment. Therefore, no impacts would occur.

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?

No Impact. As described in the previous responses, the Project site is not within a Very High Fire Hazard Severity Zone. The Project site is relatively flat with less than five feet of elevation differential across the property. Likewise, areas adjacent to the Project site are relatively flat urban sites that do not contain hillsides or other factors that would expose people or structures to flooding or landslides as a result of runoff, post-fire slope instability, or drainage changes. The Project would not generate slopes and would connect to existing drainage facilities. Thus, the Project would not result in risks related to wildfires or risks related to downslope or downstream flooding or landslides after wildfires. Therefore, impacts would not occur.

Existing Plans, Programs, or Policies

None.

Mitigation Measures

None.

Sources

California Department of Forestry and Fire Protection (CAL FIRE). 2020. Fire Hazard Severity Zone Map. Accessed:

5.21. MANDATORY FINDINGS OF SIGNIFICANCE
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	Potential ly Significa nt Impact	Less Than Significant with Mitigation Incorporate d	Less Than Significa nt 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?	<input type="checkbox"/>	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
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)?	<input type="checkbox"/>	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
c) Does the project have environmental effects which will cause substantial adverse effects on human beings, either directly or indirectly?	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>	<input type="checkbox"/>
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?				

No Impact. As discussed in Section 5.4, the Project site is currently developed and does not contain habitat of a fish or wildlife species. However, the Project site contains existing

ornamental trees that could be used for nesting by common bird species that are protected by the federal Migratory Bird Treaty Act (MBTA) and the California Fish and Game Code Sections 3503.5, 3511, and 3515 during the avian nesting and breeding season that occurs between February 1 and September 15. The provisions of the MBTA prohibits disturbing or destroying active nests. Therefore, Mitigation Measure BIO-1 has been included to require that if commencement of vegetation clearing occurs between February 1 and September 15, a qualified biologist shall conduct a nesting bird survey no more than 3 days prior to commencement of activities to confirm the absence of nesting birds. With implementation of Mitigation Measure BIO-1, potential impacts to nesting birds would be less than significant.

Additionally, as described in Section 5.5, the project site does not contain any buildings or structures that meet any of the California Register of Historical Resources (California Register) criteria or qualify as "historical resources" as defined by CEQA. Additionally, the Project site is not considered sensitive to archaeological resources. Therefore, the proposed project would not cause a substantial adverse change in the significance of a historical or archaeological resource.

Project grading and construction activities has the potential to encroach into native soils that have not been previously disturbed and could contain paleontological resources. Therefore, Mitigation Measure PAL-1 has been included to provide procedures to be followed in the unlikely event that potential paleontological resources are discovered during grading or excavation activities. Mitigation Measure PAL-1 requires that work shall cease within 50 feet of a find until a qualified paleontologist has evaluated the find in accordance with federal and state regulations. Mitigation Measure PAL-1 would reduce potential impacts to undiscovered paleontological resources to a less than significant level.

Therefore, the Project would result in a less than significant impact with mitigation on 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)?

Less than Significant with Mitigation Incorporated. The Project would develop the project site with 40 dwelling units, including 18 multi-family units and 4 single-family units. The project would provide land uses that are consistent with the adjacent residential and commercial uses. As presented in this document, potential Project-related impacts are either less than significant or would be less than significant with mitigation incorporated. Based on the analysis contained in this document, Project-related impacts would be reduced to less than significant levels with the incorporation of mitigation measures. Given that the potential project-related impacts would be mitigated to a less than

significant level, implementation of the proposed Project would not result in impacts that are cumulatively considerable when evaluated with the impacts of other current projects, or the effects of probable future projects. Therefore, the proposed project's contribution to any significant cumulative impacts would be less than cumulatively considerable. As discussed in Sections 5.1 through 5.20 of this document, mitigation would be required and incorporated as necessary. Therefore, impacts would be less than significant with mitigation incorporated.

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

Less Than Significant Impact. The project would develop the project site with 40 dwelling units, including 18 multi-family units and 4 single-family units. The project would provide land uses that are consistent with the adjacent residential and commercial uses. Based on the project description and the preceding responses in Sections 5.1 through 5.20 of this document, implementation of the proposed Project would not cause substantial adverse effects to human beings because all potentially significant impacts of the proposed project would be mitigated to a less than significant level. Therefore, since all potentially significant impacts of the proposed Project are expected to be mitigated to a less than significant level, implementation of the proposed Project would not cause substantial adverse effects on human beings.

End of document.