CEQA INITIAL STUDY
MITIGATED NEGATIVE DECLARATION

ORANGE COUNTY YOUTH TRANSITION CENTER JUVENILE HALL REPLACEMENT PROJECT
PLANNING APPLICATION (PA)
INITIAL STUDY/MITIGATED NEGATIVE DECLARATION
NO. PP24-0174

Prepared for:

County of Orange
OC Public Works
OC Facilities Design & Construction Management
601 North Ross Street
Santa Ana, California 92701

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December 2024

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Abbreviations and Acronyms

AAQS	ambient air quality standards
AB	Assembly Bill
ABC	Alcoholic Beverage Control
ACM	asbestos containing materials
ADA	Americans with Disabilities Act
ADT	average daily traffic
af	acre-foot/feet
AQMP	Air Quality Management Plan
Basin	South Coast Air Basin
bgs	below ground surface
BMPs	best management practices
BRA	Biological Resources Assessment
BTU	British Thermal Units
C&D	Construction & Demolition
CAL FIRE	California Department of Forestry and Fire Protection
CalEEMod	California Emissions Estimator Model
CALGreen Code	California Green Building Standards Code
California Register	California Register of Historical Resources
CalRecycle	California Department of Resources Recycling and Recovery
Caltrans	California Department of Transportation
Campus	Orange County Juvenile Hall Campus
CARB	California Air Resources Board
CBC	California Building Code
CCR	California Code of Regulations
CDFW	California Department of Fish and Wildlife
CEC	California Energy Commission
CEQA	California Environmental Quality Act
CFC	California Fire Code
CGS	California Geologic Survey
CH_4	methane
CHOC	Children's Hospital of Orange County

City	City of Orange
City TIA Guidelines	Traffic Impact Analysis Guidelines for Vehicle Miles Traveled and Level of Service Assessment
CIWMP	Countywide Integrated Waste Management Plan
CNDDB	California Natural Diversity Database
CNEL	Community Noise Equivalent Level
$CNEL_{existing}$	existing noise level
$CNEL_{future}$	future noise level
CO	carbon monoxide
CO_2	carbon dioxide
CO_2e	carbon dioxide equivalents
County	County of Orange
County VMT Guidelines	*Guidelines for Evaluating Vehicle Miles Traveled under CEQA*
CRC	Coordinated Re-Entry Center
CTE	Career Technical Education
CWA	Clean Water Act
DAMP	Drainage Area Management Plan
dB	decibels
dBA	A-weighted decibels
DOC	California Department of Conservation
DTSC	Department of Toxic Substances Control
EI	expansion index
EIR	Environmental Impact Report
EMFAC2021	California Emissions Factor Model, Version 2021
EO	Executive Order
EV	electric vehicle
EVCS	electric vehicle charging stations
FEMA	Federal Emergency Management Agency
FHSZ	fire hazard severity zones
Fire Department	Orange City Fire Department
FIRM	Flood Insurance Rate Map
FMMP	Farmland Mapping and Monitoring Program
FRAP	Fire and Resources Assessment Program

ft	foot/feet
FTA	Federal Transit Administration
FTA Manual	Federal Transit Administration's *Transit Noise and Vibration Impact Assessment Manual*
GHGs	greenhouse gases
gpd	gallons per day
Groundwater Discharge Permit	Permit for Discharges to Surface Waters That Pose an Insignificant (De Minimis) Threat to Water Quality
GWh	gigawatt hours
GWP	Global Warming Potential
HCOC	hydrologic condition of concern
HFCs	hydrofluorocarbons
HUD	U.S. Department of Housing and Urban Developments
HVAC	heating, ventilation, and air conditioning
I-5	Interstate 5
IESNA	Illuminating Engineering Society of North America Standards
in/sec	inches per second
IPaC	Information for Planning and Consultation
IS/MND	Initial Study/Mitigated Negative Declaration
kBTU	thousand British thermal units
kW	kilowatts
kWh	kilowatt hours
L_{dn}	day-night average noise level
LED	light-emitting diode
LEED	Leadership in Energy and Environmental Design
L_{eq}	equivalent continuous sound level
LID	Low Impact Development
LIP	Local Implementation Plan
LJC	Lamoreaux Juvenile Justice Center
L_{max}	maximum instantaneous noise level
LOS	level of service
LRA	Local Responsibility Area
LSTs	localized significance thresholds

LUST	Leaking Underground Storage Tank
Ma	million years ago
MBTA	Migratory Bird Treaty Act
MCE	Maximum Considered Earthquake
mg	milligram
mgd	million gallons per day
MLD	Most Likely Descendant
MM	Mitigation Measure
MMBtu	million British Thermal Units
MMRP	Mitigation Monitoring and Reporting Program
MOB	Manchester Office Building
MPAH	Master Plan of Arterial Highways
MRC	Multipurpose Rehabilitation Center
MRZs	Mineral Resource Zones
MS4s	Municipal Separate Storm Sewer Systems
MT	metric tons
MT CO_2e	metric tons of carbon dioxide equivalents
MT CO_2e/year	metric tons of carbon dioxide equivalents per year
MWDOC	Municipal Water District of Orange County
MWDSC	Metropolitan Water District of Southern California
N_2O	nitrous oxide
NAHC	Native American Heritage Commission
NAIMA	North American Innovation Manufacturers Association
National Register	National Register of Historic Places
NCCP/HCP	Natural Community Conservation Plan/Habitat Conservation Plan
NCCPs	Natural Community Conservation Plans
NESHAP	National Emission Standards for Hazardous Air Pollutants
NF_3	nitrogen trifluoride
NFPA	National Fire Protection Association
NHMLA	Natural History Museum of Los Angeles County
NHPA	National Historic Preservation Act
NO_2	nitrogen dioxide
NOA	naturally occurring asbestos

NOI	Notice of Intent
NO_X	nitrogen oxides
NPDES	National Pollutant Discharge Elimination System
O_3	ozone
OC Public Works	Orange County Public Works
OCFCD	Orange County Flood Control District
OCFD	Orange City Fire Department
OCSD	Orange County Sanitation District
OCTA	Orange County Transportation Authority
OCWD	Orange County Water District
OCWR	OC Waste and Recycling
OHP	Governor's Office of Historic Preservation
OHWM	ordinary high water marks
OSHA	Occupational Safety and Health Administration
Pb	lead
PF/I	Public Facilities and Institutions
PFCs	perfluorocarbons
P-I	Public Institution
PM_{10}	particulate matter less than 10 microns in size
$PM_{2.5}$	particulate matter less than 2.5 microns in size
ppm	parts per million
PPV	peak particle velocity
PRC	Public Resources Code
PRDs	Permit Registration Documents
PRIMP	Paleontological Resources Impact Mitigation Program
proposed project	Orange County Youth Transition Center Juvenile Hall Replacement Project
PS&E	Plans, Specifications, and Estimates
PV	photovoltaic
RCM	Regulatory Compliance Measure
RMS	root-mean-square
RRP Rule	Lead Safe Work Practice Requirements for Maintenance, Renovation or Remodeling
RTP/SCS	Regional Transportation Plan/Sustainable Communities Strategy

RWQCB	Regional Water Quality Control Board
SB	Senate Bill
SCAG	Southern California Association of Governments
SC	Standard Condition of Approval
SCAQMD	South Coast Air Quality Management District
SCE	Southern California Edison
SE	Siting Element
sf	square foot/feet
SF_6	sulfur hexafluoride
SLCP	short-lived climate pollutants
SLF	Sacred Lands File
SMARA	Surface Mining and Reclamation Act of 1974
SMARTs	Stormwater Multiple Application and Report Tracking System
SO_2	sulfur dioxide
SoCalGas	Southern California Gas Company
SO_X	sulfur oxides
SPR	Site Plan Review
SR-22	State Route 22
SR-91	State Route 91
SRA	Source Receptor Area, also State Responsibility Area
STC	Sound Transmission Class
SVP	Society of Vertebrate Paleontology
SWPPP	Stormwater Pollution Prevention Program
SWRCB	State Water Resource Control Board
TAY	Transitional Age Youth
TCA	Transportation Corridor Agencies
TCEs	Temporary Construction Easements
TGD	Technical Guidance Document
TI	tenant improvements
tpd	tons per day
UCI	University of California Irvine
USACE	United States Army Corps of Engineers
USDOT	United States Department of Transportation

USEPA	United States Environmental Protection Agency
USFWS	United States Fish and Wildlife Service
UWMP	Urban Water Management Plan
V	root-mean-square velocity amplitude
VdB	velocity in decibels
$V_{existing}$	existing volume
V_{future}	future volume
VHFHSZ	Very High Fire Hazard Severity Zone
VMT	vehicle miles travelled
VOC	volatile organic compounds
V_{ref}	reference velocity amplitude
WDID	Waste Discharge Identification Number
WDR	Waste Discharge Requirements
WM	Waste Management
Working Group	Greenhouse Gas California Environmental Quality Act Significance Threshold Working Group
WOTUS	waters of the United States
WQMP	Water Quality Management Plan
YGC	Youth Guidance Center
YLA	Youth Leadership Academy
YTC	Youth Transition Center

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Chapter 1: Introduction

The purpose of this Initial Study is to evaluate the potentially significant environmental impacts associated with implementing the proposed project. The Initial Study is organized into the following chapters:

- Chapter 1: Introduction
- Chapter 2: Environmental Determination
- Chapter 3: Project Description
- Chapter 4: Environmental Evaluation
- Chapter 5: Summary of Mitigation Measures and Project Design Features
- Chapter 6: References

1.1 Project Title

Orange County Youth Transition Center Juvenile Hall Replacement Project

1.2 Lead Agency Name | Address

Orange County Public Works
OC Facilities Design & Construction Management
601 N. Ross Street
Santa Ana, CA 92701

1.3 Lead Agency Contact Person | Telephone Number | Email

Richard de Jong, Senior Project Manager
Telephone: (714) 667-4966
Email: richard.dejong@ocpw.ocgov.com

1.4 Project Location

The proposed Orange County Youth Transition Center Juvenile Hall Replacement Project (proposed project) is located at 331 The City Drive South in the City of Orange (City) in the County of Orange (County).

Figure 3-1, Regional Location (provided in Chapter 3, Project Description), depicts the proposed project within the regional context while Figure 3-4, Existing Land Uses (Chapter 3), depicts the proposed project within a local context.

1.5 Project Sponsor's Name | Address

Orange County Public Works
OC Facilities Design & Construction Management
601 N. Ross Street
Santa Ana, CA 92701

1.6 General Plan | Specific Plan Designation(s)

City of Orange General Plan Land Use Designation: Public Facilities and Institutions (PF/I)

1.7 Zoning District(s)

City of Orange Zoning Designation: Public Institution (P-I)

1.8 Description of Project

The County of Orange Public Works (County) proposes to overhaul the existing Orange County Juvenile Hall Campus (Campus) located at 331 The City Drive South in the City of Orange, California, which occupies an approximately 17-acre property. The Orange County Juvenile Hall facility is an institution for juvenile law violators between the ages of 12 and 25 and is operated by the Orange County Probation Department. The Orange County Youth Transition Center Juvenile Hall Replacement Project (proposed project) would be constructed in three phases. Phase 1 of the proposed project would demolish and replace ten buildings and associated infrastructure and construct the new Youth Transition Center (YTC), including associated landscaping, hardscaping, accessibility, and utility improvements. Phase 2 consists of constructing new long-term housing, a new classroom and library building, and a Transitional Age Youth (TAY) housing unit. Phase 3 is still in the design phase but generally consists of constructing and installing tenant improvements to the remaining Campus buildings.

1.9 Surrounding Land Uses and Setting

The 17-acre property on which the Campus is located (the "project site") is part of a larger group of County facilities known as the Manchester Complex and is currently developed with the Juvenile Hall and the adjacent Youth Leadership Academy (YLA). The Youth Guidance Center (YGC) is located across the Santa Ana River Channel directly to the east of the project site. The project site is surrounded by the University of California Irvine (UC Irvine) Medical Center research hospital to the north, the Santa Ana River and Interstate 5 (I-5) to the east, the Orangewood Children's Home to the south, and the Lamoreaux Justice Center to the west.

1.10 Other Public Agencies Whose Approval is Required

Table 1.A below provides a list of required and anticipated public agency approvals that are associated with the proposed project.

Table 1.A: Public Agency Approvals

Body	Action
County of Orange	• Adoption of the California Environmental Quality Act (CEQA) Final Initial Study with Mitigated Negative Declaration (IS/MND) • Board of Supervisors Approval of Project Delivery and Construction Agreement Financing Program with State, Construction Agreement with State, Ground Lease, Right of Entry for Construction and Operation, Easement Agreement, Construction Contract, and Facility Sublease • Approval of Water Quality Management Plan (WQMP) • Approval of Plans, Specifications, and Estimates (PS&E) • Temporary Construction Easements (TCEs), if necessary
Santa Ana Regional Water Quality Control Board	• National Pollutant Discharge Elimination System (NPDES) Construction General Permit • NPDES MS4 Permit • Section 401 Water Quality Certification
Board of State and Community Corrections	• Cost, Plans, Specifications, and Estimates (PS&E), and Final Construction Plans
State Fire Marshal	• Plans and Specifications
City of Orange	• Fire Inspections – Site Access Only
Various Utility Companies	• Encroachment Permits • Easements

1.11 California Native American Consultation

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

Orange County Public Works (OC Public Works) mailed initial consultation notification letters on October 14, 2024, to the following California Native American Tribes pursuant to Assembly Bill (AB) 52:

- Gabrieleño Band of Mission Indians - Kizh Nation
- Juaneño Band of Mission Indians
- Gabrieleño Tongva San Gabriel Band of Mission Indians
- Soboba Band of Luiseño Indians

Tribal consultation is still ongoing. Refer to Section 4.22, Tribal Cultural Resources, of this IS/MND for further discussion.

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Chapter 2: Environmental Determination

Based on the analysis conducted in this Initial Study, the County of Orange, as the Lead Agency, has made the following determination:

Table 2.A: Environmental Determination

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 or agreed to by the project proponent. A **MITIGATED NEGATIVE DECLARATION** will be prepared.	☒
I find that the proposed project MAY have a significant effect on the environment, and an **ENVIRONMENTAL IMPACT REPORT** is required.	☐
I find that the proposed project MAY have a "potentially significant impact" or "potentially significant unless mitigated" impact on the environment, but at least one effect 1) has been adequately analyzed in an earlier document pursuant to applicable legal standards, and 2) has been addressed by mitigation measures based on the earlier analysis as described on attached sheets. An **ENVIRONMENTAL IMPACT REPORT** is required, but it must analyze only the effects that remain to be addressed.	☐
I find that although the proposed project could have a significant effect on the environment, because all potentially significant effects (a) have been analyzed adequately in an earlier **EIR** or **NEGATIVE DECLARATION** pursuant to applicable standards, and (b) have been avoided or mitigated pursuant to that earlier **EIR** or **NEGATIVE DECLARATION**, including revisions or mitigation measures that are imposed upon the proposed project, nothing further is required.	☐
I find that the proposed project has previously been analyzed as part of an earlier CEQA document (which either mitigated the project or adopted impacts pursuant to findings) adopted/certified pursuant to the *State CEQA Guidelines* and the County's adopted Local CEQA Guidelines. The proposed project is a component of the whole action analyzed in the previously adopted/certified CEQA document.	☐
I find that the proposed project has previously been analyzed as part of an earlier CEQA document (which either mitigated the project or adopted impacts pursuant to findings) adopted/certified pursuant to State and County CEQA Guidelines. Minor additions and/or clarifications are needed to make the previous documentation adequate to cover the project which are documented in this addendum to the earlier CEQA document (CEQA §15164).	☐
I find that the proposed project has previously been analyzed as part of an earlier CEQA document (which either mitigated the project or adopted impacts pursuant to findings) adopted/certified pursuant to State and County CEQA Guidelines. However, there is important new information and/or substantial changes have occurred requiring the preparation of an additional CEQA document (ND or EIR) pursuant to CEQA Guidelines Sections 15162 through 15163.	☐

DocuSigned by:
Virginia Gomez
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Signature

December 2, 2024

Date

Virginia Gomez, Senior Planner

Printed Name

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Chapter 3: Project Description

3.1 Introduction

The County proposes to overhaul the existing Orange County Juvenile Hall Campus (Campus) located at 331 The City Drive South in the City of Orange, California, which occupies an approximately 17-acre property. The Orange County Juvenile Hall facility is an institution for juvenile law violators between the ages of 12 and 25 and is operated by the Orange County Probation Department. The Orange County Youth Transition Center Juvenile Hall Replacement Project (proposed project) would be constructed in three phases. Phase 1 of the proposed project would demolish and replace ten buildings and associated infrastructure and construct the new Youth Transition Center (YTC), including associated landscaping, hardscaping, accessibility, and utility improvements. Phase 2 consists of constructing new long-term housing, a new classroom and library building, and an independent living unit. Phase 3 is still in the design phase but generally consists of constructing tenant improvements (TI) to the remaining Campus buildings.

3.2 Environmental Setting and Surrounding Land Uses

The 17-acre property (the "project site") is currently developed with the Juvenile Hall and the adjacent Youth Leadership Academy (YLA). The Youth Guidance Center (YGC) is located across the Santa Ana River channel directly to the east of the project site. The existing YGC facility offers sobriety education, substance abuse treatment, and transitional services for male and female youth. The YGC also offers academic and work experience programs, including culinary arts, auto detailing, facility laundry, basic housekeeping, building maintenance, carpentry, horticulture, and landscaping. The YLA was established in 2006 with two distinct programs, the Progressive Rehabilitation in a Dynamic Environment Program, and the Leadership Education through Active Development program. The existing Juvenile Hall includes an intake and release center, living units, an academic program, and medical services on site. While Juvenile Hall has a current rated capacity of 380 beds, the YLA currently includes an additional 108-bed camp facility, and the YGC consists of an additional 5-unit, 125-bed facility. The Campus also includes the recently completed Multipurpose Rehabilitation Center (MRC), which opened in 2022 and is located to the east of an existing recreational field on the Campus. The MRC provides classrooms, a multipurpose visitor room, two program rooms, an indoor gymnasium, outdoor hand ball courts, a fitness center, a visitor child play area, a kitchen, and other ancillary uses.

The current Campus is aging, and the number of youths assigned to the facility has declined. Therefore, the proposed YTC project intends to replace portions of the Campus. The YLA facility would remain functional throughout demolition and development of the proposed Project. The project site is bounded by I-5 and the Santa Ana River to the east, Service Way to the north, Justice Center Way to the south, and Hospital Frontage Road to the west. The project site is located within the City of Orange, which is bordered by the cities of Anaheim, Santa Ana, Garden Grove, and Villa Park, as well as unincorporated areas of Orange County. Figure 3-1, Regional Location, depicts the regional location of the project site.

According to the City of Orange General Plan Land Use Element (2010; Revised 2015), the project site is designated for Public Facilities and Institutions (PF/I) land use. Refer to Figure 3-2, General Plan Land Uses, for a visual depiction of the land use designations for the project site and its immediate vicinity. The PF/I land use provides for several types of public, quasi-public, and institutional land uses, including schools, colleges and universities, City and County facilities, hospitals, and major utility easements and properties.

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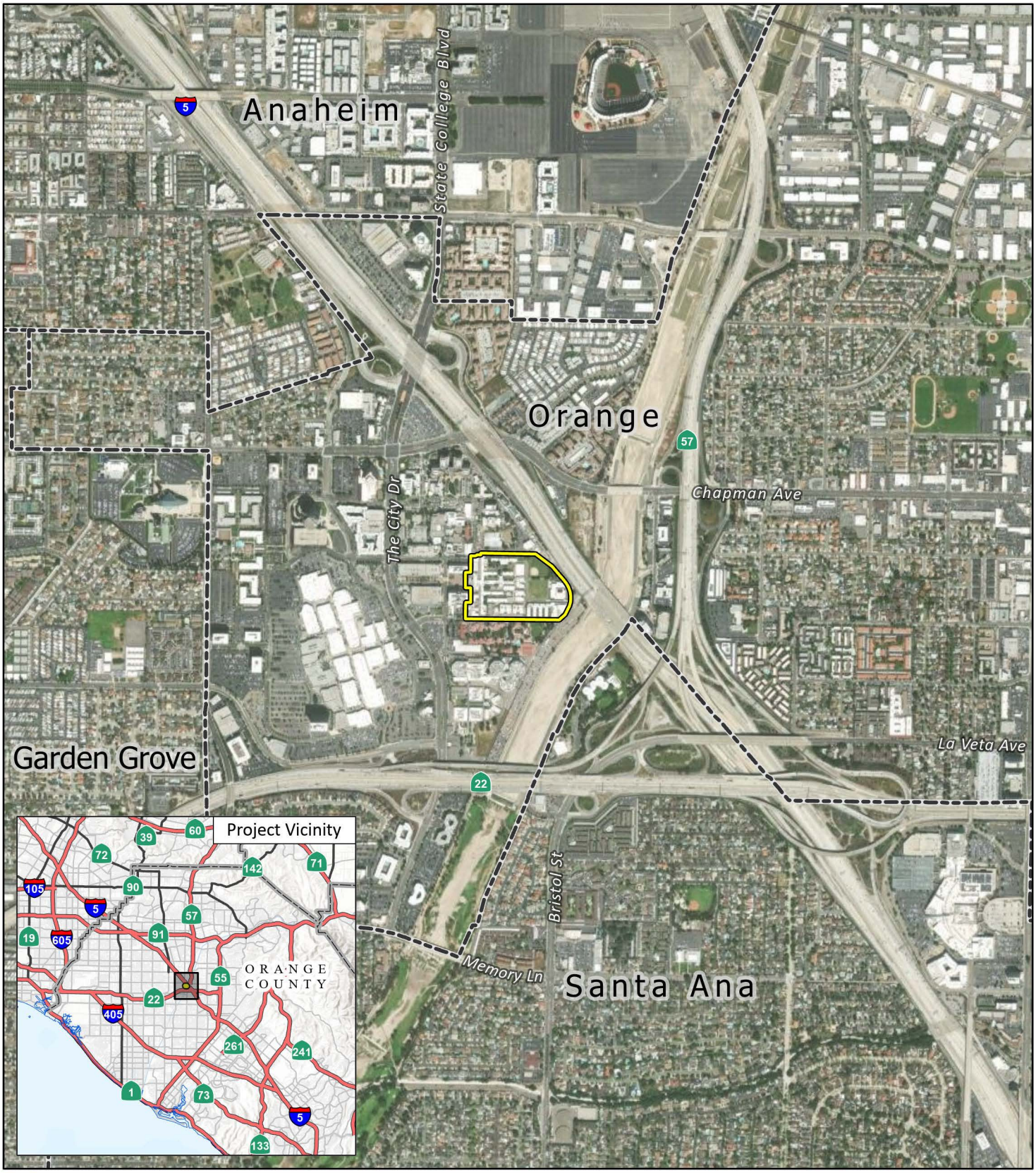

LSA

Project Site

City Boundary

FIGURE 3-1

N

0 750 1500

FEET

SOURCE: Esri Imagery (January 29, 2024)

Orange County Youth Transition Center Juvenile Hall Replacement Project

Regional Location

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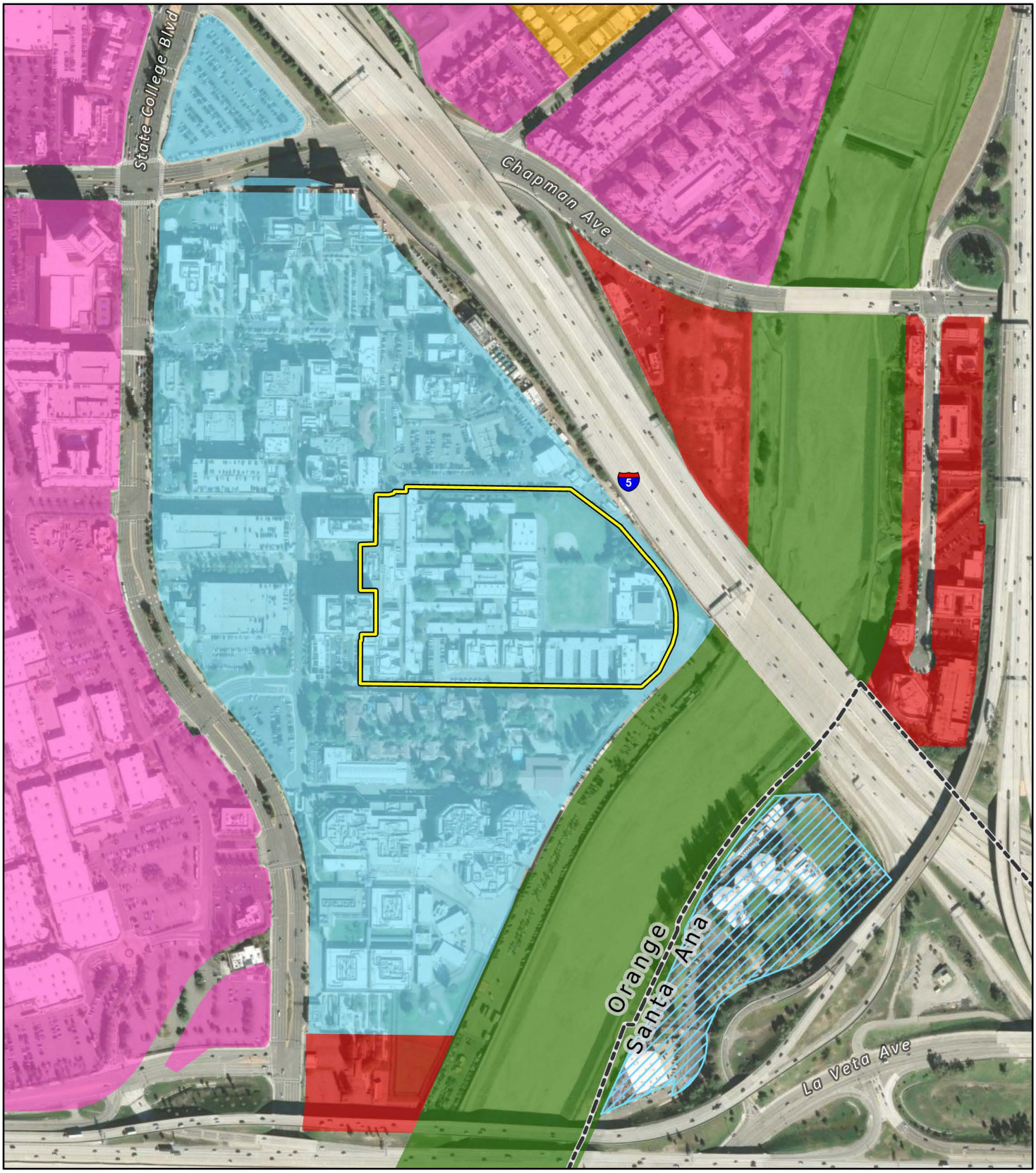

LSA

Project Site
City Boundary

City of Orange General Plan
GC - General Commercial Max. 1.0 FAR
LMDR - Low Medium Residential 6-15 du/ac
OS - Open Space

PFI - Public Facilities Max. 0.5 FAR and Institutions Max. 2.0 FAR
UMIX - Urban Mixed Use 30-60 du/ac 1.5-3.0 FAR

City of Santa Ana General Plan
INS - Institutional

N

0 250 500
FEET

FIGURE 3-2

Orange County Youth Transition Center Juvenile Hall Replacement Project

General Plan Land Uses

SOURCE: Esri Imagery (January 29, 2024), City of Orange (February 2, 2022)

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This land use designation includes service organizations and housing related institutional uses, such as dormitories, employee housing, assisted living, convalescent homes, and skilled nursing facilities.

According to the City of Orange Zoning Code, the project site is currently zoned as Public Institution (P-I). Refer to Figure 3-3, Zoning Designations, for the zoning of the project site and surrounding areas. The P-I zoning district is intended to accommodate a wide range of public and quasi-public uses that need special consideration and may accommodate housing and privately operated medical and office activities.

The proposed project would redevelop the existing institutional uses within the project site with new buildings that would support the same institutional uses and would not result in any changes to applicable land use and planning regulations. Table 3.A, On-Site and Adjacent Land Uses, summarizes the surrounding land uses, General Plan designations, and zoning. Figure 3-4, Existing Land Uses, illustrates the locations of these nearby land uses as they relate to the project site.

Table 3.A: On-Site and Adjacent Land Uses

Direction	Existing Land Use	General Plan Land Use Designation	Zoning District
Project Site	Developed –Juvenile Hall Campus	Public Facilities and Institutions (PF/I)	Public Institution (P-I)
North	Developed – UC Irvine Medical Center research hospital providing cancer, dermatology, digestive, heart, neurology, orthopedics, primary, same-day, and surgery care.	Public Facilities and Institutions (PF/I)	Public Institution (P-I)
East	Developed – I-5 Freeway	N/A	N/A
South	Developed – Orangewood Children's Home providing 24-hour emergency shelter care for children who have been abused, abandoned, and/or neglected.	Public Facilities and Institutions (PF/I)	Public Institution (P-I)
West	Developed – Lamoreaux Justice Center providing court services, including family law, and children's chambers.	Public Facilities and Institutions (PF/I)	Public Institution (P-I)

Sources: City of Orange General Plan Land Use Element (2010; Revised 2015); City of Orange Zoning Map (2020).

3.3 Proposed Project

The proposed project consists of demolition of portions of the current Campus for development of the new buildings under the various phases of the project. Phase 1 would primarily consist of development of the new YTC that would operate independently of Juvenile Hall with added housing for youth, and dining, culinary, education, and vocational spaces along with recreational exterior areas. Phase 2 would consist of a new long-term housing unit and a classroom-library building that would be developed for use within the Campus secure perimeter. In addition, a TAY housing unit would also be built outside of the Campus secure perimeter. Phase 3 is currently being designed and is tentatively anticipated to only include tenant improvements for buildings not being demolished that require updating. In order to comply with modern code requirements, Phases 1 and 2 would include associated accessibility, open space, and landscaping and hardscaping improvements. The new state-of-the-art facilities would be designed to provide a non-institutional, home-like environments and incorporate effective and therapeutic programs to ensure successful outcomes for residents and reduce recidivism.

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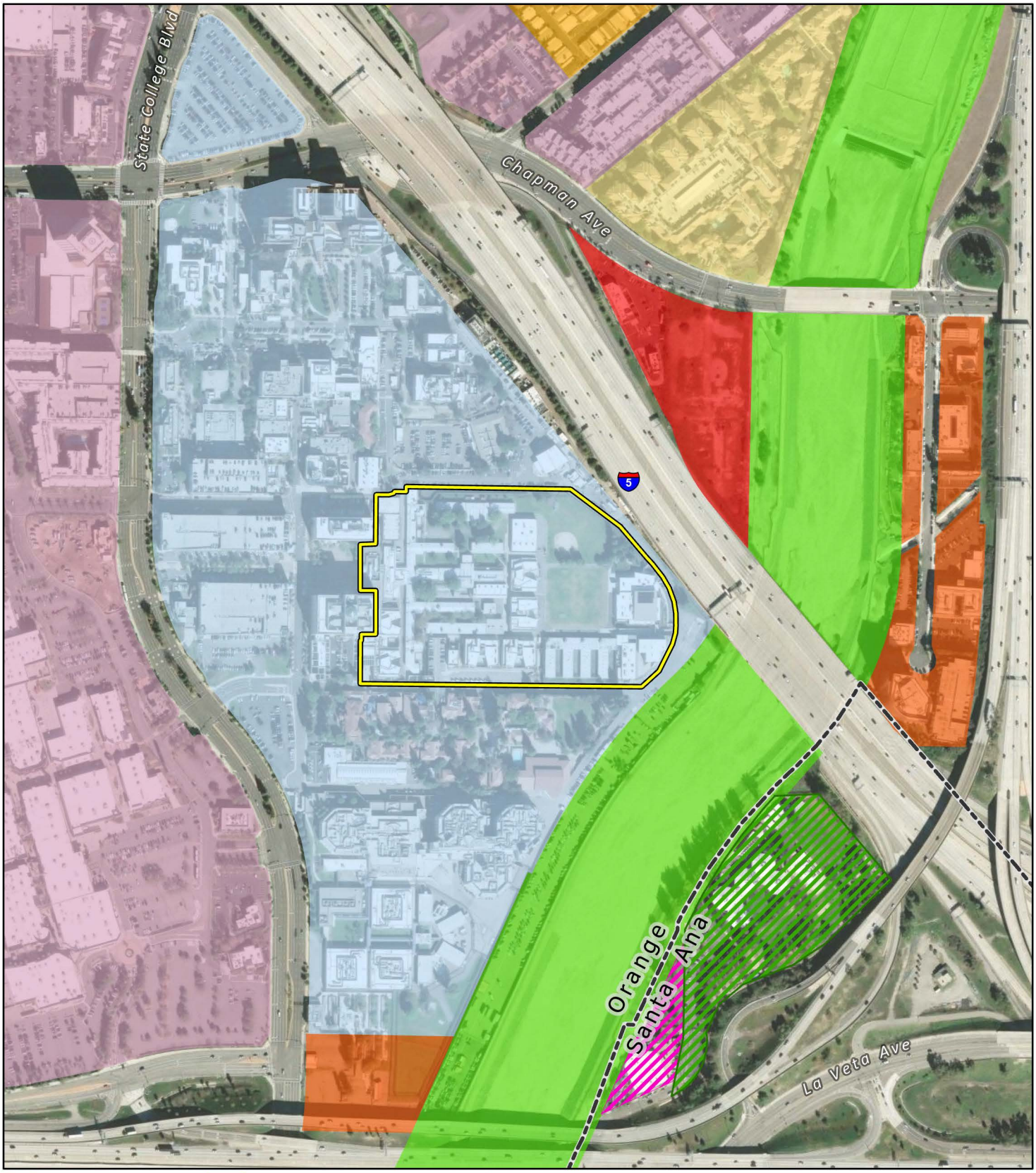

LSA

Project Site
City Boundary

City of Orange Zoning
Mobile Home Residential
Planned Community
Urban Mixed Use
Limited Business
General Business
Public Institution
Recreation Open Space

City of Santa Ana Zoning
Agriculture
Open Space

FIGURE 3-3

N

0 250 500
FEET

Orange County Youth Transition Center Juvenile Hall Replacement Project

Zoning Designations

SOURCE: Esri Imagery (January 29, 2024), City of Orange (January 23, 2024)

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LSA

Project Site

City Boundary

FIGURE 3-4

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0 150 300

FEET

SOURCE: Nearmap Aerial Imagery (August 26, 2024)

Orange County Youth Transition Center Juvenile Hall Replacement Project

Existing Land Uses

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3.4 Background and Need

The Campus houses youth between the ages of 12 and 25 who have violated the law and are either being detained as minors pending court hearings or being tried as adults in the Superior Court.

While the Campus currently provides youth with education, activities, and counseling, it is limited in its ability to ensure the successful transition of youth into society upon their release. The proposed project has been designed in a manner consistent with the Orange County Probation Department's recent efforts to pursue alternatives to incarceration, such as reformative programs designed to reduce the overall daily population of youth within its facilities. Between 2014 and 2024, the Orange County Probation Department saw a 50.3 percent decline in the average daily population of youth in its facilities. The proposed project would support this transition through the development of the YTC, a new and innovative camp facility for youth and TAY housing.

Portions of the Campus would be demolished for development of the YTC. The new YTC would meet or exceed State and County requirements for a juvenile detention facility and go above and beyond these requirements to provide a nurturing environment with the goal of significantly enriching the lives of youth within the YTC facility. The new structures would differ from traditional juvenile detention facilities through a new non-institutional design intended to foster a sense of calm and comfort, with the ultimate goal of promoting positivity and well-being within its youth population. The end product would result in the YTC with its own secure perimeter directly adjacent to the Juvenile Hall to serve the various populations of youth under their respective programs.

Through the design process, the building scope for the proposed project is planned to be up to approximately 117,905 square feet (sf) and would incorporate the addition of one alternative camp and enhanced security fencing requirements.

3.5 Project Phasing

Construction of the proposed project would occur in three phases, discussed in detail below. Table 3.B describes the building area of each structure that would be demolished under the proposed project.

Table 3.B: Buildings Proposed for Demolition (Square Feet)

Name/Description	Phase	Square Footage (Approximate)
Building #5 (Units A and I)	Phase 1	14,416
Building #9 (Units R and S)	Phase 1	10,387
Classroom Building #11	Phase 1	2,821
Classroom Building #10	Phase 1	2,514
Visitation Trailer	Phase 1	11,130
Library & Offices Building	Phase 1	11,573
Units O & M	Phase 1	12,721
Classroom Building #12	Phase 2	4,639
Classroom Building #19	Phase 2	4,788
Building #16 (Units G, H, J, and K)	Phase 2	20,600
	TOTAL	**95,589**

Table 3.C below details the total new construction occurring under the proposed project, including the planned area of each proposed building.

Table 3.C: New Buildings (Square Feet)

Name/Description	Phase	Square Footage (Approximate)
YTC Living Unit Buildings (2)	Phase 1	31,276
Vocational/Educational Building	Phase 1	12,678
Culinary Building	Phase 1	4,444
Transitional Housing	Phase 1	3,598
Administrative/Medical Health Building	Phase 1	12,587
Long Term Housing	Phase 2	20,375
Classroom/Library Building	Phase 2	14,360
Independent Living Building	Phase 2	18,587
	TOTAL	**87,223**

Note: These values are approximate and may be subject to change. They likely overestimate the area of each building to provide a conservative, worst-case scenario analysis.

As shown in Tables 3.B and 3.C, the proposed project would demolish a total of approximately 95,589 sf of existing structures within the Campus and would construct a total of approximately 117,905 sf in new structures, for a net increase of 22,316 sf.

3.5.1 Phase 1

Under Phase 1 of the proposed project, the following buildings in the northern portion of the project site would be demolished:

- Building #5, including Housing Unit A (currently occupied) and Housing Unit I (currently unoccupied)
- Building #9, including Housing Units R and S (both of which are currently unoccupied)
- Housing Unit M and Housing Unit O (both of which are currently occupied)
- Classroom Building #10
- Classroom Building #11
- Library and Offices Building
- Visitation Trailer

In addition to the existing permanent buildings, a visitation trailer on the northwestern corner of the Campus would be removed during Phase 1 of the proposed project. In place of the buildings, six buildings comprising the YTC would be developed. Phase 1 also proposes site access reconfigurations, new parking areas, outdoor recreational facilities, landscape development, and connections to the existing Juvenile Hall, discussed in further detail in Section 2.3.3 below.

3.5.2 Phase 2

Phase 2 of the proposed project involves demolition of the following three buildings:

- Classroom Building (located east of Housing Unit B)
- Classroom Building (located north of Building #14)
- Building #16, including Housing Units G and H (currently occupied) and Units J and K (currently unoccupied)

The Phase 2 scope includes a new long-term housing unit and a classroom library replacement building, both of which would be located outside of the YTC boundary but within the secure Campus. The proposed long-term housing facility would be constructed just south of the YTC boundary to provide long-term lodging for youths that allow for more independence and a "dorm-like" feeling with minimal visible security elements. Adjacent to the long-term housing facility would be a new classroom and library building to replace the four classrooms and library that are currently located in the Library and Offices Building. In addition, a new independent living unit would be constructed outside the secure perimeter of both Juvenile Hall and the YTC. The proposed independent living unit would provide youth that have been discharged with housing that would assist them during their transition back into society.

3.5.3 Phase 3

Phase 3 of the proposed project is currently being designed and is tentatively anticipated to consist of tenant improvements to existing building and units that are set to remain on the southwest and southeast areas of the Campus including an administrative/medical building, a control building, and a laundry warehouse and food service building adjacent to the existing independent living units. No demolition or construction is currently proposed under Phase 3.

Figure 3-5, Phasing Plan, depicts the demolition, phasing, and improvement plan for the proposed project, and Figure 3-6, Overall Site Plan, depicts the proposed project's site plan.

3.5.3.1 Youth Transition Center (YTC) Components

The YTC, to be completed during Phase 1, is the most extensive redevelopment plan in the proposed project and consists of six different buildings. The proposed YTC is designed to provide juvenile offenders with the healthcare, education, and skills necessary to re-enter society and avoid recidivism, along with a greater degree of freedom than under existing conditions. The YTC would consist of two distinct living unit buildings, a medical and behavioral health building, an educational and vocational building, a culinary kitchen building, and transitional living units. Additionally, outdoor facilities would include an exercise area, a horticulture area, a class area, and a living garden. Figure 3-7, YTC Site Plan, highlights the various components planned for the facility.

3.5.3.2 Administration, Medical and Behavioral Health Services Building

This proposed building, totaling approximately 12,587 sf, would contain space for both administration services and medical/behavioral health services.

The administration area is intended to support staff with facility and personnel management, training, counseling, and program administration. This space would include a working area for staff members, a storage room, an interior reception space, a 16-person conference room, and associated operational areas. The administration area would serve as the Campus frontage and entry point to the facility via Service Way South, positioned near the parking lot located at the northwest corner of the project site.

The proposed medical and behavioral health service area is intended to provide healthcare to resident youth in a relaxing environment. The space for the medical and behavioral health services would be located within the same building as the administration space, sharing the entry lobby and reception area.

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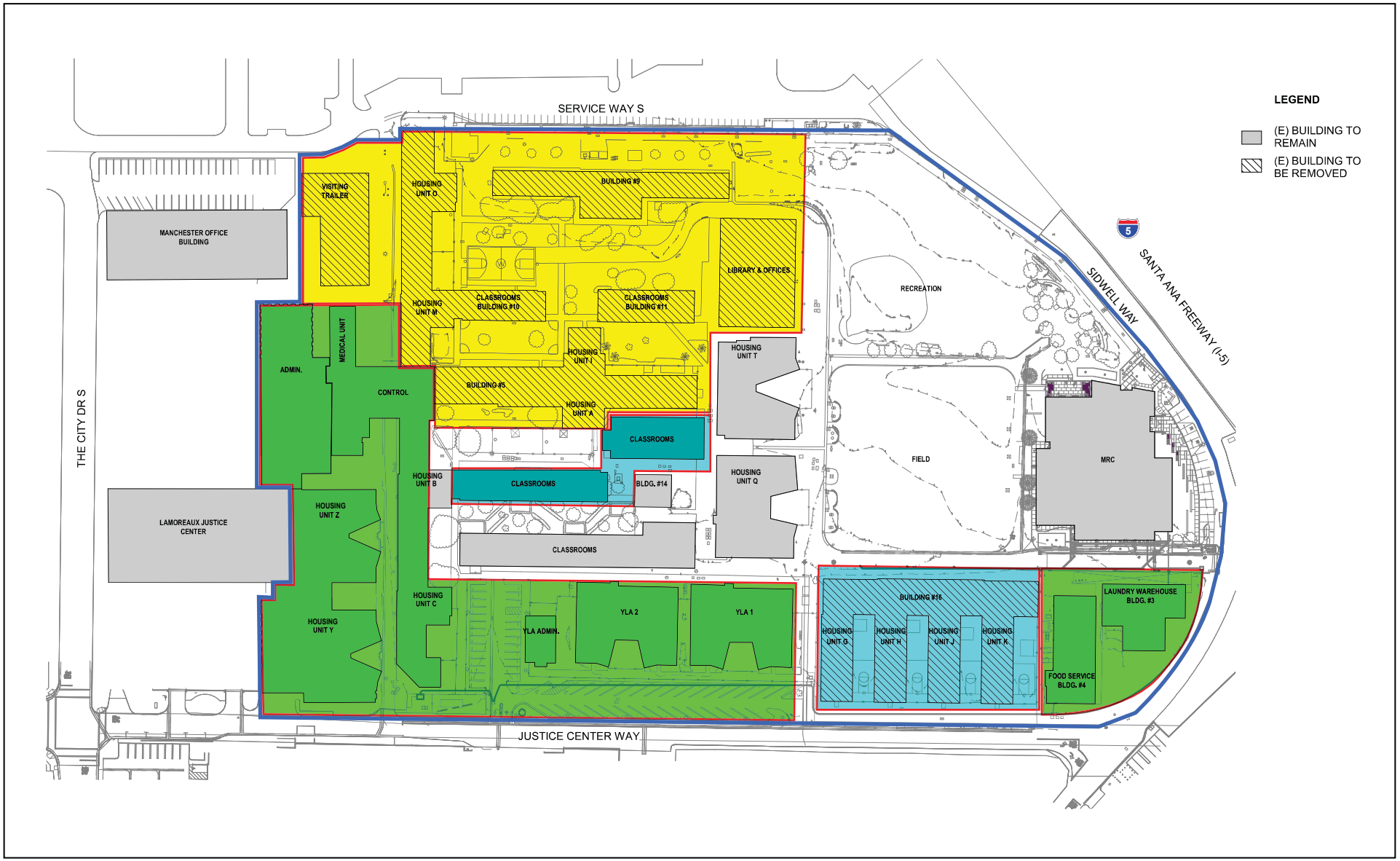

LSA

LEGEND

- Project Site
- Phase 1
- Phase 2
- Phase 3

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SOURCE: Lionakis

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FIGURE 3-5

Orange County Youth Transition Center
Juvenile Hall Replacement Project
Phasing Plan

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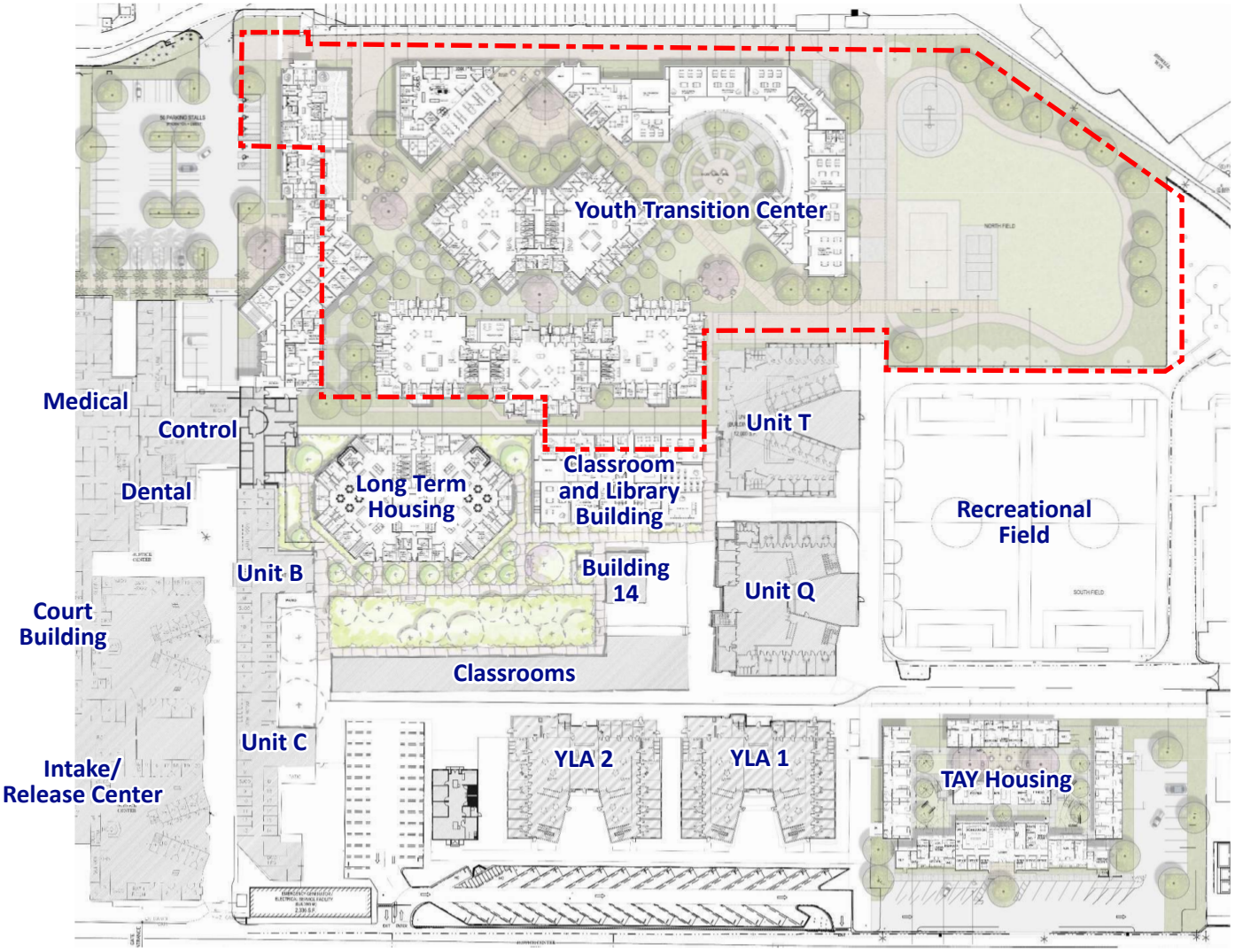

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LEGEND

Youth Transition Boundary

FIGURE 3-6

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NO SCALE

SOURCE: DLR Group, Balfour Beatty, OC Dept of Public Works

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Orange County Youth Transition Center
Juvenile Hall Replacement Project
Overall Site Plan

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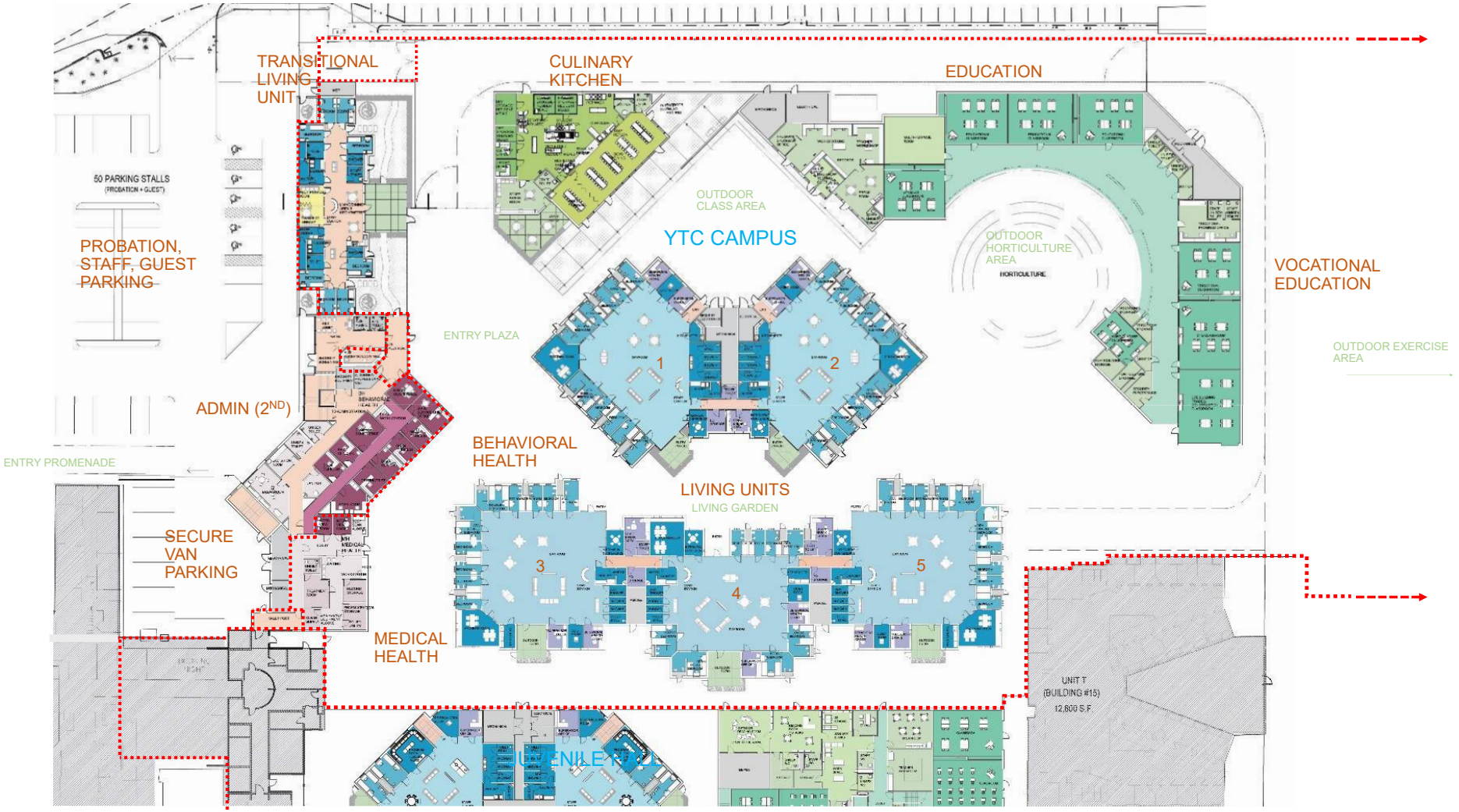

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LEGEND

Security Perimeter

FIGURE 3-7

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NO SCALE

SOURCE: DLR Group, Balfour Beatty, OC Dept of Public Works

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Orange County Youth Transition Center
Juvenile Hall Replacement Project
YTC Site Plan

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The medical and behavioral health area would provide a medical treatment room and a behavioral health program space. The medical treatment room would consist of a shared office for clinicians and doctors and include associated operational areas. The behavioral health program space would feature six behavioral clinician offices, a workroom, a director's office, and a counseling room. The parking lot near the front entrance would feature an accessible parking space dedicated for ambulances in the event of emergencies.

3.5.3.3 Educational and Vocational Programs Building

The proposed YTC educational and vocational programs building would consist of two educational classrooms, work room, multi-purpose room, and associated infrastructure. It would total approximately 12,678 sf and include a library shared with the remainder of the Campus. The proposed vocational component would include a vocational classroom, horticulture classroom, two Career and Technical Education (CTE) classrooms, storage, office, and other associated infrastructure. These proposed program components are intended to establish educational support to resident youth with the goals of completing high school curriculum or furthering education through college classes. These two programs would be combined into one building with shared support spaces, and programs would be designed with flexibility, providing access to Wi-Fi, laptops, and other technology to assist in learning. Two of the five proposed classrooms would be designated for Special Education use, and CTE classrooms would also have access to special resources supporting the programs including construction, culinary, music, video, animation, and robotics courses.

3.5.3.4 Culinary Kitchen and Dining Building

The proposed YTC culinary kitchen and dining building would total approximately 4,444 sf and provide three meals a day, seven days per week for youth and staff. The building would be located centrally within the YTC and used by all YTC youth housed in the living units. This building would include associated outdoor dining and barbecue areas and infrastructure.

3.5.3.5 YTC Living Units

The proposed YTC living units would consist of five units that can each house up to 12 youth. All of the units together would total 31,276 sf. Living units would share support and utility services but be kept separate to allow for division by gender and/or age. The living units would be single story and designed as a cohesive element of the YTC. The units would also be designed to have access to the surrounding facilities, including the culinary kitchen and dining building, and the educational and vocational building.

Facilities within the YTC living units would include living spaces, a dayroom, interview/counseling rooms, a multi-purpose room, a behavioral health office, a laundry area, an equipment room, and a quiet room. Each living unit would consist of one accessible bedroom, and eleven single-occupant standard bedrooms with a toilet and sink. Staff would have the ability to ensure safety in each of the units through electronic and physical keys, and in emergencies through central control. The bedrooms would be designed to be welcoming and colorful to youth residents.

3.5.3.6 Transitional Living Unit

The proposed YTC transitional living unit would include eight single occupant bedrooms, and shared spaces that include a combined living and dining area with a kitchenette, two bathrooms, music/tv/library room, multi-purpose room, laundry room, and associated infrastructure totaling approximately 3,598 sf. These transitional living units would be designed with the intent to prepare TAY residents for life outside of the Campus. These units would be considered "open" and unlocked during the day to allow youth to travel to and from work or school. This building would still be located within the secure perimeter and

include a staff pick-up and drop-off area for youth as they are prohibited from driving. As a safety measure, youth housed in transitional living units would not be allowed to intermingle with other YTC youth.

3.5.3.7 Recreational and Courtyard Spaces

Proposed YTC outdoor amenities would include a soccer and multi-purpose field, handball courts, a track, outdoor amphitheater and courtyard, and outdoor workout area. These amenities would be incorporated into a park-like area and have access to living units within the YTC. Additionally, the County proposes the potential repurposing of the existing baseball field into a sports/recreational field that would better serve the Campus. Proposed workout areas would be grouped underneath outdoor structures to allow youth to exercise in cold or warm weather.

The proposed amphitheater is intended to allow resident youth to watch movies or to host a speaker. All outdoor amenities would be designed in a manner consistent with the site's proposed landscaping, and the use of sidewalks would be encouraged. In addition, the YTC courtyard and garden areas would be landscaped and provide benches for visitors, residents, and staff.

3.5.4 Other Juvenile Hall Components

3.5.4.1 Independent Living Unit

The proposed independent living unit, totaling up to approximately 18,587 sf, is intended to provide temporary supportive housing for recently discharged youth to assist them in transitioning back into society. This element would consist of ten two-bedroom units with living rooms, kitchenettes, laundry areas, bathrooms, and storage rooms. In addition, the independent living complex would include a music/TV/library room, support office, an office for third-party visitors, multi-purpose room, fitness room, and other associated infrastructure.

The independent living units would be positioned on the southern edge of the Campus, outside of the secure perimeter of Campus. Residents would be free to enter and exit as they please, as this building is designed to feel separate from the remainder of the Campus. Parking would be provided along Justice Center Way. For safety purposes, those living in these units would not be permitted to interact with youth residing in other portions of the Campus, and at least one staff member would be on site 24/7 to provide monitoring. Figure 3-8, Independent Living Site Plan, depicts the independent living units site plan. The Independent Living Units are also known as the TAY Housing.

3.5.4.2 Long-Term Housing

The proposed long-term housing unit, totaling up to approximately 20,375 sf, would consist of one accessible bedroom and 11 standard bedrooms with two beds each, totaling 24 beds. Additionally, the long-term housing unit would include staff areas, a living area, de-escalation room, video visitation rooms, an interview/conference room, behavioral health office, laundry room, and associated operational and storage areas. This long-term housing unit is intended to help youth become more independent and provide a space that feels "non-correctional."

This building would be cohesively integrated into the Campus, and have an attached recreation space including landscaping, gardening, barbecuing, dining, and other recreational opportunities for residents. Figure 3-9, Long-Term Housing Site Plan, depicts the various features planned for the site.

LSA

LEGEND

Security Perimeter

FIGURE 3-8
Page 1 of 2

N

NO SCALE

SOURCE: DLR Group, Balfour Beatty, OC Dept of Public Works

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Orange County Youth Transition Center
Juvenile Hall Replacement Project
TAY Housing Site Plan – Ground Floor

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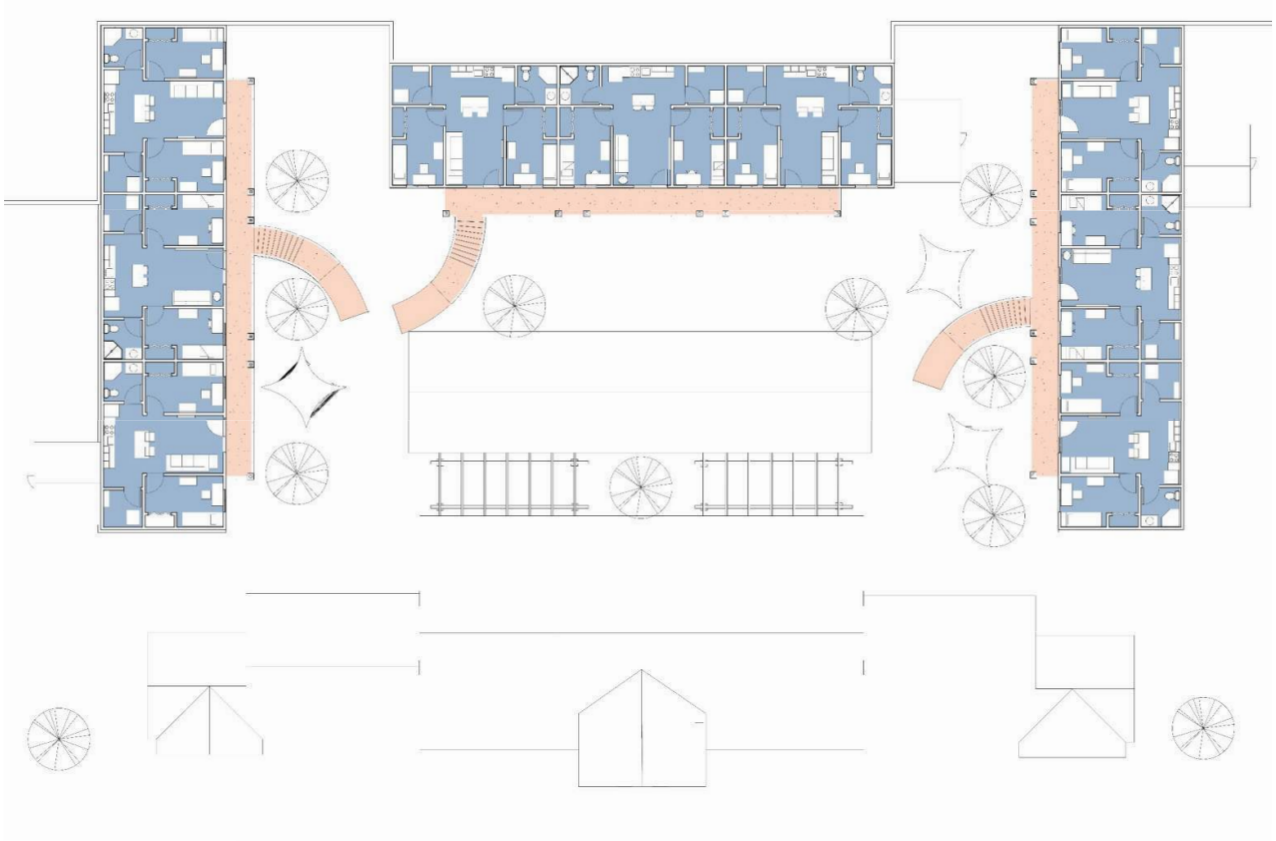

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FIGURE 3-8
Page 2 of 2

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NO SCALE

SOURCE: DLR Group, Balfour Beatty, OC Dept of Public Works

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Orange County Youth Transition Center
Juvenile Hall Replacement Project
TAY Housing Site Plan – Second Floor

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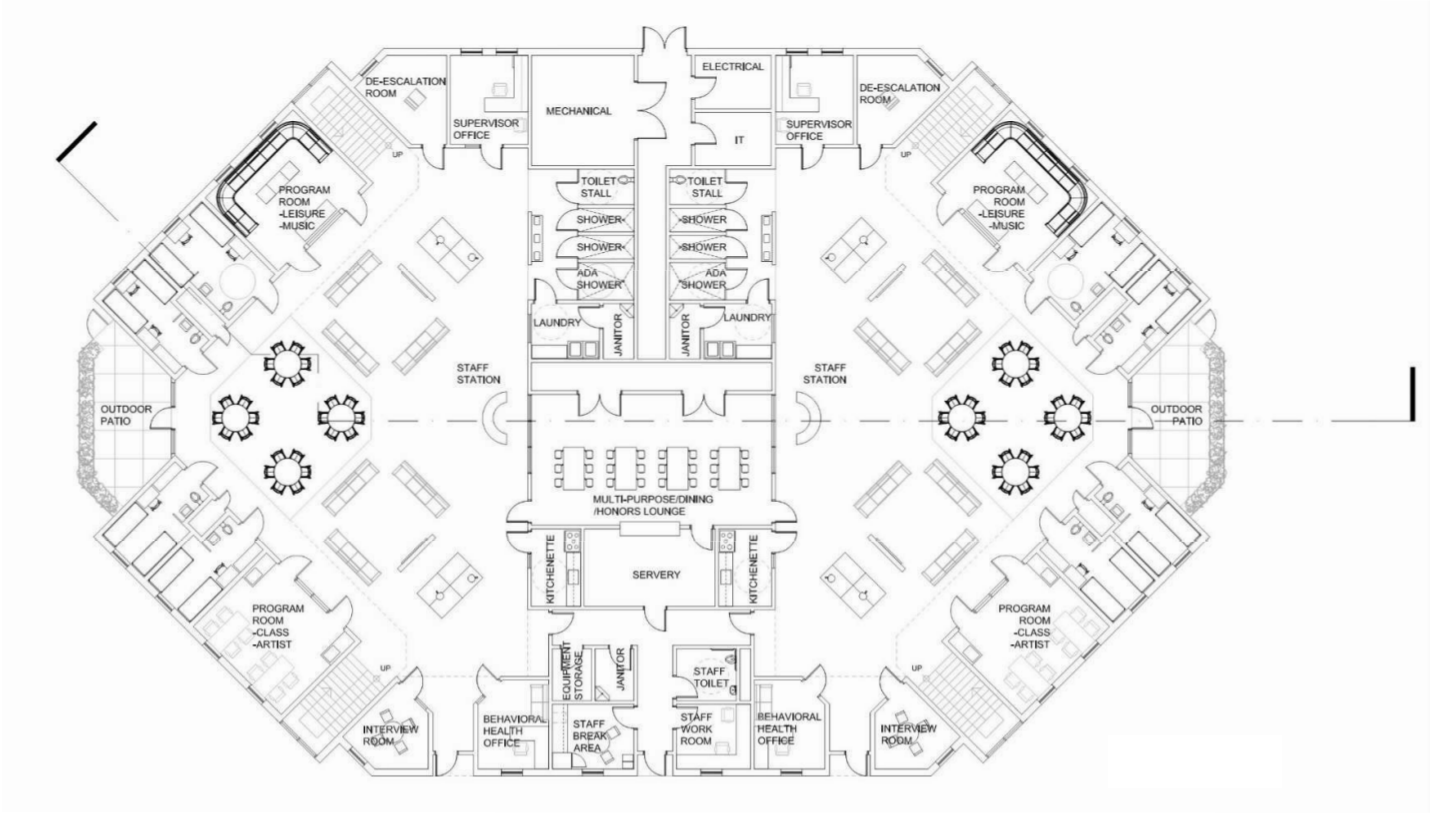

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FIGURE 3-9
Page 1 of 2

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SOURCE: DLR Group, Balfour Beatty, OC Dept of Public Works

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Orange County Youth Transition Center
Juvenile Hall Replacement Project
Long-Term Housing Site Plan - Ground Floor

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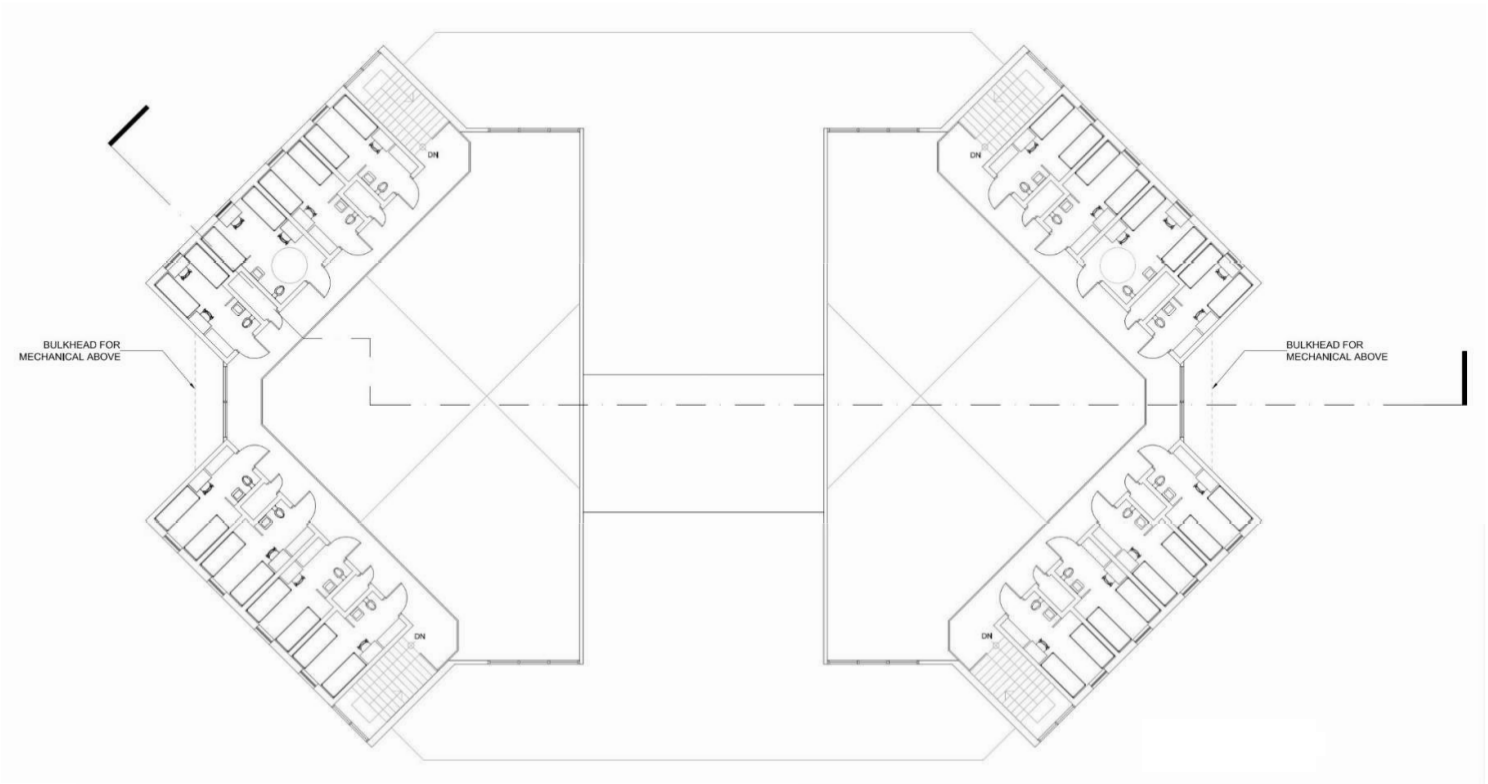

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FIGURE 3-9
Page 2 of 2

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SOURCE: DLR Group, Balfour Beatty, OC Dept of Public Works

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Orange County Youth Transition Center
Juvenile Hall Replacement Project
Long-Term Housing Site Plan - Mezzanine Floor

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3.5.4.3 Classroom and Library Replacement

The proposed classroom and library replacement is intended to replace the existing four classrooms and library currently located in the Campus library and office building with a new classroom and library building. This building would total up to approximately 14,360 sf, consisting of four educational classrooms, an educational workroom, an office, library, and associated operational areas.

This building would be used by both Juvenile Hall youth and YTC youth and would be accessible from both portions of the Campus. The building is tentatively planned to be located in a central location of the Campus, east of the proposed Long-Term Housing. Figure 3-10, Classroom and Library Building Tentative Site Plan, depicts the various features planned for this use.

3.5.4.4 Daily Operations

The Orange County Probation Department is responsible for providing administrative duties for the Campus through their Juvenile Operations Bureau. The Juvenile Operations Bureau provides oversight and direction for the existing Juvenile Hall, YGC, and YLA. These facilities operate 24-hours-per-day, 7-days-per-week, providing a broad range of treatment and rehabilitative programs for resident youth, and the services currently provided at the YGC would be transferred onto the YTC site. The current YGC space, which is physically separated from the Campus by the Santa Ana River Channel, would become the Coordinated Re-Entry Center (CRC) for adults and would be operated by an external agency. As such, the existing YGC is not considered part of the proposed project or its physical footprint.

The proposed project is intended to provide a therapeutic and integrative approach to correctional juvenile facilities. The proposed developments are intended to be multi-use and flexible, providing access to open, outdoor, and green space. The non-institutional design is intended to provide dignity and hope while maintaining security. The proposed project intends to foster a sense of community with a campus-like environment, be adaptive to changing population needs, and provide functional working and living spaces for residents and staff alike.

The proposed project is intended to be youth focused, with numerous enrichment programs ranging from educational to specialized activities, with emphasis on behavioral counseling and a promotion of family participation to establish support systems.

3.5.4.5 Facility Capacity

In 2022, the average daily population of Juvenile Hall was 143 and the average population of YLA was 63. The proposed YTC living units and transitional living units would have a rated capacity of 68, while the proposed independent living units and long-term housing units would have rated capacities of 20 and 24, respectively. It is expected that one housing unit may be vacant upon completion and opening of the new facility and would be occupied at a later date.

3.5.4.6 Movement within the Campus

Movement between facilities, including Juvenile Hall, YLA, and the proposed YTC, would be directly supervised by staff, with the goal for the YTC to eventually allow youth unescorted movement between buildings. Entry and exit from secure areas would be achieved through a system of multiple secure doors, and individual or group movement would be controlled by staff escort in addition to monitoring through cameras at Juvenile Control.

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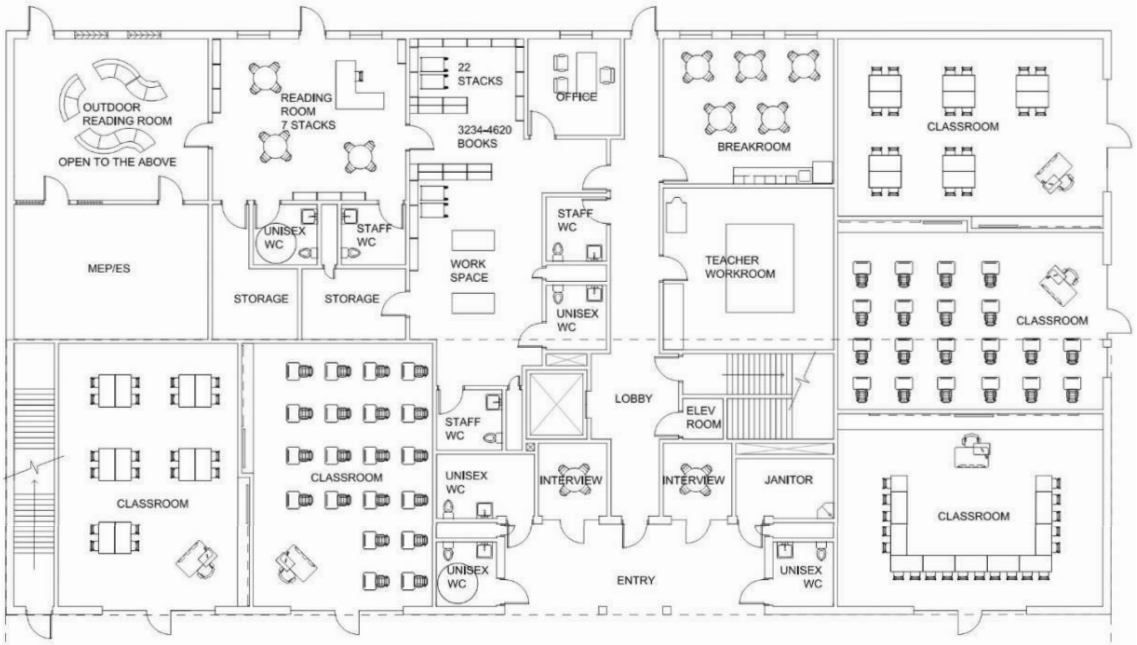

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FIGURE 3-10

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SOURCE: DLR Group, Balfour Beatty, OC Dept of Public Works

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Orange County Youth Transition Center
Juvenile Hall Replacement Project
Classroom and Library Building Site Plan

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3.5.4.7 Programs

The proposed YTC is envisioned to provide several enriching programs, ranging from general education and CTE programs to music and horticulture programs. In addition, the existing MRC is used for religious activities, and the gymnasium and multi-purpose room are used for performance arts programs. The Orange County Department of Education provides comprehensive school curriculum for resident youth and provides physical education classes at the MRC. Under the proposed project, the MRC would continue to accommodate these programs and activities.

3.5.4.8 Physical and Mental Health Services

The Orange County Health Care Agency provides 24-hour medical care at the Campus. Upon entrance, initial mental health screenings are completed at the Juvenile Hall Intake and Release Center. The Orange County Health Care Agency and the Orange County Department of Education Safe Schools Division provide mental health services at the Campus. The YTC would be specifically designed to minimize the potential for self-harm or suicide attempts and utilize Orange County's robust suicide prevention program. Under the proposed project, the various physical and mental health services would continue to be provided by these agencies.

3.5.4.9 Disability and Accessibility Elements

The proposed project would be designed in compliance with all Americans with Disabilities Act (ADA) standards, including standards for path of travel and parking stall requirements. The proposed project would provide accessible living units and sufficient space for wheelchairs, gurneys, and other assistive devices. The proposed project would include one dedicated ambulance parking space in the parking lot located on the northwest portion of the Campus for use in the event of medical emergencies. Additionally, the ADA requires a minimum of 3 accessible parking spaces for facilities totaling 51 to 75 parking spaces, as discussed further in Section 3.5.7 below.

3.5.5 Building and Structural Design

Aesthetically, the proposed project is intended to be built consistent with the architectural style of the recently constructed MRC. The building design would be in accordance with all applicable County standards and guidelines and the proposed General Architectural Site Design Criteria. In addition, the proposed project has outlined criteria and plans for fire protection and sustainability on the Campus.

3.5.5.1 Fire Protection

The proposed project would incorporate fire protection through an automatic wet fire suppression system in accordance with the California Fire Code (CFC), National Fire Protection Association (NFPA) Standards, and local amendments. The suppression system would connect to a dedicated fire water supply line through a dedicated fire riser room space adjacent to the building's exterior. The suppression system would include drains, valves, monitoring, sprinklers, alarms, and an overall central control panel.

3.5.5.2 Sustainability

The proposed project would emphasize sustainability as a key goal and be designed in compliance with the California Green Building Standards Code (CALGreen Code) for residential and non-residential buildings to the extent feasible. Additionally, the proposed project would be designed to achieve a sustainability goal of Leadership in Energy and Environmental Design (LEED) Silver equivalency. The proposed project would include electric vehicle (EV) capable spaces and EV charging spaces pursuant to CALGreen Code standards, including 40 percent of total parking spaces for EVs, 25 percent of spaces to be EV ready (installation of Level 2 EV charging receptacles), 5 percent with Level 2 EV chargers, and 10 percent EV capable spaces (infrastructure is installed for future EV chargers).

3.5.6 Landscaping and Hardscaping

The proposed hardscape and landscape improvements for the proposed project would be considered an extension of the architecture on the Campus, and be designed consistent with the style, plant palette, and hardscape recently installed at the MRC facility. The proposed improvements are intended to unify the Campus, create distinct outdoor character, promote safe interactions, reinforce sustainable design, and protect and preserve existing mature trees.

Proposed hardscaping improvements to the YTC include additions at the entry arrival plaza and shaded accessible granite pathways with concrete edging, using materials, colors, textures, and forms consistent with the architectural style and MRC standard. In addition, landscaping additions include an educational and interpretive garden located at the northeast corner of the project site and native and drought-tolerant tree groves and shrub planting throughout the Campus. The proposed project would also include a horticultural program, high-efficiency irrigation equipment, and mulch planting areas for water retention, controlled water loss, erosion, and weed control.

Figure 3-11, YTC Landscaping Plan, details landscaping plans within the Campus, which the other project components would emulate.

3.5.7 Vehicle Access, Site Circulation, and Parking

Primary access to the project site would be from the northwest corner of the Campus, with additional access in between the Manchester office building and the existing Juvenile Hall Administration building. The proposed project includes the addition of two new parking lots. The first parking lot would be located in front of the administration building and would be accessible via Service Way South. An additional parking lot along Justice Center Way would be constructed to serve the independent living units.

Each parking lot would meet code requirements for accessible and electric vehicle charging stations (EVCS) parking spots, and would need to serve YTC staff, clinicians, community-based organizations, and visitors. Parking lots would also contain security measures to prevent contraband entry. In order to provide sufficient parking, the existing visitor trailer on the northwestern corner of the Campus would be removed and replaced with parking spaces during Phase 1 of the proposed project. Additional parking could also be provided along the site of the existing independent living units, and along the Facility Support building, which would be reserved and secured for staff only.

The proposed project would include 51 parking spaces including those required by code for EVCS and accessibility; 46 spaces would be designated for cars, while 5 spaces would be designated for vans. All proposed parking spaces would be implemented in compliance with both ADA and EVCS standards. According to ADA standards, three accessible parking spaces would be required for a facility of this size. In addition, EVCS standards require that at least 40 percent of the parking spaces be designated for EVs (25 percent of spaces to be EV ready, 5 percent with Level 2 EV chargers, and 10 percent to be EV capable spaces).

3.5.8 Utilities

The proposed project would add new wet utility laterals (i.e., sewer, water, storm drain) to the Campus to support the proposed new buildings, as needed. In addition, new electrical improvements would be provided for the proposed new buildings.

LSA

FIGURE 3-11

NO SCALE

SOURCE: DLR Group, Balfour Beatty, OC Dept of Public Works

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Orange County Youth Transition Center
Juvenile Hall Replacement Project
YTC Landscaping Plan

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3.5.8.1 Sewer

The proposed project would include one or more new 4-inch sewer laterals, and potential grease interceptors to be extended from the existing 10-inch mainline sewer system provided on the Campus. Any new proposed sewer laterals or grease interceptors would be verified and potholed during final design to ensure adequate fall for the existing gravity system. If field verification shows an inadequacy, a pump/injector system would be installed.

3.5.8.2 Storm Drainage and Stormwater

The proposed project would include new storm drainage laterals to be extended as needed from the existing 42-inch mainline storm drain provided on the Campus. In addition to the existing series of 24-inch by 24-inch inlets in the courtyard areas around the existing Campus buildings, the proposed project would add a new low point with a relocated inlet to direct storm flows to a water quality treatment basin. All hydrology and hydrologic calculations would be performed and verified for protection in a 100-year storm event according to the Orange County Hydrology Manual (1986) and its Addendum (1996) during final design.

The proposed project would capture on-site water via roof drains, atrium area rains, and catch basins located throughout the Campus. The project site would be designed to help route water into a series of designated bioretention basins prior to discharge. One storm drain would be connected to the existing mainline, which runs south along The City Drive and discharges into the Santa Ana River Channel, which ultimately leads to the Pacific Ocean. A site-specific Water Quality Management Plan ("WQMP") has been prepared for the proposed project and outlines Stormwater Management Best Practices ("BMPs") that are in compliance with this document, ensure conservation, and mimic natural hydrologic patterns.

The proposed project would provide a series of proposed bioretention planter systems in order to capture and treat stormwater runoff.

3.5.8.3 Electrical

The electrical and lighting plans for the proposed project are designed with flexibility, efficiency, sustainability, and maximization of building performance. The design, manufacture, testing, and method of installation of all apparatus and materials would conform with the latest applicable codes and standards. At a minimum, the proposed project would require new pull boxes and existing underground utilities to be rerouted in accommodation of the new construction.

The YTC would encompass most of the new construction, and therefore would require the most extensive changes and additions to electrical infrastructure. The YTC would include a main electrical room that would serve all the buildings on the north side of the Campus. In addition, a new main switchboard in the main electrical room would require a new electrical feeder to serve the YTC buildings. The independent living units would be served by an existing feeder in the facility.

All new and existing switchboards, panelboards, transformers, and conduit conductors would follow applicable codes, standards, and criteria. All new YTC buildings would be served by a new emergency generator, while the independent living units would be served by the existing generator. In addition, a new solar photovoltaic (PV) system and battery storage system would serve the new YTC buildings as required by the California Energy Code and California Building Code (CBC) Title 24.

The proposed project's interior, exterior, and emergency lighting designs would follow existing applicable standards. Lighting levels on site would conform to the Illuminating Engineering Society of North America Standards (IESNA). Energy efficiency would be achieved through zone lighting, task lighting, and the use of light-emitting diode (LED) luminaries.

Exterior lighting would adhere to existing on-site aesthetics and design standards and be designed to minimize light pollution and glare. Exterior lighting would comply with the latest IESNA handbook, and CBC Title 24. All new luminaires would be LED and incorporated into the Building Management System for the Campus. Additionally, emergency egress lighting to the adjacent public right-of-way would be provided.

Emergency egress lighting would be designed to meet National Electrical Code Requirements and emergency LED emergency "EXIT" signs would be provided.

3.5.8.4 Gas

The proposed project would include the use of natural gas, limited to the culinary kitchen. Existing natural gas infrastructure would serve the proposed project, including gas lines at the southern portion of the project site and gas lines within the northern portion of the Campus. Additional connections may be necessary.

3.5.9 Construction and Phasing

Construction of the proposed project would comply with the CBC, the County of Orange Building Department Requirements, and additional vertical design criteria including roof live load requirements, floor live load requirements, and vibration criteria. In addition, materials and construction would comply with mechanical and acoustic design requirements, minimum CBC solar readiness requirements, soil design criteria based on site-specific geotechnical and geohazard reports, and lateral design criteria including seismic, wind, and wall exterior cladding deflection. Phase 1 of the proposed project is estimated to begin in February 2025 and would last approximately 30 months, concluding in December 2027. The exact timelines of Phases 2 and 3 are yet to be determined, but it is anticipated that neither phase would have a duration longer than Phase 1.

During Phases 1 and 2 of demolition and construction, construction equipment would be staged on the northeastern side of the Campus, where the existing recreational field is located. Construction vehicles would access the project site via Justice Center Way to Sidwell Way. Additionally, a controlled construction access point south of the MRC would serve the project site during Phases 1 and 2.

3.5.9.1 Construction Materials

The proposed project's building materials would include concrete, plane joints, mortar, grout, reinforcing bars, concave mortar joints, steel, steel decking, steel framing, and wood framing. Structural materials and concrete properties would be designed to meet American Concrete Institution, American Society for Testing and Materials, the Division of the State Architect, the Society for Protective Coatings, the American Institute of Steel Construction, and CBC requirements. All cold formed steel framing products would be manufactured by either a current member of the Steel Stud Manufacturers Association or the Steel Framing Industry Association.

3.5.10 Grading and Earthwork

The existing grade on the project site is relatively flat, with gentle slopes ranging from 0.5 percent to 2 percent. The proposed pad grades and finish floor elevations for all new buildings would be elevated over the existing highest-grade point at the perimeter of each building, allowing surface drainage to be directed away from the proposed structures and toward appropriate drainage facilities. Existing earth materials in the building footprint areas would be excavated and properly compacted to an anticipated maximum depth of 6 feet (ft) below the existing ground surface. Deeper excavations could be conducted, as necessary, at the direction of the Geotechnical Engineer.

Grading would commence with the removal of all existing vegetation and improvements, and debris such as wood and root structures would be exported from the site. Fill and backfill soils would be placed in horizontal loose layers ranging from approximately 6 to 36 inches thick. It is not anticipated that the importation of soil would be necessary under the proposed project, as grading quantities are expected to be balanced on site.

The proposed project does not propose any retaining walls but may include vertical mounding landscaping improvements including planter drains and plaza drains in between buildings. An overall Campus Path of Travel Exhibit would be developed in accordance with ADA standards to confirm key walkway locations.

3.5.10.1 Demolition/Interim Security Fencing

Given the secure nature of the facility, security perimeter maintenance would be a top priority during construction of the proposed project. As such, in cases where demolition would occur near the existing security fence or would potentially compromise the fence, temporary security fencing would be installed.

3.5.11 Required Permits and Approvals

The County and other applicable agency approvals required for implementation of the proposed project may include, but are not limited to, the following:

County of Orange

- Adoption of the California Environmental Quality Act (CEQA) Final Initial Study with Mitigated Negative Declaration (IS/MND)
- Board of Supervisors Approval of Project Delivery and Construction Agreement Financing Program with State, Construction Agreement with State, Ground Lease, Right of Entry for Construction and Operation, Easement Agreement, Construction Contract, and Facility Sublease
- Approval of Water Quality Management Plan (WQMP)
- Approval of Plans, Specifications, and Estimates (PS&E)
- Temporary Construction Easements (TCEs), if necessary

Santa Ana Regional Water Quality Control Board

- National Pollutant Discharge Elimination System (NPDES) Construction General Permit
- Section 401 Water Quality Certification

Board of State and Community Corrections

- Cost, PS&E, and Final Construction Plans

State Fire Marshal

- Plans and Specifications

City of Orange

- Fire Inspections – Site Access Only

Various Utility Companies

- Encroachment Permits
- Easements

Chapter 4: Environmental Evaluation

4.1 Analysis Methodology

Analysis of potentially significant impacts of each of the environmental factors identified in Table 4.A below is based on the project site environmental setting, project description, and the sample questions/ thresholds of significance. Potentially significant impacts that are reduced below the level of significance by sample questions/thresholds of significance will detail how the potentially significant impact is reduced. Potentially significant impacts that are unable to be reduced below the level of significance will detain the various mitigation options applied and why none would reduce the impact.

The analysis will consider the whole of the actions and include the following:

- On-site impacts
- Off-site impacts
- Short-term construction impacts
- Long-term operational impacts
- Direct impacts
- Indirect impacts
- Cumulative impacts

4.2 Environmental Factors Potentially Affected

This document incorporates the Environmental Checklist Form from Appendix G of the CEQA Guidelines.

Table 4.A below lists the environmental factors that are evaluated in this document. Environmental factors that are checked contain at least one impact that has been determined to be a "Potentially Significant Impact." Environmental factors unchecked indicate those topics for which the project was determined to result in no impacts, less than significant impacts, or less than significant impacts with regulatory compliance measures, standard conditions, and mitigation measures incorporated into the project, as defined below:

- **Regulatory Compliance Measure (RCM):** A regulatory compliance measure is mandated by federal, State, regional, or local statutes and regulations. Because a regulatory compliance measure is derived from a legal requirement, it is applicable to all projects within a particular jurisdiction. A regulatory compliance measure is therefore not specific to individual projects and is applicable regardless of whether any potentially significant impacts would occur under a proposed project. Failure to comply with a regulatory compliance measure could result in legal action against a project.
- **Standard Condition (SC):** A standard condition, or standard condition of approval, is established by a lead agency, in this case OC Public Works, and is applicable to all projects subject to discretionary approval by the lead agency. A standard condition is therefore not specific to individual projects and is applicable regardless of whether any potentially significant impacts would occur under a proposed project. Failure to comply with a lead agency's standard condition(s) may prevent a proposed project from being approved.
- **Mitigation Measure (MM):** As defined in *State CEQA Guidelines* Section 15126.4, a mitigation measure is a measure that could minimize significant adverse impacts of a proposed project, and is only required when significant adverse impacts could potentially occur. A mitigation measure is fully enforceable through permit conditions, agreements, or other legally-binding instruments, and is often tracked through a Mitigation Monitoring and Reporting Program (MMRP).

Table 4.A: Environmental Factors Potentially Affected

☐ Aesthetics (4.5)	☐ Mineral Resources (4.16)
☐ Agriculture & Forestry Resources (4.6)	☐ Noise (4.17)
☐ Air Quality (4.7)	☐ Population & Housing (4.18)
☐ Biological Resources (4.8)	☐ Public Services (4.19)
☐ Cultural Resources (4.9)	☐ Recreation (4.20)
☐ Energy (4.10)	☐ Transportation (4.21)
☐ Geology and Soils (4.11)	☐ Tribal Cultural Resources (4.22)
☐ Greenhouse Gas Emissions (4.12)	☐ Utilities & Service Systems (4.23)
☐ Hazards & Hazardous Materials (4.13)	☐ Wildfire (4.24)
☐ Hydrology & Water Quality (4.14)	☐ Mandatory Findings (4.25)
☐ Land Use & Planning (4.15)	

4.3 Thresholds of Significance

Thresholds of significance are identifiable quantitative, qualitative or performance level standards of a particular environmental effect, non-compliance with which means the effect will normally be determined to be significant by a Lead Agency and compliance with which means the effect will normally be determined to be less than significant (*State CEQA Guidelines* §15064.7(a)).

With the exception of Transportation Vehicle Miles Traveled (VMT), the County has not adopted specific thresholds of significance and rather relies upon the specific questions relating to the topical environmental factors listed in Appendix G of the *State CEQA Guidelines* to assist in the determination of a potentially significant impact. The Orange County Board of Supervisors adopted County VMT guidelines at its November 17, 2020, meeting pursuant to SB 743 to include VMT analysis methodology and thresholds. The implementation of SB 743 requires CEQA documents to include VMT analysis for land use projects.

4.4 Environmental Baseline

To adequately determine the significance of a potential environmental impact, the environmental baseline must be established. *State CEQA Guidelines* Section 15125(a) states in pertinent part that the existing environmental setting will normally constitute the baseline physical conditions that will assist the County in a determining if an impact is significant.

Therefore, the environmental baseline for this project constitutes the existing physical conditions as they exist at the time that the environmental process commenced.

4.5 *Aesthetics*

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

Question 4.5 a): Have a substantial adverse effect on a scenic vista?

Response to Question 4.5 a):

Less than Significant Impact. The project site is located in a relatively flat, urbanized portion of the City of Orange, directly west of I-5. The surrounding area contains a large cluster of government/institutional uses known as the Manchester Complex, which includes the University of California Irvine (UCI) Medical Center, the Orangewood Children's Home, the Theo Lacy Jail, the Lamoreaux Justice Center, and various related buildings.

Viewsheds refer to the visual qualities of a geographical area that are defined by the horizon, topography, and other natural features that give an area its visual boundary and context, or by development that has become a prominent visual component of the area. Similarly, a scenic vista is defined as a viewpoint that provides expansive views of a highly valued landscape for the benefit of the public. Aesthetic components of a scenic vista generally include (1) scenic quality, (2) sensitivity level, and (3) view access. According to the Natural Resources Element of the City of Orange General Plan, portions of the City are characterized

by scenic vistas that include hillsides, ridgelines, or open space areas that provide a unifying visual backdrop to the urban environment. The City's General Plan identifies the largely undeveloped Santiago Hills and East Orange portions of the City as scenic resources, and Santiago Canyon Road as a planned City Scenic highway, which the City aims to preserve.[1] These scenic resources are located in the eastern portion of the City, approximately 11 miles east of the project site. The scenic views associated with these resources are not visible from the project site due to distance, terrain, and intervening urban development.

The project site is directly adjacent to the Santa Ana River Trail, which is designated as an open space corridor and potential scenic resource by the Orange County General Plan Resources Element. However, the proposed project would be constructed within the footprint of the existing Campus, which currently consists of several buildings and a secure fenced perimeter. Existing views of the project site from the Santa Ana River Trail are partially obstructed by a brick wall. The southeast portion of the Campus is partially visible, including the existing MRC. Demolition and construction associated with the proposed project would not impact the MRC, and therefore any existing views of the project site from the Santa Ana River Trail would not change.

The project site itself is currently developed with the Campus, generally consisting of institutional structures and minimal landscaping. In comparison, the proposed project involves architectural design elements and a comprehensive landscaping plan intended to soften the institutional appearance of the proposed structures and improve their aesthetic appearance. Therefore, demolition and development activities associated with the proposed project would have less than significant impacts related to scenic vistas, and no mitigation would be required.

Question 4.5 b): Substantially damage scenic resources, including, but not limited to, trees, rock outcroppings, and historic buildings within a state scenic highway?

Response to Question 4.5 b):

No Impact. The California Department of Transportation (Caltrans) manages the State Scenic Highway Program (see Streets and Highways Code Sections 260-263). The State legislature created the State Scenic Highway Program to conserve and protect scenic highways and adjacent corridors from changes that would diminish their aesthetic value. A State highway may be designated scenic depending on how much of the natural landscape can be seen by travelers, the scenic quality of the landscape, and the extent to which development intrudes upon the traveler's enjoyment of the view. A scenic corridor is the land generally adjacent to and visible from a highway and is identified using a motorist's line of vision. A reasonable boundary is selected when the view extends to the distant horizon.

State Scenic Highways can be classified as either "eligible" or "officially designated." The nearest designated State Scenic Highway to the project site is California State Route 91 (SR-91), which is located approximately 5.4 miles northeast of the project site.[2] The project site is not visible from this designated State Scenic Highway. Therefore, the proposed project would have no impact on scenic resources

[1] City of Orange. 2015. City of Orange General Plan. Natural Resources Element. Visual and Aesthetic Resources. Website: https://www.cityoforange.org/home/showpublisheddocument/210/637698172559270000 (accessed October 2024).

[2] California Department of Transportation (Caltrans). 2019. State Scenic Highway Mapper. Website: https://www.arcgis.com/apps/webappviewer/index.html?id=465dfd3d807c46cc8e8057116f1aacaa (accessed October 2024).

including trees, rock outcroppings, and historic buildings within a State Scenic Highway, and no mitigation would be required.

Question 4.5 c): 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?

Response to Question 4.5 c):

Less than Significant Impact.

Site Character and Quality. The project site is located in an urbanized portion of the City of Orange and is currently developed with the Campus, including various institutional buildings, two athletic fields, paved walkways, minimal landscaping, hardscaping, and a secure perimeter fence. The proposed project intends to demolish several of these buildings and replace them with the YTC and associated facilities.

As previously stated, the proposed project intends to improve aesthetic and visual quality within the project site by implementing more extensive landscaping, hardscaping, and outdoor improvements. Additionally, all proposed buildings would replicate a campus-like environment, straying from the existing institutional character, and replicating the architectural and aesthetic design of the recently developed MRC.

All proposed development would be consistent with the policies set forth in the City of Orange's General Plan Land Use designation of Public Facilities and Institutions (PFI),[3] and the design guidelines and development standards of the City of Orange's Public Institution (P-I) zoning district.[4] As the proposed project intends to improve the visual character and quality of the project site, there would be a positive impact on site character and quality. Therefore, the proposed project's impacts related to site character and quality would be less than significant, and no mitigation is required.

Surrounding Character and Quality. The area immediately surrounding the project site is heavily characterized by public institutional uses, including the UCI Medical Center, Orangewood Children's Home, and the Lamoreaux Justice Center complex. Surface and garage parking areas and I-5 are also located in the surrounding area, as is the Santa Ana River and an adjacent Class 1 bicycle path. The project site and surrounding area are in an area designated for Public Facilities and Institutional land uses by the City of Orange General Plan and the Public Institution zoning district. The proposed land uses are consistent with both the applicable General Plan land use and zoning.

From the north, the project site's secure perimeter fence is visible from Service Way South. From the east, views of the proposed project's secure perimeter and obstructed views of existing Campus structures may be seen from Sidwell Way, whereas existing soundwalls on the west side of I-5 obscure visibility to the project site. From the south, intervening structures associated with the Orangewood Children's Home obstruct visibility to the project site. State Route 22 (SR-22), located approximately 0.3 mile south of the project site, offers partially obstructed views of the Lamoreaux Justice Center, while visibility to the

[3] City of Orange. 2015. City of Orange General Plan Land Use Element. Website: https://www.cityoforange.org/home/showpublisheddocument/208/637698172555630000 (accessed October 2024).

[4] City of Orange. City of Orange Zoning Map. Website: https://www.cityoforange.org/home/showpublisheddocument/40/637707607413300000 (accessed October 2024).

project site is concealed by existing infrastructure at the Theo Lacy Facility. Views of the project site's secure perimeter, parking lots, Youth Leadership Academy, and Independent Living Units can be seen from Justice Center Way, adjacent to the southern portion of the facility.

As the proposed project would demolish several of the structures on the project site and replace them with improved facilities that would feature extensive landscaping, improved architectural design, and an aesthetic shift from an institutional to a campus-like environment, the visual character and quality of public views of the project site would also be improved upon project completion. Therefore, public views around and from surrounding areas would not be adversely impacted by the proposed project, and impacts would be less than significant. No mitigation is required.

Question 4.5 d): Create a new source of substantial light or glare, which would adversely affect day or nighttime views in the area?

Response to Question 4.5 d):

Less than Significant Impact. Under existing conditions, the project site produces exterior light and glare from buildings and security lighting. Existing sources of light in the project site vicinity are typical of commercial areas of the City and include streetlights and headlights on nearby roadways, building facade and interior lighting, and pole-mounted lighting in pedestrian and parking areas of adjacent developments. Lighting from existing surrounding development within the City also contributes to the background lighting in the project vicinity.

The proposed project would include the installation of new indoor and outdoor lighting throughout the facility, including interior lighting, site lighting, emergency egress lighting, and lighting controls. These light sources would be comparable to lighting under existing conditions and would replace some of the lighting associated with the current uses on site. All new lighting would be LED luminaires designed to minimize light pollution and glare while also meeting the light distribution requirements for the area. In addition, all exterior lighting and egress emergency lighting would be in compliance with the latest edition of the IESNA Lighting Handbook, 10th Edition (2011) and the 2025 State Building Energy Efficiency Standards (Title 24), which governs structural safety and sustainability for California's public buildings. Additionally, the proposed project would provide vandal resistant lighting and architectural exterior canopies for both architectural enhancement and daylight/glare control.

The proposed lighting sources would be similar to other lighting sources in the project site vicinity and would not generate artificial light levels that are out of character with the surrounding area, which is densely developed and characterized by a high degree of human activity and ambient light during the day and night. Further, the proposed project would comply with Section 7-9-67 of the County's Zoning Code, which states that "all lighting shall be designed and located so as to confine direct rays to the premises".[5] As such, the design of the proposed project would minimize lighting spillover toward surrounding land uses.

[5] County of Orange. 2024. County of Orange Comprehensive Zoning Code. July 25. Website: https://ocds.ocpublicworks.com/sites/ocpwocds/files/2024-08/Adopted%20Orange%20County%20Zoning%20Code%207-25-24.pdf (accessed November 2024).

In addition to light fixture design considerations as discussed above, landscaping associated with the proposed project would also be designed in a manner to shield surrounding land uses from potential glare. With adherence to the Orange County Zoning Code and given the illumination of the project site under existing conditions, the proposed project would not create a new source of substantial light or glare that would adversely affect day or nighttime views in the surrounding urban area. Impacts would be less than significant, and no mitigation is required.

4.6 *Agriculture and Forestry Resources*

In determining whether impacts to agricultural resources are significant environmental effects, lead agencies may refer to the California Agricultural Land Evaluation and Site Assessment Model (1997) prepared by the California Dept. of Conservation as an optional model to use in assessing impacts on agriculture and farmland. In determining whether impacts to forest resources, including timberland, are significant environmental effects, lead agencies may refer to information compiled by the California Department of Forestry and Fire Protection regarding the state's inventory of forest land, including the Forest and Range Assessment Project and the Forest Legacy Assessment project; and forest carbon measurement methodology provided in Forest Protocols adopted by the California Air Resources Board. Would the project:	**Potentially Significant Impact**	**Less than Significant With Mitigation Incorporated**	**Less than Significant Impact**	**No Impact**
a) Convert Prime Farmland, Unique Farmland, or Farmland of Statewide Importance (Farmland), as shown on the maps prepared pursuant to the Farmland Mapping and Monitoring Program of the California Resources Agency, to non-agricultural use?	☐	☐	☐	☒
b) Conflict with existing zoning for agricultural use, or a Williamson Act contract?	☐	☐	☐	☒
c) Conflict with existing zoning for, or cause rezoning of, forest land (as defined in Public Resources Code 12220 (g)), timberland (as defined by Public Resources Code Section 4526), or timberland zoned Timberland Production (as defined by Government Code Section 51004)g))?	☐	☐	☐	☒
d) Result in the loss of forest land or conversion of forest land to non-forest use?	☐	☐	☐	☒

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

Question 4.6 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?

Response to Question 4.6 a):

No Impact. The project site is located in an urbanized and developed portion of the City of Orange. Pursuant to Government Code Section 65570, the California Department of Conservation Farmland Mapping and Monitoring Program (FMMP) compiles consistent, timely, and accurate data to decision makers for use in planning for the present and future of California's agricultural land resources. The FMMP provides maps and statistical data to the public, academia, and local, State, and federal governments on the nature, location, and extent of farmland, grazing land, and urban built-up areas in the State. According to the California Department of Conservation's California Important Farmland Finder, the project site is designated as Urban and Built-Up Land.[6] The project site does not contain any agricultural soils and is not designated as Prime Farmland, Unique Farmland, or Farmland of Statewide Importance. Therefore, the proposed project would not convert any existing Farmland to a non-agricultural use. No impact would occur, and no mitigation is necessary.

Question 4.6 b): Conflict with existing zoning for agricultural use, or a Williamson Act contract?

Response to Question 4.6 b):

No Impact. The California Land Conservation Act of 1965, commonly referred to as the Williamson Act, is a nonmandated State program, administered by counties and cities to preserve agricultural land and discourage the premature conversion of agricultural land to urban uses. According to the California Department of Conservation California Williamson Act Enrollment Finder, Orange County did not report any Williamson Act data in 2023.[7] Therefore, the project site does not conflict with any agricultural zoning or Williamson Act contract sites. No impact would occur, and no mitigation is necessary.

Question 4.6 c): Conflict with existing zoning for, or cause rezoning of, forest land (as defined in Public Resources Code 12220 (g)), timberland (as defined by Public Resources Code Section 4526), or timberland zoned Timberland Production (as defined by Government Code Section 51004)(g))?

[6] California Department of Conservation. n.d. California Important Farmland Finder. Website: https://maps.conservation.ca.gov/dlrp/ciff/ (accessed October 2024).

[7] California Department of Conservation. n.d. California Williamson Act Enrollment Finder. DLRP Important Farmland Finder. Website: https://maps.conservation.ca.gov/dlrp/WilliamsonAct/App/index.html (accessed October 31, 2024).

Response to Question 4.6 c):

No Impact. The project site is not located within an area zoned for forest land, timberland, or timberland zoned Timberland Production, nor would it result in rezoning of these resources. Therefore, no impact would occur, and no mitigation is necessary.

Question 4.6 d): Result in the loss of forest land or conversion of forest land to non-forest use?

Response to Question 4.6 d):

No Impact. As described above, the project site is urbanized and developed and does not contain forest land. Accordingly, the proposed project would not result in the loss or conversion of forest land to non-forest use. No impact would occur, and no mitigation is necessary.

Question 4.6 e): Involve other changes in the existing environment which, due to their location or nature, could result in conversion of Farmland to non-agricultural use or forest land to non-forest use?

Response to Question 4.6 e):

No Impact. Refer to the responses above. The proposed project would not affect any Farmland or forest land. No impact would occur, and no mitigation is necessary.

4.7 *Air Quality*

Where available, the significance criteria established by the applicable air quality management district or air pollution control district may be relied upon to make the following determinations. Would the project:	**Potentially Significant Impact**	**Less than Significant With Mitigation Incorporated**	**Less than Significant Impact**	**No Impact**
a) Conflict with or obstruct implementation of the applicable air quality plan?	☐	☐	☒	☐
b) Result in a cumulatively considerable net increase of any criteria pollutant for which the project region is non-attainment under an applicable federal or state ambient air quality standard?	☐	☐	☒	☐
c) Expose sensitive receptors to substantial pollutant concentrations?	☐	☐	☒	☐
d) Result in other emissions (such as those leading to odors affecting a substantial number of people?	☐	☐	☒	☐

The project site is within the South Coast Air Basin (Basin). The South Coast Air Quality Management District (SCAQMD) is the regional government agency that monitors and regulates air pollution within the Basin. The federal Clean Air Act and the California Clean Air Act mandate the control and reduction of specific air pollutants. Under these respective laws, the United States Environmental Protection Agency (USEPA) and the California Air Resources Board (CARB) have established ambient air quality standards for specific "criteria" pollutants, designed to protect public health and welfare. Primary criteria pollutants include carbon monoxide (CO), volatile organic compounds (VOC), nitrogen oxides (NO_X), particulate matter that is less than 10 microns in diameter (PM_{10}), sulfur dioxide (SO_2), and lead (Pb). Secondary criteria pollutants include ozone (O_3), and particulate matter that is less than 2.5 microns in diameter ($PM_{2.5}$). The ambient air quality standard for each criteria pollutant represents the level that is considered safe to the public and avoids specific adverse health effects associated with each criteria pollutant.

The Basin is in nonattainment of the federal and State standards for O_3 and $PM_{2.5}$, and in nonattainment of the State PM_{10} standard. In addition, the Basin is in attainment/maintenance of the federal PM_{10}, CO, SO_2, and nitrogen dioxide (NO_2) standards. The SCAQMD has established project-level thresholds for VOC, NO_X, CO, SO_2, PM_{10}, and $PM_{2.5}$, shown in Table 4.7.A. The SCAQMD considers any project in the Basin with construction- or operation-related emissions that exceed any of the emission thresholds shown in Table 4.7.A to have potentially significant impacts.

Table 4.7.A: SCAQMD Construction and Operation Thresholds of Significance

Emission Source	Pollutant Emissions Threshold (lbs/day)					
	VOCs	NO_X	CO	SO_2	PM_{10}	$PM_{2.5}$
Construction Thresholds	75	100	550	150	150	55
Operation Thresholds	55	55	550	150	150	55

Source: South Coast Air Quality Management District (1993).
CO = carbon monoxide
lbs/day = pounds per day
NO_X = nitrogen oxides
$PM_{2.5}$ = particulate matter less than 2.5 microns in size
PM_{10} = particulate matter less than 10 microns in size
SCAQMD = South Coast Air Quality Management District
SO_2 = sulfur dioxide
VOC = volatile organic compounds

In addition, the SCAQMD published its Final Localized Significance Threshold Methodology in June 2003 (updated July 2008), recommending that all air quality analyses include an assessment of air quality impacts to nearby sensitive receptors.[8] This guidance was used to analyze potential localized air quality impacts associated with construction of the proposed project. Localized significance thresholds (LSTs) have been established based on the size or total area of the emission source, the ambient air quality in the source receptor area, and the distance between the project and the nearest sensitive receptor. The SCAQMD defines structures that house persons (e.g., children, the elderly, persons with pre-existing respiratory or cardiovascular illness, and athletes and others who engage in frequent exercise) or places where they gather as sensitive receptors (i.e., residences, schools, hospitals, playgrounds, child-care centers, convalescent centers, retirement homes, and athletic fields). The closest sensitive receptors to the project site include medical facilities (UC Irvine Medical Center) which are located approximately 100 ft north of the northern boundary of the project site. Other sensitive receptors include the Orangewood Children's Home located approximately 470 ft south of the southern boundary of the project site.

LSTs are based on the ambient concentrations of a particular pollutant within the project Source Receptor Area (SRA) and the distance to the nearest sensitive receptor. For the proposed project, the appropriate SRA for the LST is Central Orange County (SRA 17). The SCAQMD provides LST screening tables for 25-, 50-, 100-, 200-, and 500-meter source-receptor distances. As mentioned above, the closest sensitive receptor to the project are the medical facilities (UC Irvine Medical Center) located approximately 100 ft north (30 meters) of the project site. Based on the anticipated construction equipment, it is assumed that the maximum daily disturbed area for the proposed project would be 5 acres.[9] In addition, the project site is 17 acres; therefore, the operational LST is based on the maximum 5.0-acre threshold. Table 4.7.B shows the emissions thresholds that would apply based on the project size and distance to nearby receptors during project construction and operation, respectively.

Table 4.7.B: SCAQMD Localized Significance Thresholds

Emissions Source	Pollutant Emissions Threshold (lbs/day)			
	NO_X	CO	PM_{10}	$PM_{2.5}$
Construction (5.0-acres, 100-foot distance)	180.0	1,349.0	18.0	7.4
Operations (5.0-acres, 100-foot distance)	180.0	1,349.0	4.4	2.2

Source: Final Localized Significance Threshold Methodology (SCAQMD 2008).
CO = carbon monoxide
lbs/day = pounds per day
NO_X = nitrogen oxides
PM_{10} = particulate matter less than 10 microns in size
$PM_{2.5}$ = particulate matter less than 2.5 microns in size
SCAQMD = South Coast Air Quality Management District

[8] South Coast Air Quality Management District (SCAQMD). 2008. Final Localized Significance Threshold Methodology. July. Website: http://www.aqmd.gov/docs/default-source/ceqa/handbook/localized-significance-thresholds/final-lst-methodology-document.pdf (accessed November 2024).

[9] SCAQMD. n.d. Fact Sheet for Applying CalEEMod to Localized Significance Thresholds. Website: http://www.aqmd.gov/docs/default-source/ceqa/handbook/localized-significance-thresholds/caleemod- guidance.pdf (accessed November 2024).

Question 4.7 a): Conflict with or obstruct implementation of the applicable air quality plan?

Response to Question 4.7 a):

Less than Significant Impact. An Air Quality Management Plan (AQMP) describes air pollution control strategies to be undertaken by a city or county in a region classified as a nonattainment area to meet the requirements of the federal Clean Air Act. The main purpose of an AQMP is to bring an area into attainment of federal and State ambient air quality standards (AAQS). The Basin is in nonattainment for the federal and State standards for O_3 and $PM_{2.5}$. Therefore, the Basin is classified as a nonattainment area and an AQMP is required. The applicable air quality plan is the SCAQMD's adopted 2022 AQMP.[10] The AQMP is based on regional growth projections developed by the Southern California Association of Governments (SCAG).

A consistency determination plays an essential role in local agency project review by linking local planning and unique individual projects to air quality plans. A consistency determination fulfills the CEQA goal of fully informing local agency decision-makers of the environmental costs of the project under consideration at a stage early enough to ensure that air quality concerns are addressed. Only new or amended General Plan elements, Specific Plans, and significantly unique projects need to undergo a consistency review given that the air quality plan strategy is based on projections from local General Plans.

The proposed project would include the demolition of 95,589 sf of existing uses to construct a new Youth Transition Center (YTC). The YTC would include housing for youth, dining, culinary, education, and vocational spaces along with recreational exterior areas for combined total of 117,905 sf of building area. The proposed project is not considered a project of statewide, regional, or area-wide significance (e.g., large-scale projects such as airports, electrical generating facilities, petroleum and gas refineries, residential developments of more than 500 dwelling units, and shopping centers or business establishments employing more than 1,000 persons or encompassing more than 500,000 sf of floor space) as defined in the California Code of Regulations (Title 14, Division 6, Chapter 3, Article 13, §15206(b)). Because the proposed project would not be defined as a regionally significant project under CEQA, it does not meet SCAG's Intergovernmental Review criteria.

The County's General Plan is consistent with the SCAG Regional Comprehensive Plan Guidelines and the SCAQMD AQMP. Pursuant to the methodology provided in the SCAQMD *CEQA Air Quality Handbook,* consistency with the Basin 2022 AQMP is affirmed when a project: (1) would not increase the frequency or severity of an air quality standards violation or cause a new violation and (2) is consistent with the growth assumptions in the AQMP. Consistency review is presented as follows:

1. The proposed project would result in short-term construction and long-term operational pollutant emissions that are all less than the CEQA significance emissions thresholds established by SCAQMD, as demonstrated in Response 4.7(b), below. Therefore, the proposed project would not result in an increase in the frequency or severity of an air quality standards violation or cause a new air quality standards violation.

[10] SCAQMD. 2022 Air Quality Management Plan. December 2. Website: aqmd.gov/docs/default-source/clean-air-plans/air-quality-management-plans/2022-air-quality-management-plan/final-2022-aqmp/final-2022-aqmp.pdf?sfvrsn=16 (accessed November 2024).

2. The *CEQA Air Quality Handbook* indicates that consistency with AQMP growth assumptions must be analyzed for new or amended General Plan elements, Specific Plans, and significant projects. Significant projects include airports, electrical generating facilities, petroleum and gas refineries, designation of oil drilling districts, water ports, solid waste disposal sites, and offshore drilling facilities. The proposed project would involve the construction of a new YTC and associated uses, totaling 117,905 sf of building area. Therefore, the proposed project would not be defined as significant. In addition, the proposed project would not require a change to the General Plan land use designation or the current zoning, and would be consistent with the County's General Plan and Zoning Ordinance.

Based on the consistency analysis presented above, the proposed project would not conflict with or obstruct implementation of the applicable air quality plan. Impacts would be less than significant, and no mitigation is required.

Question 4.7 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?

Response to Question 4.7 b):

Less than Significant Impact. As identified above, the Basin is currently designated as being in nonattainment of the federal and State standards for O_3 and $PM_{2.5}$. The Basin's nonattainment status is attributed to the region's development history. Past, present, and future development projects contribute to the region's adverse air quality impacts on a cumulative basis. By its very nature, air pollution is largely a cumulative impact. No single project is sufficient in size to, by itself, to result in nonattainment of AAQS. Instead, a project's individual emissions contribute to existing cumulatively significant adverse air quality impacts. If a project's contribution to the cumulative impact is considerable, then the project's impact on air quality would be considered significant.

In developing thresholds of significance for air pollutants, the SCAQMD considered the emission levels for which a project's individual emissions would be cumulatively considerable. If a project exceeds the identified SCAQMD significance thresholds identified in Table 4.7.A, its emissions would be cumulatively considerable, resulting in significant adverse air quality impacts to the region's existing air quality conditions. Therefore, additional analysis to assess cumulative impacts is not necessary. The following analysis assesses the potential project-level air quality impacts associated with construction and operation of the proposed project.

Construction Emissions. During construction, short-term degradation of air quality may occur due to the release of particulate matter emissions (i.e., fugitive dust) generated by site preparation and grading activities. Emissions from construction equipment are also anticipated and would include CO, NO_X, VOC, directly emitted $PM_{2.5}$ or PM_{10}, and toxic air contaminants such as diesel exhaust particulate matter.

Project construction activities would include demolition, site preparation, grading, building construction, architectural coating, and paving activities. Construction-related effects on air quality from the proposed project would be greatest during the site preparation phase due to the disturbance of soils. If not properly controlled, these activities would temporarily generate particulate emissions. Sources of fugitive dust would include disturbed soils at the construction site. Unless properly controlled, vehicles leaving the site would deposit dirt and mud on local streets, which could be an additional source of airborne dust after it dries. PM_{10} emissions would vary from day to day, depending on the nature and magnitude of construction

activity and local weather conditions. PM_{10} emissions would depend on soil moisture, silt content of soil, wind speed, and amount of operating equipment. Larger dust particles would settle near the source, whereas fine particles would be dispersed over greater distances from the construction site.

Water or other soil stabilizers can be used to control dust, resulting in emission reductions of 50 percent or more. SCAQMD has established Rule 403: Fugitive Dust, which would require the project Applicant to implement measures that would reduce the amount of particulate matter generated during the construction period. The Rule 403 measures that were incorporated in this analysis include:[11]

- Water active sites at least three times daily (locations where grading is to occur shall be thoroughly watered prior to earthmoving).

- Cover all trucks hauling dirt, sand, soil, or other loose materials, or maintain at least 2 feet (0.6 meter) of freeboard (vertical space between the top of the load and the top of the trailer) in accordance with the requirements of California Vehicle Code Section 23114.

- Reduce traffic speeds on all unpaved roads to 15 miles per hour or less.

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

Construction emissions were estimated for the project using the California Emissions Estimator Model (CalEEMod) version 2022.1. As described in Chapter 3, Project Description, construction of the proposed project would occur in three phases. Phase 1 of the proposed project would include the demolition of approximately 65,589 sf and the construction of the five living units, educational buildings, culinary kitchen, transitional housing, and the administration/medical health buildings. Phase 2 of the proposed project would include the demolition of approximately 30,027 sf and the construction of the long-term housing, classrooms/library, and independent living buildings. Phase 3 of the proposed project is still being designed and is tentatively anticipated to consist of tenant improvements; however, no demolition or exterior building construction is currently proposed under Phase 3. Construction of Phase 1 is anticipated to begin in February 2025 and occur for approximately 30 months, ending in August of 2027. The construction schedule for Phase 2 has not yet been determined. Therefore, as a conservative assumption, this analysis assumes buildout of the proposed project over the course of Phase 1 (30 months). This represents a conservative analysis, because if the proposed construction activities should occur at a later timeframe, estimated emissions would be expected to decrease in the future due to technological advances and the implementation of forthcoming regulatory requirements. In addition, this analysis assumes compliance with SCAQMD Rule 403 and Rule 1113 measures. SCAQMD Rule 1113 addresses emissions from use of architectural coatings. This analysis also assumes the use of Tier 2 construction equipment. It is not anticipated that the import or export of soil would be necessary under the proposed project, as grading quantities are expected to be balanced on site. All other construction details are not yet known; therefore, default assumptions (e.g., construction worker and truck trips, fleet activities,

[11] SCAQMD. Rule 403: Fugitive Dust. Website: www.aqmd.gov/docs/default-source/rule-book/rule-iv/rule-403.pdf (accessed November 2024).

construction equipment) from CalEEMod were used. Construction emissions are summarized in Table 4.7.C below. Appendix A provides CalEEMod output sheets.

Table 4.7.C: Short-Term Regional Construction Emissions

Construction Year	Total Daily Regional Pollutant Emissions (lbs/day)							
	VOCs	NO_X	CO	SO_X	Fugitive PM_{10}	Exhaust PM_{10}	Fugitive $PM_{2.5}$	Exhaust $PM_{2.5}$
Demolition	0.8	25.8	19.3	<0.1	1.1	0.8	0.2	1.2
Site Preparation	1.1	39.9	29.1	<0.1	7.9	1.1	4.0	0.5
Grading	1.4	48.9	36.5	<0.1	3.9	1.4	1.5	1.2
Building Construction	0.8	19.4	16.7	<0.1	0.6	0.7	0.2	0.6
Paving	0.6	13.3	11.2	<0.1	0.2	0.6	<0.1	0.5
Architectural Coating	16.5	1.1	1.2	<0.1	0.1	0.1	<0.1	0.1
Peak Daily Emissions	**17.3**	**68.3**	**53.2**	**<0.1**	**10.9**		**5.9**	
SCAQMD Threshold	**75.0**	**100.0**	**550.0**	**150.0**	**150.0**		**55.0**	
Significant?	**No**	**No**	**No**	**No**	**No**		**No**	

Source: Compiled by LSA (November 2024).
Note: Peak daily emissions of VOCs occurred during the overlapping of building construction and architectural coating phases. Peak daily emissions of NO_X and CO emissions occurred during the overlapping of building construction and grading phases. Peak PM emissions occurred during the overlapping of demolition and site preparation phases.
CO = carbon monoxide
lbs/day = pounds per day
NO_X = nitrogen oxides
$PM_{2.5}$ = particulate matter less than 2.5 microns in size
PM_{10} = particulate matter less than 10 microns in size
SCAQMD = South Coast Air Quality Management District
SO_X = sulfur oxides
VOCs = volatile organic compounds

As shown in Table 4.7.C, construction emissions associated with the project would not exceed the SCAQMD's thresholds for VOC, NO_X, CO, SO_X, $PM_{2.5}$, and PM_{10}. Therefore, construction of the proposed project would not result in a cumulatively considerable increase of any criteria pollutant for which the project region is in nonattainment under an applicable federal or State ambient air quality standard. Impacts would be less than significant, and no mitigation is required.

Operational Emissions. Long-term air pollutant emissions associated with operation of the proposed project include emissions from mobile, energy, area, and stationary sources, as discussed below. The quantity of emissions is the product of usage intensity (i.e., the amount of natural gas) and the emission factor of the fuel source.

Mobile source emissions include ROG and NO_X emissions that contribute to the formation of ozone. Additionally, PM_{10} emissions result from running exhaust, tire and brake wear, and the entrainment of dust into the atmosphere from vehicles traveling on paved roadways.

Energy-source emissions result from activities in buildings that use natural gas. The quantity of emissions is the product of usage intensity (i.e., the amount of natural gas) and the emission factor of the fuel source. The proposed project would include the use of natural gas, limited to the culinary kitchen. All the remaining buildings would be designed to be all electric.

Area source emissions associated with the project would include emissions from the use of landscaping equipment and consumer products. Stationary source emissions would be associated with the use of the backup diesel generator.

Long-term operational emissions associated with the proposed project were calculated using CalEEMod. The proposed project would include the demolition of 95,589 sf of existing uses to construct a new YTC, which would include housing for youth, dining, culinary, education, and vocational spaces along with recreational exterior areas for combined total of 117,905 sf of building area. Therefore, the proposed project analysis was conducted using land use codes *Apartments Mid Rise, Library, General Office Building, Medical Office Building, High Turnover (Sit Down Restaurant), City Park*, and *Other Asphalt Uses.* The *General Office Building* land use was used to represent the proposed YTC buildings, and the *City Park* land use was used to represent the proposed landscape area. Trip generation rates used in CalEEMod for the project were based on Section 4.21, Transportation, which determined that the proposed project would generate a net increase of 130 average daily trips over existing conditions. The proposed project would include a 617-horsepower diesel generator that would run for approximately 50 hours per year, which was also included in CalEEMod. As mentioned above, natural gas would be limited to the culinary kitchen, with the rest of the buildings designed to be all electric, which was included in CalEEMod. The proposed project would include water efficient, drought tolerant landscaping, and low flow fixtures, which was also included in CalEEMod. When project-specific data were not available, default assumptions from CalEEMod were used to estimate project emissions. Operational emissions associated with the proposed project are summarized in Table 4.7.D below. Appendix A provides CalEEMod output sheets.

Table 4.7.D: Project Operational Emissions

Emission Type	Pollutant Emissions (lbs/day)					
	VOCs	**NO_X**	**CO**	**SO_X**	**PM_{10}**	**$PM_{2.5}$**
Mobile Sources	0.4	0.3	3.5	<0.1	0.9	0.2
Area Sources	3.2	<0.1	4.0	<0.1	<0.1	<0.1
Energy Sources	<0.1	0.1	0.1	<0.1	<0.1	<0.1
Stationary Sources	0.1	0.4	0.4	<0.1	<0.1	<0.1
Total Project Emissions	**3.7**	**0.8**	**8.0**	**<0.1**	**0.9**	**0.2**
SCAQMD Threshold	**55.0**	**55.0**	**550.0**	**150.0**	**150.0**	**55.0**
Exceeds Threshold?	**No**	**No**	**No**	**No**	**No**	**No**

Source: Compiled by LSA (November 2024).
CO = carbon monoxide
lbs/day = pounds per day
NO_X = nitrogen oxides
$PM_{2.5}$ = particulate matter less than 2.5 microns in size
PM_{10} = particulate matter less than 10 microns in size
SCAQMD = South Coast Air Quality Management District
SO_X = sulfur oxides
VOCs = volatile organic compounds

As shown in Table 4.7.D, the proposed project would not exceed the significance criteria for daily VOC, NO_X, CO, SO_X, PM_{10}, or $PM_{2.5}$ emissions. Therefore, operation of the proposed project would not result in a cumulatively considerable net increase of any criteria pollutant for which the project region is in nonattainment under an applicable federal or State ambient air quality standard. Impacts would be less than significant, and no mitigation is required.

Long Term Microscale (CO Hot Spot) Analysis. Although the Basin is designated as in attainment/ maintenance for CO AAQS, localized CO concentrations are evaluated to determine whether project-related CO impacts would exceed State or national AAQS. This is because vehicular trips associated with the proposed project could contribute to congestion at intersections and along roadway segments in the project vicinity. Localized air quality impacts would occur when emissions from vehicular traffic increase as a result of the proposed project. The primary mobile-source pollutant of local concern is CO, a direct function of vehicle idling time and, thus, of traffic flow conditions. CO transport is extremely limited; under normal meteorological conditions, CO disperses rapidly with distance from the source. However, under certain extreme meteorological conditions, CO concentrations near a congested roadway or intersection

may reach unhealthful levels, affecting local sensitive receptors (e.g., residents, schoolchildren, the elderly, and hospital patients). Typically, high CO concentrations are associated with roadways or intersections operating at unacceptable levels of service or with extremely high traffic volumes. In areas with high ambient background CO concentrations, modeling is recommended to determine a project's effect on local CO levels.

An assessment of project-related impacts on localized ambient air quality requires that future ambient air quality levels be projected. Existing CO concentrations in the immediate vicinity of the project site are not available. Ambient CO levels monitored at the Anaheim air quality monitoring station located at 812 West Vermont Street, the closest station to the project site, showed a highest recorded 1-hour concentration of 2.5 parts per million (ppm) (the State standard is 20 ppm) and a highest 8-hour concentration of 1.9 ppm (the State standard is 9 ppm) during the past 3 years. The highest CO concentrations would normally occur during peak traffic hours; therefore, CO impacts calculated under peak traffic conditions represent a worst-case analysis.

As discussed in Section 4.21, Transportation, the proposed project would generate 21 new AM peak hour trips and 16 new PM peak-hour trips. As the proposed project would not generate 100 or more AM or PM peak hour trips, it is assumed that the addition of the proposed project traffic would not contribute substantial traffic volumes to nearby intersections. Additionally, the proposed project is defined as a public institution providing a broad range of rehabilitative treatment and programs for resident youth within a consolidated facility. Therefore, the proposed project qualifies for project-type screening and is presumed to have a less than significant impact on VMT. Given the extremely low level of CO concentrations in the vicinity of the project site, and lack of traffic impacts at any intersections, project-related vehicles are not expected to contribute significantly to CO concentrations or contribute to the result of CO concentrations exceeding the State or federal CO standards. Because no CO hot spot would occur, as identified in the proposed project, there would be no project-related impacts on CO concentrations. Therefore, operation of the proposed project would not result in a cumulatively considerable net increase of any criteria pollutant for which the project region is in nonattainment under an applicable NAAQS and CAAQS, and impacts would be less than significant.

Question 4.7 c): Expose sensitive receptors to substantial pollutant concentrations?

Response to Question 4.7 c):

Less than Significant Impact. Sensitive receptors are people who have an increased sensitivity to air pollution or environmental contaminants. The SCAQMD defines structures that house persons (e.g., children, the elderly, persons with pre-existing respiratory or cardiovascular illness, and athletes and others who engage in frequent exercise) or places where they gather (i.e., residences, schools, playgrounds, child-care centers, convalescent centers, retirement homes, and athletic fields) as sensitive receptors.

As previously discussed, LSTs are based on the ambient concentrations of a particular pollutant within the project SRA and the distance to the nearest sensitive receptor. The closest sensitive receptor to the project are the medical facilities (UC Irvine Medical Center) located approximately 100 ft north of the project site. Table 4.7.E and Table 4.7.F shows the results of the LST analysis based on a 5.0-acre daily disturbance area for construction and operation of the site at a distance of 100 ft (30 meters).

Table 4.7.E: Project Localized Construction Emissions (in Pounds Per Day)

Source	NO_X	CO	PM_{10}	$PM_{2.5}$
On-Site Project Emissions	49.0	35.3	8.8	5.0
Localized Significance Threshold	**180.0**	**1,349.0**	**18.0**	**7.4**
Exceeds Threshold?	**No**	**No**	**No**	**No**

Source: Compiled by LSA (November 2024).
Note: Source Receptor Area 17, based on a 5-acre construction disturbance daily area, at a distance of 30 meters (100 feet) from the project site boundary.
CO = carbon monoxide $PM_{2.5}$ = particulate matter less than 2.5 microns in size
NO_X = nitrogen oxides PM_{10} = particulate matter less than 10 microns in size

Table 4.7.F: Project Localized Operational Emissions (in Pounds Per Day)

Source	NO_X	CO	PM_{10}	$PM_{2.5}$
On-Site Project Emissions	0.5	4.7	<0.1	<0.1
Localized Significance Threshold	**180.0**	**1,439.0**	**4.4**	**2.2**
Exceeds Threshold?	**No**	**No**	**No**	**No**

Source: Compiled by LSA (November 2024).
Note: Source Receptor Area 17, 5 acres, 30 meters (100 feet) distance; on site traffic is assumed to be 5 percent of total.
CO = carbon monoxide $PM_{2.5}$ = particulate matter less than 2.5 microns in size
NO_X = nitrogen oxides PM_{10} = particulate matter less than 10 microns in size

By design, the localized impacts analysis only includes on-site sources; however, the CalEEMod outputs do not separate on-site and off-site emissions for mobile sources. For a worst-case scenario assessment, the emissions detailed in Table 4.7.F assume all area, stationary, and energy source emissions would occur on site, and 5 percent of the project-related new mobile sources, which is an estimate of the amount of project-related on-site vehicle and truck travel, would occur on site. Considering the total trip length included in CalEEMod, the 5 percent assumption is conservative. Table 4.7.F indicates the localized operational emissions would not exceed the LSTs at nearby sensitive receptors. Therefore, the proposed operational activity would not result in a locally significant air quality impact.

As detailed in Tables 4.7.E and 4.7.F, the emission levels indicate that the project would not exceed SCAQMD LSTs during project construction or operation. The project's peak operational on-site NO_X emissions are approximately less than 1 pound per day. Due to the small size of the proposed project in relation to the overall Basin, the level of emissions is not sufficiently high to use a regional modeling program to correlate health effects on a Basin-wide level. On a regional scale, the quantity of emissions from the project is incrementally minor. Because the SCAQMD has not identified any other methods to quantify health impacts from small projects, and due to the size of the project, it is speculative to assign any specific health effects to small project-related emissions. However, based on this localized analysis, the proposed project would not expose sensitive receptors to substantial pollutant concentrations. Therefore, the project would not expose sensitive receptors to substantial levels of pollutant concentrations. Impacts would be less than significant, and no mitigation would be required.

Naturally Occurring Asbestos. The project site is located in Orange County, which is among the counties found to have serpentine and ultramafic rock in their soils.[12] However, according to the California Geological Survey, no such rock has been identified in the project site vicinity. As described above, the proposed project would demolish the existing buildings. As such, demolition may expose asbestos used

[12] California Department of Conservation (DOC). California Geological Survey. n.d. Asbestos. Website: https://www.conservation.ca.gov/cgs/minerals/mineral-hazards (accessed November 2024).

in building materials; however, the proposed project would be required to comply with SCAQMD Rule 1403: Asbestos Emissions from Demolition/Renovation Activities, which specifies requirements to limit asbestos emissions from building demolition and renovation activities through surveying, notification, asbestos-containing materials (ACM) removal procedures and scheduling, and ACM handling. Therefore, with compliance of SCAQMD Rule 1403, the potential risk for naturally occurring asbestos (NOA) during project construction is small and would be considered to be less than significant.

Based on the analysis presented above, impacts related to exposure of sensitive receptors to substantial pollutant concentrations would be less than significant, and mitigation is not required.

Question 4.7 d): Result in other emissions (such as those leading to odors affecting a substantial number of people?

Response to Question 4.7 d):

Less than Significant Impact. Heavy-duty equipment on the project site during construction would emit odors, primarily from equipment exhaust. However, the construction activity would cease after individual construction is completed. No other sources of objectionable odors have been identified for the proposed project.

SCAQMD Rule 402 regarding nuisance 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.” Once operational, the proposed uses are not anticipated to emit any objectionable odors. Therefore, the proposed project would not result in other emissions (such as those leading to odors) adversely affecting a substantial number of people. Impacts would be less than significant, and no mitigation is required.

4.8 *Biological Resources*

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

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

The following analysis is based upon information presented in the *Biological Resources Assessment* (BRA) prepared for the proposed project by LSA in November 2024, included as Appendix B to this IS/MND.

Question 4.8 a): Have a substantial adverse effect, either directly or through habitat modifications, on any species identified as a candidate, sensitive, or special status species in local or regional plans, policies, or regulations, or by the California Department of Fish and Wildlife or U.S. Fish and Wildlife Service?

Response to Question 4.8 a):

Less than Significant Impact. As discussed throughout this IS/MND, the project site is currently fully developed with an institutional complex and is generally surrounded by urban development. Nevertheless, given the existence of landscaped areas within the project site, a BRA was prepared in November of 2024. Preparation of the BRA (Appendix B to this IS/MND) involved a literature review, record search, and field surveys by qualified biologists in order to determine the existence and potential for occurrence of sensitive or special-status plant and animal species[13] within the project site or its direct vicinity. Current electronic database reviews included the California Natural Diversity Database (CNDBB) RareFind 5 tool, the Information for Planning and Consultation (IPaC) tool, and the United States Fish and Wildlife Service (USFWS) Natural Wetlands Inventory tool. In addition to these databases, the review included historic and current aerial imagery, existing environmental reports for developments in the project vicinity, and regional habitat conservation plans and local land use policies related to biological resources.

An initial field survey was conducted on November 1, 2024, and included a pedestrian review of general site conditions, vegetation, and suitability of habitat for various special-status species. In addition to the general field survey, a focused roosting bat habitat assessment was conducted on November 8, 2024, to determine the presence of potentially suitable bat roosting habitat. Because it was determined during this survey that several trees on site were identified as containing suitable roosting habitat, a follow-up nighttime acoustic and emergence survey were conducted on November 13, 2024, to determine whether bats were roosting within any of these trees. This survey involved the use of infrared light and ultrasound detection technology to observe the trees for the presence of bats.

[13] For the purposes of this analysis, the term "special-status species" refers to those species that are listed or proposed for listing under the California and Federal Endangered Species Acts (CESA and/or FESA, respectively); California Fully Protected Species; plants with a California Rare Plant Rank of 1, 2, or 3; California Species of Special Concern; and California Special Animals. It should be noted that "Species of Special Concern" and "California Special Animal" are administrative designations made by the CDFW and carry no formal legal protection status. However, Section 15380 of the *State CEQA Guidelines* indicates that these species should be included in an analysis of project impacts if they can be shown to meet the criteria of sensitivity outlined therein.

Please refer to the BRA for a full list of existing and special interest plant and animal species detected and potentially present within the Campus (biological resource study area). Vegetation within the project site was determined to largely consist of ornamental landscaping, including Bermuda grass (*Cynodon dactylon*) and various non-native tree species. The presence of these species limits the potential for native vegetation growth within the project site. Wildlife within the project site included various bird species as well as the striped skunk (*Mephitis mephitis).* In addition, the Mexican free-tailed bat (*Tadarida brasiliensis mexicana*) and hoary bat (*Lasiurus cinereus*) were observed on site during the nighttime survey but are not presumed to be roosting within the project site.

Ultimately, the analysis presented in the BRA revealed 38 special-status species with the potential to occur within the biological resource study area for the project site. Of these 38 species, 13 are federally/State listed. However, none of these 13 species are considered to have the potential to occur within the project site. Of the remaining 25 non-listed special-status species, 22 are considered absent due to lack of suitable habitat. The remaining three species are listed below:

- Cooper's hawk (*Accipiter cooperii*);
- Peregrine falcon (*Falco peregrinus anatum*); and
- Yuma myotis (*Myotis yumanensis*).

However, according to the BRA, these three species have a low probability to occur within the project site. Due to the highly developed nature of the project site and surrounding development, the BRA anticipates that impacts from the project would have a less than significant effect on threatened, endangered, and non-listed special-status species with adherence to federal and State regulations, as discussed further below.

Nesting Birds. Nesting bird species, including special-status species identified in Appendix B of the BRA, with potential to occur (i.e., burrowing owl and black-tailed gnatcatcher) are protected by California Fish and Game Code Sections 3503, 3503.5, and 3800, and by the Migratory Bird Treaty Act (MBTA) (16 USC 703–711). These laws regulate the take, possession, or destruction of the nest or eggs of any migratory bird or bird of prey. However, the USFWS has recently determined that the MBTA should apply only to "…affirmative actions that have as their purpose the taking or killing of migratory birds, their nests, or their eggs"[14] and will not be applied to incidental take of migratory birds pursuant to otherwise lawful activities.

In compliance with the regulations discussed above, the BRA recommends that any vegetation removal activities occurring under the proposed project be conducted outside the general bird nesting season (February 15 through August 31), as discussed in Regulatory Compliance Measure (RCM) BIO-1. Pursuant to RCM BIO-1, if vegetation is removed during the nesting bird season, a pre-construction nesting bird survey by a qualified biologist is required prior to vegetation removal. Compliance with RCM BIO-1 would ensure that potential impacts to nesting birds would be less than significant.

Bats. Various regulations afford protections to bats, which are classified as indigenous nongame mammal species, regardless of their status under the California or federal Endangered Species Acts. These regulations include Title 14, Section 251.1 of the California Code of Regulations, which prohibits harassment (defined in that section as an intentional act that disrupts an animal's normal behavior patterns, including breeding, feeding, or sheltering) of nongame mammals (e.g., bats), and California Fish

[14] 50 Code of Federal Regulations Section 10.14.

and Game Code Section 4150, which prohibits "take" or possession of all nongame mammals or parts thereof. Any activities resulting in bat mortality (e.g., the destruction of an occupied bat roost that results in the death of bats), disturbance that causes the loss of a maternity colony of bats (resulting in the death of young), or various modes of nonlethal pursuit or capture may be considered "take" as defined in Section 86 of the California Fish and Game Code. In addition, impacts to bat maternity colonies, which are considered native wildlife nursery sites, can be considered potentially significant under CEQA.

For compliance with the California Fish and Game Code and to avoid potential mortality of bats roosting in trees, the BRA recommends adherence to specific tree removal techniques, discussed further in RCM BIO-2, in the event that any of the trees identified as containing potential roosting habitat on BRA Figure 5 are removed during construction of the proposed project. Adherence to RCM BIO-2 would ensure that potential impacts to nesting birds would be less than significant.

Given the urbanized nature of the project site, the lack of suitable habitat, and the low probability for special-status species to be present on the project site, and with incorporation of RCM BIO-1 and RCM BIO-2, potential impacts of the proposed project to special-status species would be less than significant. No project-specific mitigation is required.

Regulatory Compliance Measures:

RCM BIO-1 **Migratory Bird Treaty Act.** In order to avoid potential impacts to nesting birds that are protected under the Migratory Bird Treaty Act (MBTA) and the California Fish and Game Code, vegetation clearing or construction activities that impact or encroach upon existing vegetation shall be conducted outside the general bird nesting season (February 15 through August 31). If construction occurs during the nesting season, a preconstruction nesting bird survey shall be conducted by a qualified biologist within 3 days prior to vegetation removal or at the beginning of construction activities. If a nest with eggs or young of any species covered under the MBTA or the California Fish and Game Code is found, work shall not be permitted within a buffer distance to be determined by the qualified biologist involved. Commencing project construction activities, including vegetation clearing, outside of the primary nesting season for birds reduces the need for preconstruction nesting bird surveys.

RCM BIO-2 **Roosting Bat Protection Measures.** In the event that any of the trees identified as containing potential roosting habitat within the Biological Resources Assessment (November 2024) prepared for the proposed project are removed during project construction activities, the construction contractor shall ensure that the trees are removed in two phases. During the first phase, the tree limbs shall be removed leaving the main trunk of the tree. This action will create disturbance resulting in the bats leaving the tree that evening and not returning. The following day, the remainder of the tree can be removed.

Question 4.8 b): Have a substantial adverse effect on any riparian habitat or other sensitive natural community identified in local or regional plans, policies, regulations, or by the California Department of Fish and Wildlife or U.S. Fish and Wildlife Service?

Response to Question 4.8 b):

No Impact. In accordance with Section 1602 of the California Fish and Game Code, the CDFW asserts jurisdiction over rivers, streams, and lakes, as well as any riparian vegetation associated with those features.

As stated in the Response to Question 4.8 a) above, the project site is fully developed under existing conditions, with the exception of portions of the project site containing ornamental landscaping. According to the BRA, no riparian habitat or special-status natural communities are present within the biological resources study area for the proposed project. Therefore, construction and operation of the proposed project would not have the potential to adversely impact any riparian habitat or other sensitive natural communities. No impact would occur, and no mitigation is required.

Question 4.8 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?

Response to Question 4.8 c):

No Impact. The United States Army Corps of Engineers (USACE) regulates discharges of dredged or fill material into waters of the United States (WOTUS). These waters include wetland and non-wetland bodies of water that meet specific criteria.

As previously stated, the project site is currently developed and located within a highly urbanized area. According to the BRA, there are two artificially constructed stormwater run-off control features on the eastern end of the project site. These features are used to quickly remove stormwater runoff from the Campus. They do not consist of ordinary high-water marks (OHWM) and do not contain relatively permanent water. In addition, they do not feature any defined bed-and-banks due to their vertical concrete walls and are vegetated with ornamental landscaped plant species. Therefore, no potential jurisdictional waters regulated pursuant to the Clean Water Act (CWA) by the USACE or the Regional Water Quality Control Board (RWQCB), and no lake, rivers, or streambeds regulated pursuant to the California Fish and Game Code by the CDFW are present within the biological resource study area of the proposed project. Therefore, the proposed project would have no impact on federally protected wetlands, and no mitigation is required.

Question 4.8 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?

Response to Question 4.8 d):

Less than Significant Impact. Wildlife movement and habitat fragmentation are important issues in assessing effects to wildlife. Habitat fragmentation occurs when a proposed action results in a single, unified habitat area being divided into two or more areas such that the division isolates the two new areas from each other. Isolation of habitat occurs when wildlife cannot move freely from one portion of the habitat to another or from one habitat type to another. An example is the fragmentation of habitats within and around “checkerboard” residential development. Habitat fragmentation can also occur when a

portion of one or more habitats is converted into another habitat, as when scrub habitats are converted into annual grassland habitat because of frequent burning.

The project site does not lie within a designated wildlife corridor and is generally surrounded by industrial/ manufacturing/office uses. While the Santa Ana River and associated open space area is located adjacent to the eastern project site boundary, the proposed project would not interfere with regional wildlife movement associated with this open space. As such, potential impacts of the proposed project would be less than significant, and no mitigation is required.

Question 4.8 e): Conflict with any local policies or ordinances protecting biological resources, such as a tree preservation policy or ordinance?

Response to Question 4.8 e):

Less than Significant Impact. City and County general plans and development ordinances may include regulations or policies governing biological resources. For example, policies may require tree preservation or designate local species survey areas, species of interest, or significant ecological areas.

Under the County of Orange Tree Preservation Ordinance, codified in Section 7-9-69 of the County of Orange Zoning Code, a Tree Removal Permit application would be required and submitted to Orange County Development Services prior to removal of any Protected Tree[15] within County-owned land or obtained prior to any encroachment into the Tree Protection Zone.[16] Only one tree observed within the project site during the pedestrian field surveys, a California sycamore tree located in the northern-central portion of the project site, would be considered a Protected Tree. As such, if this tree is planned for removal during construction of the proposed project, a Tree Preservation Permit application shall be required and submitted to the Deputy Director of Orange County Development Services, or designee, as summarized in RCM BIO-3. Once the application has been reviewed and approved by the Deputy Director of Orange County Development Services, or designee, installation of a replacement tree of the same or similarly appropriate native species may be required.

Further, preliminary landscaping plans for the proposed project include a minimum replanting ratio of 2:1 (2 Replacement Trees per 1 Protected Tree removed). Replacement Trees are those trees installed either on-site or off-site as part of the required replacement for removal of a Protected Tree. Therefore, any existing tree removed to accommodate the proposed project would be replaced with two trees. Adherence to RCM BIO-3 would ensure that the proposed project would not conflict with any local policies or ordinances protecting biological resources. Impacts would be less than significant, and no project-specific mitigation is required.

[15] Protected Tree means any individual native tree with a species-dependent minimum Diameter at Breast Height (DBH) as defined in Section 7-9-69.2. Trees outlined in Section 7-9-.69.2 include native oak trees and oak tree hybrids, southern California black walnut (*Juglans californica*), California sycamore (*Platanus racemosa*), and Tecate cypress (Hesperocyparis forbesii).

[16] Tree Protection Zone is defined as that area within the drip line of a Protected Tree and extending to a point five (5) feet outside the greatest extent of the drip line, or fifteen (15) feet from the trunk of a tree, whichever distance is greater.

Regulatory Compliance Measure:

RCM BIO-3 **Tree Preservation Permit.** Consistent with Section 7-9-69.4 of the County of Orange Municipal Code, a Tree Preservation Permit application shall be required and submitted to the Deputy Director of Orange County Development Services, or designee, prior to removal of the singular California sycamore tree that was observed in the northern-central portion of the project site, or obtained prior to any encroachment into the Tree Protection Zone. The application, as a whole, shall be reviewed and approved by the County of Orange Director of Public Works, or designee. The project Applicant shall adhere to any instructions provided by the Deputy Director of Orange County Development Services, or designee, regarding Replacement Trees.

Question 4.8 f): Conflict with provisions of an adopted Habitat Conservation Plan, Natural Community Conservation Plan, or other approved local, regional, or state habitat conservation plan?

Response to Question 4.8 f):

No Impact. The Natural Communities Conservation Planning Act was enacted to encourage broad-based planning to provide for effective protection and conservation of the State's wildlife resources while continuing to allow appropriate development and growth.[17] Natural Community Conservation Plans (NCCPs) may be implemented that identify measures necessary to conserve and manage natural biological diversity within the planning area, while allowing compatible and appropriate economic development, growth, and other human uses. The County, in conjunction with State and federal resource agencies, local jurisdictions, utility companies, the Transportation Corridor Agencies (TCA), and major private landowners, prepared the Natural Community Conservation Plan/Habitat Conservation Plan (NCCP/HCP) for the County of Orange Central-Coastal Subregion. The NCCP/HCP was approved, followed by execution of an Implementation Agreement, in 1996. The NCCP/HCP aims to conserve natural communities whose numbers have declined while accommodating compatible land uses.

Figure NR-3 of the City of Orange General Plan Natural Resources Element illustrates the location of NCCP Reserve areas relative to the City's boundaries. As shown in Figure NR-3, land included within the NCCP/HCP habitat reserve is located along the City's eastern boundary, while the project site is located toward the City's western boundary. As such, there is a substantial distance from the project site to any NCCP/HCP reserves, and the proposed project would not have the potential to affect this land or any species within. Further, the NCCP is largely concerned with "target species" for long-term protection, none of which are present within the project site.

The proposed project does not include vegetation removal activities with the potential to adversely impact "target species" under the NCCP. Because of this, and because the project site is not located within a NCCP/HCP Reserve area, the proposed project would have no impacts pertaining to conflicts with an adopted NCCP or other plans, and no mitigation is required.

[17] California Research Bureau, Natural Community Conservation Planning (NCCP). March 2021. Website: https://wildlife.ca.gov/Conservation/Planning/NCCP (accessed November 14, 2024).

4.9 *Cultural Resources*

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

The following analysis is based upon information presented in the Historic Resources Evaluation prepared for the proposed project in November 2024 and the Archaeological Resource Memorandum prepared for the proposed project in November 2024, included as Appendix C and Appendix D to this IS/MND, respectively.

Question 4.9 a): Cause a substantial adverse change in the significance of a historical resource pursuant to §15064.5?

Response to Question 4.9 a):

No Impact. Enacted in 1966, the National Historic Preservation Act (NHPA) established the National Register of Historic Places (National Register) program under the authority of the Secretary of the Interior. The National Register is managed by the National Park Service and serves as the nation's official list of historic and cultural resources. On the state level, the Office of Historic Preservation (OHP), a division of the California Department of Parks and Recreation, administers the California Register of Historical Resources (California Register), which was established to serve as an authoritative guide to the State's significant historical and archaeological resources.

A Historic Resources Evaluation was prepared for the proposed project in November 2024 (see Appendix C). The Historic Resources Evaluation analyzed the potential historical significance of buildings located on the existing Campus. The evaluation focused on a Historical Resources Survey Area (approximately seventeen acres) that included the Manchester Office Building (MOB/probation department), the Betty Lou Lamoreaux Juvenile Justice Center (LJC), and the Campus, which includes the YLA. The Campus was constructed in 1957 and has since undergone several renovations. The most recent building on the Campus, the MRC, was built in 2022.

An intensive level field survey and archival research were conducted as part of the Historic Resources Evaluation. The buildings within the Historical Resources Survey Area were evaluated using the criteria for listing in the California Register and the City of Orange (City) criteria for historic districts. It has been determined that, of the 26 buildings considered within the Historical Resources Study Area, eight have been standing for 50 years or longer. Both federal and State regulations identify fifty years as the threshold for identifying a historic age structure (see 36 CFR § 60.4; PRC § 5024). However, none of the eight historic-era buildings identified met any of the State or local criteria for listing in the California Register or as a City historic district and would not individually or collectively qualify as a "historical resource" as defined in the *State CEQA Guidelines*. As such, the proposed project would have no potential to cause a substantial adverse change in the significance of a historical resource. No impact would occur, and no mitigation is required.

Question 4.9 b): Cause a substantial adverse change in the significance of an archaeological resource pursuant to §15064.5?

Response to Question 4.9 b):

Less than Significant with Mitigation Incorporated. Orange County is within the San Diego sub-region of the southern coast archaeological region of California.[18] The project site is currently fully developed with the Campus, consisting of buildings, paved surfaces, and several areas of ornamental landscaping. It is likely that soils underlying the project site would have been disturbed previously as part of the development of the existing Campus. Analysis indicates that the project site contains surficial deposits that likely include Artificial Fill. Artificial Fill is typically not anticipated to include significant archaeological resources. Excavation activities associated with development of elevator shafts within several buildings included as part of the proposed project would reach a maximum depth of 6 feet below ground surface (bgs).

In order to identify any potentially present archaeological resources within the project site and its immediate vicinity, a records search was conducted at the South Central Coastal Information Center (SCCIC) of the California Historical Resources Information System (CHRIS), located at California State University, Fullerton. As discussed in the Archaeological Resource Memorandum, the records search did not identify the presence of any previously documented archaeological resources within the project site or immediate vicinity. In addition, a pedestrian field survey to identify and document visible archaeological resources was conducted on October 21, 2024. No cultural materials were observed during the pedestrian field survey.

Based on the results of the record search and pedestrian field survey, it was determined that the project site has limited potential to yield archaeological resources. However, as the proposed project would include ground disturbance in the form of excavation and grading, there is potential for inadvertent discovery of previously unrecorded resources. Incorporation of Mitigation Measure (MM) CUL-1 would ensure that construction personnel are trained to identify potentially significant archaeological resources during grading activities. MM CUL-2 sets forth procedures to follow in the event of an inadvertent archaeological discovery.

[18] City of Orange. 2010. City of Orange General Plan Program Environmental Impact Report. March. Website: https://www.cityoforange.org/home/showpublisheddocument/240/637698173340500000 (accessed November 13, 2024).

Incorporation of MMs CUL-1 and CUL-2 would reduce any potential impacts to archaeological resources to a less than significant level.

Mitigation Measures:

MM CUL-1 **Cultural Resources Sensitivity Training**. Prior to ground disturbing activities, a qualified archaeologist shall conduct a pre-grading meeting with contractors and construction personnel to provide cultural resources sensitivity training for all construction personnel. The training shall describe the type of resources that may be identified, procedures to be followed during ground disturbance, and protocols that apply in the event that unanticipated resources are discovered. The crew shall be cautioned not to collect artifacts and directed to inform a construction supervisor and the on-site archaeological monitor in the event that cultural remains are discovered during the course of construction, including if a cultural resources monitor is not present. A qualified archaeologist is someone who either meets the Secretary of the Interior's Professional Qualification Standards for archaeology (48 Federal Register 44738) and is a Registered Professional Archaeologist or has a Bachelor of Arts in archaeology or a closely related field and is a Registered Archaeologist.

MM CUL-2 **Inadvertent Archaeological Discoveries.** In the event that any cultural resources are encountered during earthmoving activities, all work within 50 feet of the find shall be halted until a qualified archaeologist can evaluate the findings and make recommendations. The archaeologist may evaluate the find in accordance with federal, State, and local guidelines, including those set forth in the California Public Resources Code Section 21083.2, to assess the significance of the find and identify avoidance or other measures as appropriate. If suspected prehistoric or historical archaeological deposits are discovered during construction, all work within the immediate area of the discovery shall be redirected and the find must be evaluated for significance by a qualified archaeologist meeting the Secretary of the Interior's Professional Qualifications Standards for archaeology (National Park Service 1983).

Question 4.9 c): Disturb any human remains, including those interred outside of dedicated cemeteries?

Response to Question 4.9 c):

Less than Significant Impact. No known human remains are present within the project site, and there are no facts or evidence to support the idea that Native Americans or people of European descent are buried within the project site or its vicinity. However, as described previously, buried and undiscovered archaeological remains, including human remains, have the potential to be present below the ground surface in portions of the project site. Disturbing human remains could violate the State's Health and Safety Code, as well as destroy the resource. In the unlikely event that human remains are encountered during grading activities associated with the proposed project, the proper authorities would be notified, and standard procedures for the respectful handling of human remains during the earthmoving activities would be adhered to. Construction contractors are required to adhere to California Code of Regulations (CCR) Section 15064.5(e), Public Resources Code (PRC) Section 5097, and Section 7050.5 of the State's Health and Safety Code. To ensure proper treatment of remains in the event of an unanticipated discovery of a burial, human bone, or suspected human bone, State law requires that all excavation or grading in the vicinity of the find halt immediately, the area of the find be protected, and the contractor immediately

notify the County Coroner of the find. Compliance with these provisions, as specified in Regulatory Compliance Measure (RCM) CUL-1 below, would ensure that any potential impacts to unknown buried human remains would be less than significant by ensuring appropriate examination, treatment, and protection of human remains as required by State law. As such, no project-specific mitigation is required.

Regulatory Compliance Measure:

RCM CUL-1 **Human Remains.** In the event that human remains are encountered on the project site, work within 50 feet of the discovery shall be redirected and the County of Orange (County) Coroner 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. If the remains are determined to be Native American, the County Coroner shall notify the Native American Heritage Commission (NAHC), which shall determine and notify a Most Likely Descendant (MLD). With the permission of the property owner, the MLD may inspect the site of the discovery. The MLD shall complete the inspection within 48 hours of notification by the NAHC. The MLD may recommend scientific removal and non-destructive analysis of human remains and items associated with Native American burials. Consistent with CCR Section 15064.5(d), if the remains are determined to be Native American and an MLD is notified, the County shall consult with the MLD as identified by the NAHC to develop an agreement for treatment and disposition of the remains. Prior to the issuance of grading permits, the County of Orange Public Works Department, 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.

4.10 *Energy*

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

Electricity Background. The project site is within the service territory of Southern California Edison (SCE). SCE provides electricity to more than 15 million people in a 50,000-square-mile area of Central, Coastal, and Southern California.[19] According to the California Energy Commission (CEC), total electricity consumption in the SCE service area in 2022 was 85,870 gigawatt hours (GWh) (31,604 GWh for the residential sector and 54,266 GWh for the non-residential sector). Total electricity consumption in Orange County in 2022 was 20,244 GWh (20,243,721,856 kilowatt hours [kWh]).[20]

Natural Gas Background. The Southern California Gas Company (SoCalGas) is the natural gas service provider for the project site. SoCalGas provides natural gas to approximately 21.8 million people in a 24,000 sq mi service area throughout Central and Southern California, from Visalia to the Mexican border.[21] According to the CEC, total natural gas consumption in the SoCalGas service area in 2022 was 5,026 million therms (2,230 million therms for the residential sector). Total natural gas consumption in Orange County in 2022 was 572 million therms (572,454,744 therms).[22]

Fuel Usage Background. Gasoline is the most used transportation fuel in California, with 97 percent of all gasoline being consumed by light-duty cars, pickup trucks, and sport utility vehicles. In 2022, total gasoline consumption in California was 316,425 thousand barrels or 1,597.6 trillion British Thermal Units (BTU).[23] Of the total gasoline consumption, 299,304 thousand barrels or 1,511.2 trillion BTU were consumed for

[19] Southern California Edison (SCE). 2020. About Us. Website: https://www.sce.com/about-us/who-we-are (accessed November 2024).

[20] CEC. 2022a. Electricity Consumption by County and Entity. Websites: http: http://www.ecdms.energy.ca.gov/elecbycounty.aspx (accessed November 2024).

[21] Southern California Gas Company (SoCalGas). 2020. About SoCalGas. Website: https://www3.socalgas.com/about-us/company-profile (accessed November 2024).

[22] CEC. 2022b. Gas Consumption by County and Entity. Website: http://www.ecdms.energy.ca.gov/gasbycounty.aspx and http://www.ecdms.energy.ca.gov/gasbyutil.aspx (accessed November 2024).

[23] U.S. Energy Information Administration (EIA). 2022. California State Profile and Energy Estimates, Data. Website: https://www.eia.gov/state/seds/data.php?incfile=/state/seds/sep_fuel/html/fuel_mg.html&sid=CA (accessed November 2024).

transportation.[24] Based on fuel consumption obtained from CARB's California Emissions Factor Model, Version 2021 (EMFAC2021), approximately 1.2 billion gallons of gasoline and approximately 157.1 million gallons of diesel will be consumed from vehicle trips in Orange County in 2024.

Question 4.10 a): Result in potentially significant environmental impact due to wasteful, inefficient, or unnecessary consumption of energy resources, during project construction or operation?

Response to Question 4.10 a):

Less than Significant Impact. The proposed project would increase the demand for electricity, natural gas, and fuel usage when compared to existing site conditions. The discussion and analysis provided below is based on the data included in the CalEEMod output, which is included in Appendix A.

Construction-Period Energy Use. The anticipated construction schedule assumes that Phase 1 of the proposed project would be completed over approximately 30 months. As described in Section 4.7, Air Quality, the construction schedule for Phase 2 has not yet been determined. Therefore, as a conservative assumption, this analysis assumes buildout of the proposed project over the course of Phase 1. The proposed project would require demolition, site preparation, grading, building construction, paving, and architectural coating during construction.

Construction and demolition activities would require energy for the manufacture and transportation of construction materials, preparation of the site for grading and building activities, and development of the project limits. All or most of this energy would be derived from non-renewable resources. Petroleum fuels (e.g., diesel and gasoline) would be the primary sources of energy for these activities. Construction of the proposed project would not involve the consumption of natural gas because none of the construction-related equipment would be powered by natural gas.

Construction activities are not anticipated to result in an inefficient use of energy because gasoline and diesel fuel would be supplied by construction contractors who would conserve the use of their supplies to minimize their costs on the proposed project. Energy usage within the project limits during construction would be temporary in nature and would be relatively small in comparison to the State's available energy sources. Therefore, construction energy impacts would be less than significant, and no mitigation would be required.

Operational Energy Use. Energy consumed by the proposed project would be associated with electricity, natural gas, and fuel used for vehicle trips associated with the project. The proposed project would result in diesel usage associated with the backup diesel generator; however, the diesel generator is only expected to run approximately 50 hours per year. Therefore, use of the diesel generator is not expected to substantially increase diesel fuel usage and is not evaluated further.

Natural gas use in CalEEMod is measured in units of a thousand British thermal units (kBTU) per year; however, this analysis converts the results to natural gas in units of therms. Electricity use in CalEEMod is measured in kilowatt hours (kWh) per year.

[24] U.S. Energy Information Administration (EIA). 2022. California State Profile and Energy Estimates, Data. Website: https://www.eia.gov/state/seds/data.php?incfile=/state/seds/sep_fuel/html/fuel_mg.html&sid=CA (accessed November 2024).

The proposed project would result in energy usage associated with gasoline and diesel to fuel project-related trips. Trip generation rates used in CalEEMod for the proposed project were based on the project's trip generation estimates in Section 4.21, Transportation, which identifies that the proposed project is anticipated to generate a net increase of 130 new average daily trips. In addition, natural gas would be limited to the culinary kitchen, with the rest of the buildings designed to be all electric, which was included in CalEEMod.

Table 4.10.A shows the estimated potential increased electricity, natural gas, gasoline, and diesel demand associated with the proposed project. The electricity rates are from the CalEEMod analysis, while the gasoline and diesel rates are based on the traffic analysis in conjunction with the United States Department of Transportation (USDOT) fuel efficiency data and using the United States Environmental Protection Agency (USEPA) fuel economy estimates for 2020 and the California diesel fuel economy estimates for 2021.

Table 4.10.A: Estimated Annual Energy Use of Proposed Project

	Electricity Use (kWh per year)	Natural Gas Use (kBTU per year)	Gasoline (gallons per year)	Diesel (gallons per year)
Proposed Project	870,183	5,116	16,787	11,115

Source: Compiled by LSA (November 2024).
kBTU = thousand British thermal units
kWh = kilowatt hours

As shown in Table 4.10.A, the estimated increase in electricity demand associated with the operation of the proposed project would be 870,183 kWh per year. Total electricity consumption in Orange County in 2022 was 20,243,721,856 kWh; therefore, operation of the proposed project would negligibly increase the annual electricity consumption in Orange County by approximately less than 0.1 percent.

As shown in Table 4.10.A, the estimated potential increase in natural gas demand associated with the proposed project is 5,116 therms per year. Total natural gas consumption in Orange County in 2022 was 572 million therms (572,454,744 therms). Therefore, operation of the proposed project would negligibly increase the annual natural gas consumption in Orange County by approximately less than 0.1 percent.

Electricity and natural gas demand associated with project operations would not be considered inefficient, wasteful, or unnecessary in comparison to other similar developments in the region. Furthermore, the proposed project would not conflict with or obstruct a State or local plan for renewable energy or energy efficiency. The proposed project would be required to adhere to all federal, State, and local requirements for energy efficiency, including the Title 24 standards. Title 24 building energy efficiency standards establish minimum efficiency standards related to various building features, including appliances, water and space heating and cooling equipment, building insulation and roofing, and lighting, which would reduce energy usage. In addition, proposed new development would be constructed using energy efficient modern building materials and construction practices, and the proposed project also would use new modern appliances and equipment, in accordance with the Appliance Efficiency Regulations (Title 20, CCR Sections 1601 through 1608). The proposed project would also be Leadership in Energy and Environmental Design (LEED) certified. However, energy consumption is largely a function of personal choice and the physical structure and layout of buildings.

In 2018, Senate Bill (SB) 100 was passed, which has committed California to generate all electricity from carbon free sources by 2045. As mentioned above, natural gas usage would be limited to the culinary

kitchen, with all other buildings designed to be all electric. The proposed project's all-electric design considers the context of the changing electricity grid and is designed to displace natural gas emissions over the lifetime of the project. The all-electric building design would result in decreasing emissions as California's grid becomes cleaner, and once the grid consists of 100 percent renewable generation sources, the project would have zero operational emissions associated with electricity usage.

The proposed project would result in the annual consumption of 16,787 gallons of gasoline and 11,115 gallons of diesel fuel, as shown in Table 4.10.A. This analysis conservatively assumes that all vehicle trips generated as a result of project operation would be new to Orange County. Based on fuel consumption obtained from EMFAC2021, approximately 1.2 billion gallons of gasoline and approximately 157.1 million gallons of diesel will be consumed from vehicle trips in Orange County in 2024. Therefore, vehicle trips associated with the proposed project would increase the annual fuel use in Orange County by approximately less than 0.01 percent for gasoline fuel usage and approximately less than 0.01 percent for diesel fuel usage. In addition, vehicles associated with trips to and from the project site would be subject to fuel economy and efficiency standards, which are applicable throughout the State. As such, it is reasonable to assume that the fuel efficiency of vehicles associated with project operations would increase throughout the life of the proposed project. Therefore, implementation of the proposed project would not result in a substantial increase in transportation-related energy uses.

The proposed project would not result in the wasteful, inefficient, or unnecessary consumption of fuel or energy and would incorporate renewable energy or energy efficiency measures into building design, equipment uses, and transportation. Impacts would be less than significant, and no mitigation is required.

Question 4.10 b): Conflict or obstruct a state or local plan for renewable energy or energy efficiency?

Response to Question 4.10 b):

Less than Significant Impact. In 2002, the Legislature passed SB 1389, which required the CEC to develop an integrated energy plan every 2 years for electricity, natural gas, and transportation fuels for the California Energy Policy Report. The plan calls for the State to assist in the transformation of the transportation system to improve air quality, reduce congestion, and increase the efficient use of fuel supplies with the least environmental and energy costs. To further this policy, the plan identifies a number of strategies, including assistance to public agencies and fleet operators in implementing incentive programs for zero emission vehicles and their infrastructure needs, and encouragement of urban designs that reduce VMT and accommodate pedestrian and bicycle access.

The CEC recently adopted the *2023 Integrated Energy Policy Report*[25] that provides the results of the CEC's assessments of a variety of energy issues facing California. The City of Orange relies on the State's integrated energy plan and does not have its own local plan to address renewable energy or energy efficiency. As indicated above, energy usage on the project site during construction would be temporary in nature and would be relatively small in comparison to the overall use in the County. In addition, energy usage associated with operation of the proposed project would be relatively small in comparison to the overall use in Orange County and the State's available energy sources. Therefore, energy impacts at the regional level would be negligible. Because California's energy conservation planning actions are conducted at a regional level, and because the proposed project's total impact on regional energy supplies would be minor, the proposed project would not conflict with or obstruct California's energy conservation

[25] CEC. 2023. 2023 Integrated Energy Policy Report Update. Docket No. 23-IEPR-01.

plans as described in the CEC's Integrated Energy Policy Report. Additionally, as demonstrated above, the proposed project would not result in the inefficient, wasteful, and unnecessary consumption of energy. Potential impacts related to conflict with or obstruction of a State or local plan for renewable energy or energy efficiency would be less than significant, and no mitigation is required.

4.11 *Geology and Soils*

Would the project:	**Potentially Significant Impact**	**Less than Significant With Mitigation Incorporated**	**Less than Significant Impact**	**No Impact**
a) Directly or indirectly cause potential substantial adverse effects, including the risk of loss, injury, or death involving: i) Rupture of a known earthquake fault, as delineated on the most recent Alquist-Priolo Earthquake Fault Zoning Map issued by the State Geologist for the area or based on other substantial evidence of a known fault? Refer to Division of Mines and Geology Special Publication 42.	☐	☐	☒	☐
ii) Strong seismic ground shaking?	☐	☒	☐	☐
iii) Seismic-related ground failure, including liquefaction?	☐	☒	☐	☐
iv) Landslides?	☐	☐	☒	☐
b) Result in substantial soil erosion or the loss of topsoil?	☐	☐	☒	☐
c) Be located on a geologic unit or soil that is unstable, or that would become unstable as a result of the project, and potentially result in onsite or offsite landslide, lateral spreading, subsidence, liquefaction or collapse?	☐	☒	☐	☐
d) Be located on expansive soil, as defined in Table 18-1-B of the Uniform Building Code (1994), creating substantial direct or indirect risks to life or property?	☐	☐	☒	☐

Would the project:	**Potentially Significant Impact**	**Less than Significant With Mitigation Incorporated**	**Less than Significant Impact**	**No Impact**
e) Have soils incapable of adequately supporting the use of septic tanks or alternative waste water disposal system where sewers are not available for the disposal of waste water?	☐	☐	☐	☒
f) Directly or indirectly destroy a unique paleontological resource or site or unique geologic feature?	☐	☒	☐	☐

The analysis presented in this section is based upon information presented in the *Geotechnical Investigation Orange County Youth Transition Center Project (OC YTC)* (Geotechnical Investigation) prepared for the proposed project by Geocon West, Inc. in March 2024 and the *Results of Paleontological Resources Analysis for Inclusion in the Initial Study/Mitigated Negative Declaration for the Orange County Juvenile Hall Youth Transition Center Project Memorandum* (Paleo Memo) prepared for the proposed project by LSA in November 2024. These documents are included within this IS/MND as Appendices E and F, respectively.

Question 4.11 a): Directly or indirectly cause potential substantial adverse effects, including the risk of loss, injury, or death involving:

Question 4.11 a-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.

Response to Question 4.11 a-*i*):

Less than Significant Impact. The Alquist-Priolo Earthquake Fault Zoning Act of 1972 establishes regulatory zones surrounding surface traces of active faults within California in order to reduce losses from surface fault rupture.[26] In compliance with the Alquist-Priolo Earthquake Fault Zoning Act, Alquist-Priolo earthquake fault zones are periodically mapped by the California Geological Survey, a division of the California Department of Conservation (DOC).

According to the Geotechnical Investigation, the project site is not located within a State-designated Alquist-Priolo earthquake fault zone. There are no known active or potentially active faults or fault traces shown on current geologic maps as crossing or being in close proximity to the project site. Therefore,

[26] California Department of Conservation (DOC). n.d. Alquist-Priolo Earthquake Fault Zones. Website: https://www.conservation.ca.gov/cgs/alquist-priolo (accessed October 16, 2024).

potential for the exposure of people or structures to potential substantial adverse effects related to fault rupture as provided in the Alquist-Priolo Earthquake Fault Zoning Act is less than significant. No mitigation is required.

Question 4.11 a-*ii*): Strong seismic ground shaking?

Response to Question 4.11 a-*ii*):

Less than Significant With Mitigation Incorporated. Ground shaking due to seismic events (earthquakes) would typically be considered the greatest source of potential damage to structures. Seismic shaking is characterized by the physical movement of the land surface during and subsequent to an earthquake. Seismic shaking has the potential to cause destruction and damage to buildings and property, including damage resulting from damaged or destroyed gas or electrical utility lines; blockage of surface seepage and groundwater flow; changes in groundwater flow; dislocation of street alignments; displacement of drainage channels and drains; and possible loss of life.

As stated above in the Response to Question 4.11 a-*i*), the proposed project is not located in the immediate vicinity of a State-designated Alquist-Priolo Earthquake Fault Zone and therefore is not considered susceptible to surface fault rupture hazards. However, the project site is located within Southern California, which contains various active and inactive faults and is generally considered a seismically active region.

The closest surface trace of a potentially active fault to the project site is the Newport-Inglewood Fault Zone, which is located approximately 9.7 miles southwest of the project site. Other potentially active faults in the regional vicinity of the project site include the Whittier Fault, the Chino Fault, the Elsinore Fault, and the offshore segment of the Palos Verdes Fault Zone. The distance of these faults to the project site ranges from 10 to 41 miles.

In addition to surface traces of faults, the region also contains buried thrust faults, also known as blind thrusts, which are not exposed at the ground surface. Although the Puente Hills Blind Thrust underlies the project site at a substantial depth, this feature is considered capable of generating an earthquake that could result in ground shaking within the project site.

Given the location of this feature, and based on seismicity trends in the region, the project site could be subject to strong ground shaking in the event of an earthquake. However, the Geotechnical Investigation identifies seismic design criteria, consistent with Chapter 16, Structural Design, of the 2022 California Building Code (CBC). As described in Mitigation Measure (MM) GEO-1 below, the proposed project would be required to comply with the recommendations set forth in the Geotechnical Investigation, which include these seismic design criteria as well as other design recommendations to increase the stability of the proposed project.

With the proposed project's adherence to the seismic design criteria identified in the Geotechnical Investigation pursuant to MM GEO-1, potential ground-shaking effects to the proposed structures would be minimized. Therefore, the proposed project would not cause potential substantial adverse effects related to seismic ground shaking, and impacts with respect to this topic would be less than significant with mitigation incorporated.

Mitigation Measure:

MM GEO-1 **Compliance with the Recommendations in the Geotechnical Investigation.** Prior to the issuance of demolition or grading permits, the County of Orange (County) Public Works Department shall verify that requirements and recommendations in the Geotechnical Investigation have been appropriately incorporated into the project plans. All grading operations and construction shall be conducted in conformance with all of the recommendations included in the Geotechnical Investigation, which was prepared by Geocon West, Inc., titled *Geotechnical Investigation Orange County Youth Transition Center Project (OC YTC)* (Geotechnical Investigation) (March 15, 2024) as well as any subsequent geotechnical reports prepared for the project. All recommendations found in the Geotechnical Investigation shall be incorporated into project design and shall include, but not be limited to:

- Seismic design recommendations
- Foundation design recommendations
- Lateral design recommendations
- Preliminary pavement recommendations
- Grading recommendations
- Construction considerations

Additional site construction plans, including grading plans, shall be reviewed by the project Geotechnical Consultant prior to construction to check for conformance with all of the recommendations of the Geotechnical Investigation. Design, grading, and construction shall be performed in accordance with the requirements of the applicable seismic standards identified in the Geotechnical Investigation, as well as the recommendations of the project Geotechnical Consultant as summarized in the Geotechnical Investigation subject to review by the Orange County Public Works, prior to the start of grading activities.

Question 4.11 a-*iii*): Seismic-related ground failure, including liquefaction?

Response to Question 4.11 a-*iii*):

Less than Significant With Mitigation Incorporated. Liquefaction is caused by sudden temporary increases in pore water pressure due to seismic densification or other displacement of submerged granular soils. Layers of loose sand and sandy silt may, therefore, be subject to liquefaction if these materials are or were to become submerged and are also exposed to strong seismic ground shaking. Seismic ground shaking of relatively loose granular soils that are saturated or submerged can cause the soils to liquefy and temporarily behave as a dense fluid. This loss of support can produce local ground failure such as settlement or lateral spreading that may damage overlying improvements. Liquefaction commonly occurs when three conditions are present simultaneously: (1) high groundwater; (2) relatively loose, cohesion-lacking, primarily sandy soil; and (3) earthquake-generated seismic waves.

According to Figure PS-1, Environmental and Natural Hazard Policy Map, of the City's General Plan Public Safety Element,[27] the City considers the project site to be located within a Liquefaction Hazard Area. In

[27] City of Orange. 2015. General Plan Public Safety Element. Website: https://www.cityoforange.org/home/showpublished document/214/637698172567530000 (accessed October 16, 2024).

addition, according to the Geotechnical Investigation, the State of California Seismic Hazard Zone Map for the Anaheim quadrangle indicates that the project site is located within a zone of required investigation for liquefaction.

Consistent with standard practice, the Geotechnical Investigation analyzed liquefaction potential of the project site to a depth of 50 ft below the lowest portion of the proposed structures. While exploratory borings collected as part of the Geotechnical Investigation encountered groundwater at a depth of approximately 54 ft bgs, historic high groundwater levels within the project site vicinity are recorded as approximately 30 to 40 ft bgs. As such, the liquefaction analysis prepared for the proposed project was performed using a historic high groundwater table of 30 ft bgs in order to ensure a conservative approach.

The liquefaction analysis presented in the Geotechnical Investigation ultimately determined that alluvial soils underlying the historic high groundwater depth of 30 ft bgs could be prone to up to 1.1 inches of liquefaction-induced settlement during an earthquake with a magnitude of 6.12, or a Design Earthquake as determined by historic earthquake data. The analysis also included a more conservative scenario, referred to as the Maximum Considered Earthquake (MCE), which evaluated a potential earthquake with a magnitude of 6.65. Under this scenario, the soils underlying the historic high groundwater depth of 30 ft bgs could be prone to up to 2.5 inches of liquefaction-induced settlement. Because these potential settlement values exceed allowable limits, the Geotechnical Investigation sets forth grading and foundation design recommendations in order to reduce the effects of liquefaction-induced settlement on the proposed structures. These recommendations include a reinforced mat foundation system or a conventional foundation system with interconnection foundation ties in order to provide additional stability. At the minimum, the Geotechnical Investigation recommends that existing earth materials underlying each proposed building footprint be excavated and properly compacted to a depth of at least 5 ft bgs.

The proposed project's adherence to the grading and foundation design recommendations presented in the Geotechnical Investigation, pursuant to MM GEO-1, would reduce potential liquefaction-related substantial adverse effects related to a less than significant level with mitigation incorporated.

Question 4.11 a-*iv*): Landslides?

Response to Question 4.11 a-*iv*):

Less than Significant Impact. The project site is relatively flat and slopes gently from 0.5 percent to 2.0 percent to the southwest. According to Figure PS-1, Environmental and Natural Hazard Policy Map, of the City's General Plan Public Safety Element,[28] the project site is not located within a Landslide Hazard Area. Further, no known landslides have occurred within the project site or its vicinity.

The proposed project would not introduce any new topographical features or elements that would increase the risk of landslide within the project vicinity. In addition, as previously stated, the project site is generally flat. Therefore, the potential for the proposed project to expose people or structures to potential substantial adverse effects related to landslides would be less than significant, and no mitigation is required.

[28] City of Orange. 2015. General Plan Public Safety Element. Website: https://www.cityoforange.org/home/showpublished document/214/637698172567530000 (accessed October 16, 2024).

Question 4.11 b): Result in substantial soil erosion or the loss of topsoil?

Response to Question 4.11 b):

Less than Significant Impact. The primary concern in regard to soil erosion or loss of topsoil would be during the construction phase of the proposed project. Grading and earthwork activities associated with the proposed demolition and construction activities under Phases 1 and 2 of the proposed project could temporarily expose soils to potential short-term erosion by wind and water. However, since the project site is relatively flat, potential soil erosion can be controlled via implementation of standard construction erosion control practices such as the use of water to prevent fugitive dust and other construction best management practices (BMPs) required pursuant to the National Pollutant Discharge Elimination System (NPDES) Construction General Permit. Because the project limits surfaces would not be prone to erosion with implementation of erosion control practices, the proposed project would not result in substantial soil erosion or the loss of topsoil. Furthermore, the exposure of soils during construction would be short-term and subject to requirements established by the NPDES, which is discussed further in Section 4.14, Hydrology and Water Quality, of this IS/MND.

Once operational, the proposed project would increase the proportion of pervious surface area within the project site by approximately 40 percent. As such, the proposed project would result in decreased peak flow runoff and volumes from those under existing conditions. Therefore, operations of the proposed project would ensure that the potential for erosion or the loss of topsoil is less than or equal to existing conditions. Nevertheless, incorporation of Regulatory Compliance Measures (RCM) HYD-1 through RCM HYD-4, as discussed further in Section 4.14, would minimize the volume of runoff within the project site that could potentially contribute to erosion. Therefore, direct and indirect impacts related to erosion and loss of topsoil would be less than significant, and no mitigation would be required.

Question 4.11 c): Be located on a geologic unit or soil that is unstable, or that would become unstable as a result of the project, and potentially result in onsite or offsite landslide, lateral spreading, subsidence, liquefaction or collapse?

Response to Question 4.11 c):

Less than Significant With Mitigation Incorporated. According to the Geotechnical Investigation, geologic maps indicate that the project site is underlain by artificial fill to depths of approximately 3.5 ft, associated with prior disturbance of the project site. Beneath the artificial fill, Holocene age young alluvial fan deposits were encountered. The Geotechnical Investigation notes that the characteristics of these soils would not necessarily preclude construction of the proposed project.

During construction of the proposed project, soil stability would be maintained through the use of appropriate sloping or shoring measures, as recommended by the Geotechnical Investigation. The proposed project would be required to establish a stable excavation bottom within the project site prior to placing fill during grading activities. In the event that the subgrade materials are saturated or soft, subgrade stabilization measures would be required. All excavations would be stabilized within 30 days of initial excavation, pursuant to the Geotechnical Investigation. Areas of loose or overly moist soils, which could be considered unstable, may be encountered during grading activities. In this event, the soils would undergo spreading and drying practices to increase stability and ensure appropriate conditions for development. Lastly, prior to placing fill, the foundation excavation bottom of the proposed structures would be compacted using a compaction wheel or mechanical whacker to increase stability.

***Landslides*.** As previously stated, because the project site is located in a relatively flat area with no significant slopes nearby, landslides or other forms of natural slope instability do not represent a significant hazard to the project site. As such, the risk of on- or off-site landslides under the proposed project would be less than significant, and no mitigation is required.

Subsidence. Subsidence refers to vertical displacement of land. Common causes of land subsidence are pumping water, oil, and gas from underground reservoirs; dissolution of limestone aquifers (sinkholes); collapse of underground mines; drainage of organic soils; and initial wetting of dry soils (hydro compaction). Subsidence is also caused by heavy loads generated by large earthmoving equipment. The project site is not located within an area of groundwater, peat loss, or oil extraction. However, the project site is located within an area of known ground subsidence according to the United States Geological Survey. However, the Geotechnical Investigation notes that subsidence related to groundwater pumping typically occurs in small magnitudes spread out over large areas, therefore minimizing impacts to individual sites. Because the proposed project consists of discrete structures on a singular project site rather than a regionally extensive structure, subsidence-related elevation changes would not be expected to damage the proposed buildings. As such, the risk of subsidence-related adverse effects under the proposed project is less than significant, and no mitigation is required.

Liquefaction. As previously stated, the project site is susceptible to liquefaction concerns. However, the *Geotechnical Investigatio*n sets forth grading and foundation design recommendations in order to reduce the effects of liquefaction-induced settlement on the proposed structures. These recommendations include a reinforced mat foundation system or a conventional foundation system with interconnection foundation ties in order to provide additional stability. At the minimum, the Geotechnical Investigation recommends that existing earth materials underlying each proposed building footprint be excavated and properly compacted to a depth of at least 5 ft bgs. With adherence to these stabilization recommendations pursuant to MM GEO-1, the risk of liquefaction under the proposed project would be less than significant.

Lateral Spreading. Lateral spreading often occurs on very gentle slopes or flat terrain. This ground failure is caused by liquefaction and is usually triggered by rapid ground motion, such as that experienced during an earthquake, but can also be artificially induced. When coherent material, either bedrock or soil, rests on materials that liquefy, the upper units may undergo fracturing and extension and may then subside, translate, rotate, disintegrate, or liquefy and flow.

The Geotechnical Investigation contains various lateral design measures with the ultimate intention of establishing friction between the bottom of the foundation and the underlying soils. With adherence to these measures and other stability measures identified in MM GEO-1, the proposed project would exhibit resistance to lateral spreading. As such, the risk of lateral spreading under the proposed project would be less than significant with incorporation of MM GEO-1, and no mitigation is required.

Collapse. The Geotechnical Investigation does not identify collapse as a potential hazard to the project site. Nevertheless, as discussed above, the proposed project would adhere to all feasible design measures identified in the Geotechnical Investigation to increase the stability of the proposed structures, foundations, and underlying soils, pursuant to MM GEO-1. As such, the risk of collapse under the proposed project would be less than significant with mitigation incorporated, and no mitigation is required.

In summary, with implementation of design recommendations set forth in the Geotechnical Investigation pursuant to MM GEO-1, potential impacts of the proposed project related to unstable soils or geologic

units that could result in on- or off-site landslides, lateral spreading, subsidence, liquefaction, or collapse would be reduced to a less than significant level.

Question 4.11 d): Have soils incapable of adequately supporting the use of septic tanks or alternative waste water disposal system where sewers are not available for the disposal of waste water?

Response to Question 4.11 d):

Less than Significant Impact. Expansive soils are characterized by their ability to undergo substantial volume changes (shrink or swell) due to variations in moisture content as a result of precipitation, landscape irrigation, utility leakage, roof drainage, perched groundwater, drought, or other factors. Expansive soils contain types of clay minerals that occupy considerably more volume when they are wet or hydrated than when they are dry or dehydrated. Volume changes associated with changes in the moisture content of near-surface expansive soils can cause uplift or heave of the ground when they become wet or, less commonly, cause settlement when they dry out.

According to the Geotechnical Investigation prepared for the proposed project, the upper five ft of soils currently underlying the project site are considered to have an expansion index (EI) of 0 to 2, meaning the expansion potential of the soils is considered "very low" in accordance with the 2022 CBC. The proposed project is not anticipated to require the use of imported fill; however, in the event that imported fill is necessary, the proposed project would import soil with a "very low" EI (20 or less) pursuant to the recommendations set forth in the Geotechnical Investigation.

Further, the Geotechnical Investigation evaluated the stormwater infiltration potential of soils within the project site and ultimately concluded that stormwater generated by the proposed project would not affect soil structures of existing or proposed foundations due to expansive soils. As such, the proposed project would not create substantial direct or indirect risks to life or property associated with expansive soils. Impacts would be less than significant, and no mitigation is required.

Question 4.11 e): Have soils incapable of adequately supporting the use of septic tanks or alternative waste water disposal system where sewers are not available for the disposal of waste water?

Response to Question 4.11 e):

No Impact. The proposed project would not use septic tanks or alternative methods for disposal of wastewater into subsurface soils. The entire City, as well as the Campus, are currently served by an existing sewer system; as such, there is no need for septic tanks or other alternative wastewater systems. Under the proposed project, new 4-inch sewer laterals would be established in order to connect the existing on-site sewer mainline with the proposed buildings. Therefore, the proposed project would not result in any impacts related to septic tanks or alternative wastewater disposal methods. No mitigation is required.

Question 4.11 f): Directly or indirectly destroy a unique paleontological resource or site or unique geologic feature?

Response to Question 4.11 f):

Less than Significant With Mitigation Incorporated. The County of Orange has mapped general areas of paleontological sensitivity, based on known sites and underlying geological formations, within Figure VI-9 of its General Plan Resources Element.[29] According to Figure VI-9, the project site is not located within an area of paleontological sensitivity as identified by the County. Nevertheless, in order to evaluate the potential presence of paleontological resources within the project site, a Paleo Memo was prepared for the proposed project in November 2024. Preparation of this assessment included consultation of geologic maps of the project site, review of relevant geological and paleontological literature to determine the geological makeup of the project site and any known fossils in the region, and a search of the Natural History Museum of Los Angeles County (NHMLAC) to determine the status and extent of previously recorded paleontological resources within and surrounding the project site.

Using the results of the literature review, the Paleo Memo established the existing setting for paleontological resources underlying the project site. According to the Paleo Memo, the project site is located within the Peninsular Ranges Geomorphic Province, a 900-mile-long northwest-southeast trending structural block with similarly trending faults. This block contains extensive pre-Cenozoic (more than 66 million years ago [Ma]) igneous and metamorphic rocks covered by Cenozoic (less than 66 Ma) sedimentary deposits.

Specifically, the project site is underlain by Late Pleistocene to Holocene Young Alluvial Fan Deposits, formed roughly 2.58 million years ago to 11,700 years ago. Young Alluvial Fan Deposits are considered to have low paleontological sensitivity from the surface to a depth of 10 ft and high paleontological sensitivity below that mark due to the presence of older material. Below depths of 10 ft, there is potential for the discovery of large and small mammal, reptile, fish, invertebrate, and plant fossils.

Given the developed nature of the project site, Artificial Fill is likely present on the project site and adjacent roads in addition to the Young Alluvial Fan Deposits. Artificial Fill consists of sediments that have been removed from one location and transported to another location by human activity, rather than by natural means. The transportation distance can vary from a few feet to many miles, and composition depends on the source and purpose. Artificial Fill can sometimes contain modern debris such as asphalt, wood, bricks, concrete, metal, glass, plastic, and even plant material. Although Artificial Fill may contain fossils, these fossils have been removed from their original location and are thus out of stratigraphic context. Therefore, they are not considered important for scientific study, and Artificial Fill is considered to have no paleontological sensitivity.

According to the fossil locality search through the NHMLAC, there are no known fossil localities within the boundaries of the project. However, the search did note several fossil localities in the general vicinity of the project site, within sediments similar in nature to those found underlying the project site. This, in conjunction with the high paleontological sensitivity of Young Alluvial Fan Deposits below 10 ft, indicates a potential for paleontological resources to exist within the project site.

Excavation activities associated with the proposed project would reach a maximum depth of 6 ft, which would be associated with elevator shafts within several proposed buildings. Excavation activities

[29] County of Orange. 2012. Orange County General Plan Resources Element. Website: https://ocds.ocpublicworks.com/service-areas/oc-development-services/planning-development/codes-and-regulations/general-plan (accessed October 16, 2024).

associated with the establishment of various utility connections, which would reach approximately 18 inches to 36 inches in depth, with storm drain and sanitary sewer potentially deeper to accommodate flow. As such, excavation activities under the proposed project are not anticipated to reach depths of Young Alluvial Fan Deposits that would be considered paleontologically sensitive (10 ft or deeper). Nevertheless, to ensure that potential impacts to undiscovered paleontological resources remain less than significant, preparation of a monitoring program, monitoring of construction activities, appropriate treatment of newly discovered resources, and preparation of a final monitoring report would be required, as outlined in MM GEO-2 below. With adherence to MM GEO-2, potential impacts of the proposed project to undiscovered paleontological resources would be reduced to a less than significant level.

Mitigation Measure:

MM GEO-2 **Paleontological Resources.** Prior to the commencement of ground-disturbing activities, a qualified, professional paleontologist who meets the standards set by the Society of Vertebrate Paleontology (SVP) shall be retained to develop a Paleontological Resources Impact Mitigation Program (PRIMP) for this project. The PRIMP shall be consistent with the guidelines of the SVP and shall include the methods that will be used to protect paleontological resources that may exist within the project limits, as well as procedures for monitoring, fossil preparation and identification, curation into a repository, and preparation of a report at the conclusion of ground disturbance.

If ground-disturbing activities occur in deposits with high paleontological sensitivity (i.e., Young Alluvial Fan Deposits below a depth of 10 feet), those activities shall be monitored by a qualified paleontological monitor following the PRIMP. If paleontological resources are encountered during the course of ground disturbance, the paleontological monitor shall have the authority to temporarily redirect construction away from the area of the find in order to assess its significance. Once soils have been monitored during the excavation stage and determined to lack the presence of paleontological resources, monitoring of these soils would no longer be necessary for the remainder of grading activities. In the event that paleontological resources are encountered when a paleontological monitor is not present, work in the immediate area of the find shall be redirected and the paleontologist or paleontological monitor shall be contacted to assess the find for scientific significance. If determined to be scientifically significant, the fossil shall be collected from the field.

Collected resources shall be prepared to the point of identification, identified to the lowest taxonomic level possible, cataloged, and curated into the permanent collections of a museum repository. At the conclusion of the monitoring program, a report of findings shall be prepared to document the results of the monitoring program.

4.12 *Greenhouse Gas Emissions*

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

Greenhouse Gases (GHGs) are present in the atmosphere naturally, are released by natural sources, or form from secondary reactions taking place in the atmosphere. Over the last 200 years, humans have caused substantial quantities of GHGs to be released into the atmosphere. These extra emissions are increasing GHG concentrations in the atmosphere and enhancing the natural greenhouse effect, which is believed to be causing global warming. Although manmade GHGs include naturally occurring GHGs such as carbon dioxide (CO_2), methane (CH_4), and nitrous oxide (N_2O), some gases like hydrofluorocarbons (HFCs), perfluorocarbons (PFCs), nitrogen trifluoride (NF_3), and sulfur hexafluoride (SF_6) are completely new to the atmosphere.

Certain gases, such as water vapor, are short-lived in the atmosphere. Others remain in the atmosphere for significant periods of time, contributing to climate change in the long term. Water vapor is excluded from the list of GHGs above because it is short-lived in the atmosphere and its atmospheric concentrations are largely determined by natural processes, such as oceanic evaporation.

These gases vary considerably in terms of Global Warming Potential (GWP), which is a concept developed to compare the ability of each GHG to trap heat in the atmosphere relative to another gas. The GWP is based on several factors, including the relative effectiveness of a gas to absorb infrared radiation and length of time that the gas remains in the atmosphere ("atmospheric lifetime"). The GWP of each gas is measured relative to CO_2, the most abundant GHG; the definition of GWP for a particular GHG is the ratio of heat trapped by one unit mass of the GHG to the ratio of heat trapped by one unit mass of CO_2 over a specified time period. GHG emissions are typically measured in terms of pounds or tons of "CO_2 equivalents" (CO_2e).

State CEQA Guidelines Section 15064(b) provides that the "determination of whether a project may have a significant effect on the environment calls for careful judgment on the part of the public agency involved, based to the extent possible on scientific and factual data," and further states that an "ironclad definition of significant effect is not always possible because the significance of an activity may vary with the setting." Currently, there is no Statewide GHG emissions threshold that has been used to determine the potential GHG emissions impacts of a project. Threshold methodology and thresholds are currently developed and revised by air districts in California.

To provide guidance to local lead agencies on determining significance for GHG emissions in their California Environmental Quality Act (CEQA) documents, the South Coast Air Quality Management District (SCAQMD) convened a GHG CEQA Significance Threshold Working Group (Working Group). The Working Group has identified a tiered approach for evaluating GHG emissions for development projects where SCAQMD is not the lead agency:

- **Tier 1.** If a project is exempt from CEQA, project-level and cumulative GHG emissions are less than significant.

- **Tier 2.** If the project complies with a GHG emissions reduction plan or mitigation program that avoids or substantially reduces GHG emissions in the project's geographic area (i.e., city or county), project-level and cumulative GHG emissions are less than significant.

- **Tier 3.** If GHG emissions are less than the screening-level threshold, project-level and cumulative GHG emissions are less than significant.

  For projects that are not exempt or where no qualifying GHG reduction plans are directly applicable, SCAQMD requires an assessment of GHG emissions. SCAQMD, under Option 1, is proposing a "bright-line" screening-level threshold of 3,000 metric tons (MT) of CO_2e (or MT CO_2e) per year (MT CO_2e/year) for all land use types or, under Option 2, the following land use-specific thresholds: 1,400 MT CO_2e for commercial projects; 3,500 MT CO_2e for residential projects; or 3,000 MT CO_2e for mixed-use projects. This bright-line threshold is based on a review of the Office of Planning and Research (OPR) database of CEQA projects. Based on their review of 711 CEQA projects, 90 percent of CEQA projects would exceed the bright-line thresholds identified above. Therefore, projects that do not exceed the bright-line threshold would have a nominal and therefore less than cumulatively considerable impact on GHG emissions.

- **Tier 4.** If emissions exceed the numerical screening threshold, a more detailed review of the project's GHG emissions is warranted. The SCAQMD has proposed an efficiency target for projects that exceed the bright-line threshold. The current recommended approach is per-capita efficiency targets. The SCAQMD is not recommending use of a percentage emissions reduction target. Instead, the SCAQMD proposes proposed a 2020 efficiency target of 4.8 MT CO_2e/year per service population for project-level analyses and 6.6 MT CO_2e/year per service population for plan-level projects (e.g., program-level projects such as General Plans).

For the purpose of this analysis, the proposed project will be compared to the threshold of 3,000 MT CO_2e/year for all land use types. The project is also evaluated for compliance with the 2022 Scoping Plan and the 2024 Southern California Association of Governments (SCAG) Regional Transportation Plan/Sustainable Communities Strategy (RTP/SCS).

Question 4.12 a): Generate greenhouse gas emissions, either directly or indirectly, that may have a significant effect on the environment?

Response to Question 4.12 a):

Less than Significant Impact. This section describes the proposed project's construction- and operation-related GHG emissions and contribution to global climate change. The SCAQMD has not addressed

emission thresholds for construction in its *CEQA Air Quality Handbook*; however, SCAQMD requires quantification and disclosure. Thus, this section discusses construction emissions.

Construction Greenhouse Gas Emissions. Demolition and construction activities associated with the proposed project would produce combustion emissions from various sources. During construction, GHGs would be emitted through the operation of construction equipment and from worker and builder supply vendor vehicles, each of which typically use fossil-based fuels to operate. The combustion of fossil-based fuels creates GHGs such as CO_2, CH_4, and N_2O. Furthermore, CH_4 is emitted during the fueling of heavy equipment. Exhaust emissions from on-site construction activities would vary daily as construction activity levels change.

The SCAQMD does not have an adopted threshold of significance for construction-related GHG emissions. However, lead agencies are required to quantify and disclose GHG emissions that would occur during construction. The SCAQMD suggests that construction GHG emissions be amortized over the life of the project (defined as 30 years), added to the operational emissions, and compared to the applicable interim GHG significance threshold tier.

Using CalEEMod, it is estimated that the proposed project would generate a total of approximately 1,432.0 MT CO_2e during construction of the project. When annualized over the 30-year life of the project, annual emissions would be 47.7 MT CO_2e.

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

GHG emissions were estimated using CalEEMod. Table 4.12.A shows the estimated operational GHG emissions for the proposed project. Energy emissions are the largest source of GHG emissions for the project, at approximately 47 percent of the project total. Mobile sources are the next largest category, at approximately 31 percent. Waste and water sources are about 15 percent and 4 percent of the total emissions, respectively. Stationary sources are about 2 percent of the total emissions. Area-source emissions make up 1 percent of the total emissions.

As discussed above, a project would have less than significant GHG emissions if it would result in operational GHG emissions of less than the SCAQMD threshold of 3,000 MT CO_2e per year. Based on the analysis results, when the amortized annual construction emissions are added to the annual operation emissions, the proposed project is anticipated to generate approximately 551.4 MT CO_2e per year, which is well below the SCAQMD's 3,000 MT CO_2e per year threshold. Therefore, operation of the proposed project would not generate significant GHG emissions that would have a significant effect on the environment. Impacts would be less than significant, and no mitigation would be required.

Table 4.12.A: Greenhouse Gas Emissions

Emission Type	Operational Emissions (MT/yr)				
	CO_2	CH_4	N_2O	CO_2e	Percentage of Total
Mobile Source	155.9	<0.1	<0.1	158.2	31
Area Source	1.5	<0.1	<0.1	1.5	1
Energy Source	237.1	<0.1	<0.1	238.0	47
Water Source	12.6	0.2	<0.1	19.3	4
Waste Source	21.4	2.1	0.0	74.9	15
Stationary Sources	11.7	<0.1	<0.1	11.8	2
Total Operational Emissions				**503.7**	**100**
Amortized Construction Emissions				47.7	—
Total Annual Emissions				**551.4**	**—**
SCAQMD Threshold				**3,000**	
Exceedance?				**No**	

Source: Compiled by LSA (November 2024).
CH_4 = methane
CO_2 = carbon dioxide
CO_2e = carbon dioxide equivalent
GHG = greenhouse gas
MT/CO_2e = metric tons of carbon dioxide equivalent
MT/yr = metric tons per year
N_2O = nitrous oxide
SCAQMD = South Coast Air Quality Management District

Question 4.12 b): Conflict with an applicable plan, policy, or regulation adopted for the purpose of reducing the emissions of greenhouse gases?

Response to Question 4.12 b):

Less than Significant Impact. The following discussion evaluates the proposed project according to the goals of the 2022 Scoping Plan, Executive Order (EO) B-30-15, Senate Bill (SB) 32, Assembly Bill (AB) 197, AB 1279, and SCAG's 2024–2050 RTP/SCS.

2022 Scoping Plan. EO B-30-15 added the immediate target of reducing GHG emissions to 40 percent below 1990 levels by 2030. SB 32 affirms the importance of addressing climate change by codifying into statute the GHG emissions reduction target of at least 40 percent below 1990 levels by 2030 contained in EO B-30-15. CARB released the 2017 Scoping Plan to reflect the 2030 target set by EO B-30-15 and codified by SB 32.[30] SB 32 builds on AB 32 and keeps us the State on its path toward achieving its 2050 objective of reducing emissions to 80 percent below 1990 levels. AB 197, the companion bill to SB 32, provides additional direction to CARB that is related to the adoption of strategies to reduce GHG emissions. Additional direction in AB 197 that is intended to provide easier public access to air emission data collected by CARB was posted in December 2016. AB 1279 codifies the State goals of achieving net carbon neutrality by 2045 and maintaining net negative GHG emissions thereafter.

The State's 2022 Scoping Plan[31] assesses progress toward the statutory 2030 target while laying out a path to achieving carbon neutrality no later than 2045. The 2022 Scoping Plan focuses on outcomes needed to achieve carbon neutrality by assessing paths for clean technology, energy deployment, natural and working lands, and others, and is designed to meet the State's long-term climate objectives and support a range of economic, environmental, energy security, environmental justice, and public health priorities.

[30] CARB. 2022 Scoping Plan for Achieving Carbon Neutrality. December. Website: https://ww2.arb.ca.gov/sites/default/files/2023-04/2022-sp.pdf (accessed November 2024).
[31] CARB. 2017. California's 2017 Climate Change Scoping Plan. November.

The 2022 Scoping Plan focuses on building clean energy production and distribution infrastructure for a carbon-neutral future, including transitioning existing energy production and transmission infrastructure to produce zero-carbon electricity and hydrogen, and utilizing biogas resulting from wildfire management or landfill and dairy operations, among other substitutes. The 2022 Scoping Plan states that in almost all sectors, electrification will play an important role. The 2022 Scoping Plan evaluates clean energy and technology options and the transition away from fossil fuels, including adding four times the solar and wind capacity by 2045 and about 1,700 times the amount of current hydrogen supply. As discussed in the 2022 Scoping Plan, EO N-79-20 requires that all new passenger vehicles sold in California be zero-emission by 2035 and that all other fleets transition to zero-emission as fully as possible by 2045, which will reduce the percentage of fossil fuel combustion vehicles.

- **Energy-efficient measures** are intended to maximize energy-efficiency building and appliance standards, pursue additional efficiency efforts including new technologies and new policy and implementation mechanisms, and pursue comparable investment in energy efficiency from all retail providers of electricity in California. In addition, these measures are designed to expand the use of green building practices to reduce the carbon footprint of California's new and existing inventory of buildings. The proposed project would limit the use of natural gas to the culinary kitchen, with the rest of the buildings designed to be all electric. The elimination of natural gas in new development would help projects implement their "fair share" of achieving long-term 2045 carbon neutrality consistent with State goals. As such, if a project does not utilize natural gas, a lead agency can conclude that it would be consistent with achieving the 2045 neutrality goal and will not have a cumulative considerable impact on climate change.[32] Therefore, the proposed project would help the State remain on track to meeting its carbon neutrality goals. In addition, the proposed project would comply with the latest California Energy Code and CALGreen standards regarding energy conservation and green building standards. The proposed project would also be LEED certified. Therefore, the proposed project would comply with applicable energy measures.
- **Water conservation and efficiency measures** are intended to continue efficiency programs and use cleaner energy sources to move and treat water. Increasing the efficiency of water transport and reducing water use would reduce GHG emissions. As noted above, the project would be required to comply with the latest CALGreen standards, which include a variety of different measures, including reduction of wastewater and water use. In addition, the proposed project would be required to comply with the California Model Water Efficient Landscape Ordinance. The proposed project would include water efficient, drought tolerant landscaping, and low flow fixtures. Therefore, the proposed project would not conflict with any of the water conservation and efficiency measures.
- The goal of **transportation and motor vehicle measures** is to develop regional GHG emission reduction targets for passenger vehicles. Specific regional emission targets for transportation emissions would not directly apply to the proposed project. However, vehicles traveling to the project site would comply with the Pavley II (LEV III) Advanced Clean Cars Program. The second phase of Pavley standards will reduce GHG emissions from new cars by 34 percent from 2016 levels by 2025. Therefore, the proposed project would not conflict with the identified transportation and motor vehicle measures.

[32] Bay Area Air Quality Management District (BAAQMD). 2022. Justification Report: CEQA Thresholds for Evaluating the Significance of Climate Impacts From Land Use Projects and Plans. April. Website: https://www.baaqmd.gov/~/media/files/planning-and-research/ceqa/final-ceqa-thresholds-report-for-climate-impacts-02092022-alt-pdf.pdf?rev=a3f6b70f316b4637864fb0b2cff78ebd&sc_lang=vi-vn (accessed November 2024).

- Therefore, the proposed project would comply with existing State regulations adopted to achieve the overall GHG emission reduction goals identified in the 2022 Scoping Plan, EO B-30-15, SB 32, AB 197, and AB 1279.

SCAG's 2024-2050 RTP/SCS. SCAG's 2024–2050 RTP/SCS[33] identifies land use strategies that focus on new housing and job growth in areas served by high-quality transit and other opportunity areas would be consistent with a land use development pattern that supports and complements the region's proposed transportation network. The core vision in the 2024–2050 RTP/SCS is to better manage the existing transportation system through design management strategies, integrate land use decisions and technological advancements, create complete streets that are safe for all roadway users, preserve the transportation system, expand transit, and foster development in transit-oriented communities. The 2024–2050 RTP/SCS contains transportation projects to help more efficiently distribute population, housing, and employment growth, as well as a forecasted development pattern that is generally consistent with regional-level General Plan data. The forecasted development pattern, when integrated with the financially constrained transportation investments identified in the 2024–2050 RTP/SCS, would reach the regional target of reducing GHG emissions from autos and light-duty trucks by 19 percent per capita by 2035 (compared to 2005 levels). The 2024–2050 RTP/SCS does not require that local General Plans, Specific Plans, or zoning be consistent with the 2024–2050 RTP/SCS, but it provides incentives for consistency for governments and developers.

Implementing SCAG's RTP/SCS will greatly reduce the regional GHG emissions from transportation, helping to achieve statewide emissions reduction targets. As demonstrated in Section 4.7, Air Quality, the proposed project does not meet the criteria identified in *State CEQA Guidelines* Section 15205.b.2 (Projects of Statewide, Regional, or Areawide Significance) for projects of statewide, regional, or areawide significance. In addition, the proposed project would not require a change to the General Plan land use designation or the current zoning, and would be consistent with the City's General Plan and Zoning Ordinance. As such, the proposed project would not interfere with SCAG's ability to achieve the region's GHG reduction target of 19 percent below 2005 per capita emissions levels by 2035. Furthermore, the proposed project is not regionally significant per *State CEQA Guidelines* Section 15206 and as such, it would not conflict with the SCAG RTP/SCS targets since those targets were established and are applicable on a regional level.

The proposed project would include the demolition of existing uses to construct a new YTC, which would include housing for youth, dining, culinary, education, and vocational spaces along with recreational exterior areas for combined total of 117,905 sf of building area. The proposed project would be consistent with existing local planning assumptions for the project site. Therefore, it is anticipated that implementation of the proposed project would not interfere with SCAG's ability to implement the regional strategies outlined in the RTP/SCS. Impacts would be less than significant, and no mitigation is required.

[33] Southern California Association of Governments (SCAG). 2024. Connect SoCal 2024–2050 Regional Transportation Plan/ Sustainable Communities Strategy. April. Website: https://scag.ca.gov/sites/main/files/file-attachments/23-2987-tr-demographics-growth-forecast-final-040424.pdf?1712261839 (accessed November 2024).

4.13 *Hazards and Hazardous Materials*

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

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

The following analysis is based upon information presented in the various Asbestos Survey Reports and Lead Based Paint Inspection Reports prepared for each of the ten buildings proposed for demolition by MTGL, Inc. in April 2024 (compiled in Appendix G of this IS/MND).

Question 4.13 a): Create a significant hazard to the public or the environment through the routine transport, use, or disposal of hazardous materials?

Response to Question 4.13 a):

Less than Significant With Mitigation Incorporated. State regulations defines "hazardous material" as a substance or combination of substances that may cause or significantly contribute to an increase in serious, irreversible, or incapacitating illness or may pose a substantial presence or potential hazard to human health or the environment when improperly treated, stored, transported, or disposed of, or otherwise managed (22 CCR Section 66261.10). Hazardous materials have the potential to impact public health and the environment, and risk is determined by the probability of exposure and to the inherent toxicity of a material.

Materials are considered by the U.S. Environmental Protection Agency (USEPA) and State of California to be asbestos containing if at least one sample collected from the area shows asbestos present in an amount greater than one percent. Similarly, State regulation defines asbestos-containing construction materials as materials containing greater than one-tenth of one percent asbestos by weight (CCR Title 8, Section 1529). Asbestos containing materials (ACM) are regulated by federal, State, and local agencies including the National Emission Standards for Hazardous Air Pollutants (NESHAP).

The lead-based paint testing conducted for the proposed project was conducted in accordance with State regulations (17 CCR Section 35001) and the U.S. Department of Housing and Urban Developments (HUD) *Guidelines for the Evaluation and Control of Lead-Based Paint Hazards in Housing, Chapter 7 Lead-Based Paint Inspections*, published in June 1995 and revised in 1997. The State, HUD, and the USEPA currently define lead-based paint as paints or other surface coatings, which contain lead equal to or greater than 1 milligram (mg) per square centimeter, or equal to or greater than 0.5 percent by weight.

Construction. The proposed project includes the demolition of ten existing buildings and the redevelopment of improved facilities within the Campus. The Asbestos Survey Reports and Lead Based Paint Inspection Reports (Appendix G to this IS/MND) concluded that several of the existing buildings to be demolished contain trace amounts of asbestos and lead. These assessments identified lead in seven buildings and asbestos in eight buildings. The findings of identified hazardous materials by building are provided in Table 4.13.A:

Table 4.13.A: Asbestos Survey Reports and Lead Based Paint Inspection Reports Results

Building	Asbestos Present?	Lead Present?
Old Visiting Center Building	**Yes (*Presumed*).** Roofing material was inaccessible but assumed to contain asbestos (roofing materials are assumed to contain asbestos until further testing can determine otherwise).	**No.** No lead-based paint or lead containing components were identified in the components tested.
Units O and M	**Yes.** Asbestos was identified in existing roof mastic on the north end of Building 2 under vinyl cap sheet.	**Yes.** Intact lead containing less than 1 mg per cm^2 was identified in existing pink ceramic wall, base and wall tile, porcelain sink, and yellow countertop in the building's bathrooms, kitchen, rooms, and kitchenette.
Building #9 (Units R and S)	**Yes.** Asbestos was identified in the pipe elbow insulation at more than one percent throughout the building.	**Yes.** Intact lead containing more than 1 mg per cm^2 was identified in the existing green exterior, metal canopy and frame, yellow ceramic wall, base and wall tile, and yellow countertop in the building's frame, bathrooms, and kitchenettes. Additionally, deteriorated lead containing more than 1 mg per cm^2 was identified in porcelain sinks within the building's mop/storage rooms.
Library and Offices Building	**No.** Asbestos was not identified in the building.	**No.** No lead-based paint or lead containing components were identified in the components tested.
Building #10 Classrooms	**Yes.** Asbestos was identified in the pipe elbow insulation at more than one percent throughout the building.	**Yes.** Intact lead containing less than 1 mg per cm^2 was identified in the existing pink ceramic wall, base and wall tile, tan countertop, and porcelain sink located in the building's bathrooms, classrooms, and kitchens. Additionally, deteriorated lead containing less than 1 mg per cm^2 was identified in the existing painted entry door/ frames and window frames.
Building #11 Classrooms	**Yes.** Asbestos was identified in the fissured ceiling tile and floor tile and mastic at more than one percent and cove base adhesive at less than one percent throughout the building.	**No.** Intact lead containing more than 1 mg per cm^2 was identified in ceramic wall and base tile located in the classroom bathrooms.

Table 4.13.A: Asbestos Survey Reports and Lead Based Paint Inspection Reports Results

Building	Asbestos Present?	Lead Present?
Building #5 (Units A and I)	**Yes.** Asbestos was identified in the pipe elbow insulation at more than one percent throughout the building and fissured ceiling tile at more than one percent in the hallway.	**Yes.** Intact lead containing more than 1 mg per cm^2 was identified in the green and yellow ceramic walls in staff restrooms.
Building #19 Classrooms	**No.** Asbestos was not identified in the building.	**No.** No lead-based paint or lead containing components were identified in the components tested.
Building #12 Classrooms	**Yes.** Asbestos was identified in the pipe insulation wrap and pipe elbow insulation at more than one percent throughout the building.	**Yes.** Intact lead containing less than 1 mg per cm^2 was identified in the existing green ceramic wall, base tile, and painted entry door/frames located in the building's bathrooms. Additionally, deteriorated lead containing less than 1 mg per cm^2 was identified in the porcelain sink located in the electrical room.
Building #16 (Units G, H, J, and K)	**Yes.** Asbestos was identified in the fissured ceiling tile at more than one percent in the hallway ceilings and pipe elbow wrap at more than one percent throughout the building.	**Yes.** Intact lead containing more than 1 mg per cm^2 was identified in the existing green ceramic wall and base tile located in the building's bathrooms. Additionally, deteriorated lead containing more than 1 mg per cm^2 was identified in porcelain sinks located in the hallway laundry rooms.

Sources: Various Asbestos Survey Reports and Lead Based Paint Inspection Reports prepared by MTGL, Inc. in April 2024 (compiled as Appendix G of this IS/MND).

Current U.S. EPA and CalEPA regulations do not require lead-based paint to be removed prior to demolition, unless found to be loose and peeling. However, the proposed project would follow the Lead Safe Work Practice Requirements for Maintenance, Renovation or Remodeling (RRP Rule) (40 CFR 745, Subpart E). The EPA RRP Rule requires anyone who works in pre-1978 structures to become a USEPA Certified Renovator by taking Lead Safe Work Practices classes by a USEPA accredited training provider.

Additionally, all buildings found to contain lead would be required to comply with State regulations requiring the minimization of lead dust hazards and the inclusion of worker protection during demolition (CCR Title 8, Section 1532.1). As such, demolition of these existing structures under the proposed project would not create a significant hazard to the public.

According to the findings in the Asbestos Survey Reports (see Appendix G of this IS/MND), demolition of existing buildings for the proposed project could create a hazard to the public or environment through exposure to asbestos-containing materials. However, the Asbestos Survey Reports identify criteria, in accordance with Occupational Safety and Health Administration (OSHA) requirements for Federal, State and Local rules and regulations to reduce airborne fiber concentrations of asbestos. As described in

Mitigation Measure (MM) HAZ-1 below, the proposed project would be required to comply with the recommendations set forth in the Asbestos Survey Reports.

Demolished building materials would be hauled from the project site via 8 one-way hauling trips per day during the demolition phase, which would consist of approximately 34 working days. During this period, it would be ensured that the transportation of demolition waste would not represent a harm to receptors along potential hauling routes. As discussed in greater detail in Section 4.23, Utilities and Service Systems, the project Applicant would either self-haul demolition waste to a diversion facility approved by OC Waste and Recycling (OCWR), or would contract with an OCWR-approved hauler for the removal of the waste from the project site. Regardless of whether these materials are hauled by the project Applicant or by an approved hauler, the materials would be transported in accordance with all of the regulations described above, and in compliance with MM HAZ-1. With the proposed project's adherence to MM HAZ-1, potential exposure to hazardous asbestos-containing materials during project demolition and construction activities would be minimized to a less than significant level.

Operation. The proposed project would replace existing institutional structures with upgraded facilities providing the same general services, which would include, but are not limited to, medical and behavioral health services, living units, culinary services, educational services. Hazardous substances associated with these land uses are typically limited in both amount and use such that they can be contained without impacting the environment. Project operation would involve the use of potentially hazardous materials (e.g., solvents, cleaning agents, paints, fertilizers, and pesticides) typical of these land uses that, when used correctly and in compliance with existing laws and regulations, would not result in a significant hazard to people in the vicinity of the proposed project. No manufacturing, industrial, or other uses utilizing large amounts of hazardous materials would occur within the project site.

Long-term operational activities typical of the proposed medical facility are likely to involve the use and storage of small quantities of potentially hazardous materials in the form of cleaning solvents, radiologicals, pesticides, sterilants, and disinfectants, and the handling of discarded needles. For example, maintenance activities related to the sanitizing of patient assessment and care areas may involve the limited use of cleaning chemicals and disinfectants. As stated previously, these types of activities do not involve the use of a large or substantial volume of hazardous materials. In addition, such materials would be contained, stored, and used in accordance with manufacturers' instructions and handled in compliance with applicable federal, State, and local regulations. Any associated risk would be less than significant through compliance with these standards and regulations.

Further, OCWR maintains a directory of business hazardous materials and hazardous waste collection companies to assist with the properly disposal of hazardous waste materials.[34] It is anticipated that the proposed project would adhere to such programs, or medical waste collection services, to properly dispose of household hazardous waste.

Therefore, potential impacts from the routine transport, use, or disposal of hazardous materials resulting from operation of the proposed project would be less than significant with mitigation incorporated.

[34] Orange County Waste and Recycling Business Hazardous Waste. Website: https://oclandfills.com/hazardous-waste/business-hazardous-waste-referrals (accessed November 11, 2024).

Mitigation Measure:

MM HAZ-1 **Compliance with the Recommendations in the Asbestos Survey Reports.** Prior to and during demolition, a State of California Licensed Abatement Contractor shall perform removal of all asbestos containing materials. Removal of Asbestos Containing Materials shall be conducted in accordance with U.S. Environmental Protection Agency (USEPA) and Occupational Safety and Health Administration (OSHA) requirements and federal, State, and local rules and regulations to reduce airborne fiber concentrations. In addition, personal protective equipment and decontaminant methods shall be used by all workers on the project site.

Question 4.13 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?

Response to Question 4.13 b):

Less than Significant With Mitigation Incorporated. The proposed project includes the demolition of ten existing buildings and the reconstruction of new facilities that would maintain existing institutional uses. The Asbestos Survey Reports and Lead Based Paint Inspection Reports prepared for the proposed project (Appendix G to this IS/MND) indicate that trace amounts of lead and asbestos exist in many of the buildings to be demolished. All proposed demolition and construction of the proposed project, as well as hauling off demolition and construction waste, would occur in compliance of federal, State, and local regulations regarding hazardous materials, including regulations applicable to treatment and removal of asbestos and lead (see the Response to Question 4.13 a)), and compliance with MM HAZ-1, which would ensure that no significant impacts related to the release of hazardous materials into the environment would occur during construction of the proposed project.

As previously stated, operations of the proposed project would use limited amounts of hazardous substances associated with residential uses, the potential release of which would not create a significant hazard to the public or the environment. Based on this, and the information presented above, the proposed project would not 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. Impacts would be less than significant with incorporation of MM HAZ-1.

Question 4.13 c): Emit hazardous emissions or handle hazardous or acutely hazardous materials, substances, or waste within one-quarter mile of an existing or proposed school?

Response to Question 4.13 c):

Less than Significant With Mitigation Incorporated. The proposed project site is located within 0.25 mile of the Orangewood Children's Home and the Children's Home Society of California, both of which include educational programs on-site. The proposed project includes the demolition of ten existing buildings, some of which are educational buildings, and the redevelopment of improved facilities, including improved educational, classroom, library, and vocational facilities. As described above, the demolition and construction of the proposed project would comply with all federal, State, and local requirements relating to hazardous materials (see Response to Question 4.13 a)), and MM HAZ-1. Compliance would ensure that any hazardous materials resulting from demolition and construction activities would be

handled in a manner that would not result in effects to nearby school uses. While demolition and construction activities would be limited to the perimeter of the Campus and would therefore be contained within the existing site, waste from construction and demolition activities may be hauled away from the project site along Justice Center Way, which serves as the northern boundary of the Orangewood Children's Home. However, as previously stated, these hauling trips would be conducted in accordance with all federal, State, and local requirements relating to hazardous materials and MM HAZ-1. Therefore, potentially significant impacts related to emission or handling of hazardous materials in proximity to an existing or proposed school would be less than significant with incorporation of MM HAZ-1.

Question 4.13 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?

Response to Question 4.13 d):

No Impact. The State of California Hazardous Waste and Substances Site List (also known as the Cortese List) is a planning document used by State and local agencies and by private developers to comply with CEQA requirements in providing information about the location of hazardous materials sites. California Government Code Section 65962.5 requires the California Environmental Protection Agency to update the Cortese List annually.[35]

The Department of Toxic Substances Control's (DTSC) EnviroStor database provides DTSC's component of Cortese List data by identifying sites that have known contamination or sites for which further investigation is warranted. According to the EnviroStor mapper, no potential cleanup sites are located within the project site. The closest potential cleanup site to the proposed project site is approximately 0.4 miles northwest of the project site, off West Chapman Avenue, at the Children's Hospital of Orange County (CHOC) Pediatric Urgent Care Clinic. This site is under evaluation but the record does not specify previous use(s) that may have caused contamination.[36] In addition, the State Water Resource Control Board's (SWRCBs) Geotracker Mapper does not identify any hazardous materials sites within the project site, and the nearest active site is located at the same CHOC Pediatric Urgent Care Clinic facility.[37] While CHOC facility is still considered active, the Geotracker website does not list this site as a Leaking Underground Storage Tank (LUST) site or a site of groundwater or soil contamination concern. Therefore, any hazardous materials are likely contained on-site and would not impact the proposed project site. In addition, intervening structures between this site and the project site, such as buildings comprising the UCI Medical Center, would eliminate any risk or threat posed by the CHOC facility.

As such, the project site is not identified as a site of concern within any database compiled pursuant to Government Code Section 65962.5. The proposed project would not pose a significant hazard to the public or the environment, and no impacts would occur. As such, no mitigation is necessary.

[35] Department of Toxic Substances Control (DTSC). Site Mitigation and Restoration Program. Website: https://dtsc.ca.gov/dtscs-cortese-list/ (accessed November 2024).

[36] EnviroStor Mapper. Department of Toxic Substances Control. Website: https://www.envirostor.dtsc.ca.gov/public/map/ (accessed October 2024).

[37] State Water Resource Control Board (SWRCB). Geotracker Map. Website: https://geotracker.waterboards.ca.gov/map/?CMD=runreport&myaddress=Sacramento (accessed November 2024).

Question 4.13 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?

Response to Question 4.13 e):

No Impact. The proposed project site is not located near or within an airport land use plan, nor within two miles of a public or public use airport. The closest airport to the project site is John Wayne Airport, located approximately 7.5 miles south of the project site. Therefore, no impact would occur, and no mitigation is necessary.

Question 4.13 f): Impair implementation of or physically interfere with an adopted emergency response plan or emergency evacuation plan?

Response to Question 4.13 f):

Less than Significant Impact. As discussed in the Response to Question 4.24 a-*i*) of Section 4.24, Wildfire, an emergency plan for the site is a required element of the existing facility and the proposed project for compliance with the State Fire Code and California Code of Regulations. According to the City of Orange General Plan Safety Element Generalizes Evacuation Corridors Map, the City Drive South is designated as an evacuation corridor. In addition, according to the City or Orange Local Hazard Mitigation Plan, Orangewood Avenue is the only road within proximity to the project site designated as an evacuation route. However, as noted by the City's Emergency Operations Plan, evacuation routes for emergency situations are contingent upon the scale and location of the emergency and would change depending on the direction of evacuation required by the situation. Demolition and construction of the proposed project would be contained within the existing site and would have minimal impact on surrounding roadways as all construction equipment would be staged on-site. Additionally, construction equipment would access the project site via Sidwell Way, keeping both the south and west roadways open in the event of an emergency. In addition, the main site entrance would be located along the northern side of the proposed project site, which is not designated for emergency vehicle access. During construction, temporary delays, road closures, or road obstructions may occur, creating potential minor delays in emergency situations. Demolition debris would be hauled off-site, utilizing main roads to arrive at an OCWR-approved construction and demolition waste diversion facility yet to be determined. The project would not result in any changes to the public street systems and would therefore not create any significant impacts on any emergency plans in the local or regional area. Therefore, any impacts would be less than significant, and no mitigation is necessary.

Question 4.13 g): Expose people or structures, either directly or indirectly, to a significant risk of loss, injury or death involving wildland fires?

Response to Question 4.13 g):

Less than Significant Impact. The proposed project site is in an urbanized and developed area within the City of Orange and is not located near any wildlands or urbanized areas adjacent to wildlands. Therefore, as discussed in greater detail in Section 4.24, Wildfire, of this IS/MND, impacts would be less than significant. No mitigation is required.

4.14 *Hydrology and Water Quality*

Would the project:	**Potentially Significant Impact**	**Less than Significant With Mitigation Incorporated**	**Less than Significant Impact**	**No Impact**
a) Violate any water quality standards or waste discharge requirements or otherwise substantially degrade surface or ground water quality?	☐	☐	☒	☐
b) Substantially decrease groundwater supplies or interfere substantially with groundwater recharge such that the project may impede sustainable groundwater management of the basin?	☐	☐	☒	☐
c) Substantially alter the existing drainage pattern of the site or area, including through the alteration of the course of a stream or river or through the addition of impervious surfaces, in a manner, which would:	☐	☐	☒	☐
i) result in substantial erosion or siltation on- or offsite?	☐	☐	☒	☐
ii) substantially increase the rate or amount of surface runoff in a manner which would result in flooding on- or offsite?	☐	☐	☒	☐
iii) create or contribute runoff water which would exceed the capacity of existing or planned stormwater drainage systems or provide substantial sources of polluted runoff?	☐	☐	☒	☐
d) In flood hazard, tsunami, or seiche zones, risk release of pollutants due to project inundation?	☐	☐	☒	☐
e) Conflict with or obstruct implementation of a water quality control plan or sustainable groundwater management plan?	☐	☐	☒	☐

The following analysis is based upon information presented in the Preliminary WQMP and Preliminary Hydrology Report prepared for the proposed project by Fuscoe Engineering, Inc. in November 2024. These documents are included within this IS/MND as Appendices H and I, respectively.

Question 4.14 a): Violate any water quality standards or waste discharge requirements or otherwise substantially degrade surface or ground water quality?

Response to Question 4.14 a):

Less than Significant Impact. Under existing conditions, the project site is developed with the existing Campus and consists of mostly impervious surfaces, including various youth housing units and support buildings. Pervious areas within the project site consist of ornamental landscaping or grassy recreational fields. Under existing conditions, the site does not include any existing stormwater Best Management Practices (BMPs) to treat runoff prior to discharge. The proposed project would involve demolition of existing Campus structures and the construction of new structures and outdoor spaces in a rearranged layout.

An existing 33-inch reinforced concrete pipe storm drain runs along the project site in the north-south orientation and bisects the project site, serving as a collection point for stormwater runoff generated within the project site under existing conditions. This runoff connects to an existing 42-inch mainline reinforced concrete pipe storm drain, which is located just south of the project site and runs south along The City Drive before discharging into the Santa Ana River, a concrete trapezoidal flood control channel with an earthen bottom managed by the Orange County Flood Control District (OCFCD). The Santa Ana River ultimately flows into the Pacific Ocean between Newport Beach and Huntington Beach.

The proposed project would involve the extension of new laterals as needed to the existing 33-inch storm drain on site. On-site water would be captured and conveyed to these laterals via roof drains, atrium area drains, and catch basins dispersed throughout the project site. Prior to runoff, flows would be treated by infiltration features and/or bioretention features.

Pollutants of concern during construction include, but are not limited to: solid or liquid chemical spills; wastes from paints, stains, sealants, glues, lime, pesticides, herbicides, wood preservatives and solvents, asbestos fibers, paint flakes or stucco fragments; fuels, oils, lubricants, and hydraulic, radiator or battery fluids; concrete, detergent or floatable wastes; wastes from any engine/equipment steam cleaning or chemical degreasing; and super-chlorinated potable water line flushing. Each of these pollutants on its own or in combination with other pollutants can have a detrimental effect on water quality. During construction activities, excavated soil would be exposed, and there would be an increased potential for soil erosion and sedimentation compared to existing conditions. In addition, chemicals liquid products, petroleum products (e.g., paints, solvents, and fuels), and concrete-related waste may be spilled or leaked and have the potential to be transported via stormwater runoff into receiving waters (i.e., the municipal storm drain system which discharges into the Santa Ana River, and ultimately into the Pacific Ocean). Stormwater runoff is regulated by the National Pollutant Discharge Elimination System (NPDES) Program (established through the federal Clean Water Act [CWA]). The objective of the NPDES Program is to control and reduce pollutant discharges to surface water bodies. Compliance with NPDES permits is mandated by State and federal statutes and regulations. Locally, the NPDES Program is administered by the Santa Ana Regional Water Quality Control Board (RWQCB). Construction activities can be subject to the SWRCB NPDES *General Permit for Stormwater Discharges Associated with Construction and Land Disturbance Activities, Order No. 2022-0057-DWQ, NPDES No. CAS000002* (Construction General Permit) depending on the degree of soil disturbance. Any construction activity, including grading, that would result in the

disturbance of 1 acre or more of soil would require compliance with SWRCB's Construction General Permit, which requires preparation of a Stormwater Pollution Prevention Program (SWPPP) and implementation of Construction BMPs to address water quality concerns during construction activities. Construction BMPs would include, but not be limited to, Erosion Control and Sediment Control BMPs designed to minimize erosion and retain sediment on site as well as Good Housekeeping BMPs to prevent spills, leaks, and discharge of construction debris and waste into receiving waters.

The proposed project's operational activities are subject to the NPDES *Permit and Waste Discharge Requirements for Discharges from the Municipal Separate Storm Sewer Systems (MS4s) Draining the Watersheds Within the Orange County Region, Order No. R8-2009-0030, NPDES No. CAS618030 as amended by Order No. R8-2010-0062* (MS4 Permit). The MS4 Permit prohibits discharges, sets limits on pollutants being discharged into receiving waters, and requires implementation of technology-based standards. The MS4 Permit requires co-permittees, including the County of Orange, to develop and implement standard design and post-development BMP guidance to guide application of Low Impact Development (LID) BMPs to the maximum extent practicable. The MS4 Permit also requires preparation of a Water Quality Management Plan (WQMP), implementation of post-construction BMPs, and hydromodification requirements (where applicable) for new development and significant redevelopment projects that qualify as "Priority Development" projects.

Section 7.01 of the City of Orange Municipal Code codifies requirements related to water quality and stormwater discharges with the intention to enhance and protect water quality by prescribing requirements to reduce pollution in surface runoff for all new development and significant redevelopment projects. Chapter 7.01 includes, but is not limited to, general provisions, prohibited discharges, BMP requirements, and monitoring and inspection procedures. Section 7.01.050 of the City's Municipal Code requires that new development projects and significant redevelopment projects adhere to the City's Local Implementation Plan (LIP) prepared as part of a compliance program to satisfy the requirement of the area-wide Drainage Area Management Plan (DAMP) and the Santa Ana RWQCB municipal storm water permit issued to the City. The LIP outlines protocols for citywide projects to implement in order to contribute to regional stormwater pollution control efforts and adhere to the requirements of applicable NPDES permits described above.

Division 13 of the Orange County Code of Ordinances codifies requirements related to water quality and stormwater discharges with the intention to improve water quality by controlling the pollutants which enter the network of storm drains throughout Orange County. Division 13 includes, but is not limited to, general provisions, prohibited discharges, control requirements, and monitoring and inspection procedures.

Section 4-13-50 of Division 13 requires that all new development and significant redevelopment projects under the County's jurisdiction shall be undertaken in accordance with the area-wide 2007 Drainage Area Management Plan (DAMP) and all applicable provisions of the Santa Ana RWCB municipal storm water permit issued to the County. The DAMP provides a blueprint for the County and co-permittees to follow during implementation of stormwater pollution control programs. The County has also prepared a Local Implementation Plan (LIP) as part of a compliance program to satisfy the requirements set forth in the DAMP. The LIP outlines protocols for Countywide projects to implement in order to contribute to regional stormwater pollution control efforts and adhere to the requirements of applicable NPDES permits described above. In addition, all projects requiring discretionary and some requiring ministerial County

approval are required to prepare a WQMP in accordance with the Orange County DAMP.[38] Therefore, all development projects, regardless of priority status, would be required to implement these features where applicable and feasible.

Construction. During construction, the total disturbed soil area would be approximately 7.5 acres. Because construction of the proposed project would disturb greater than 1 acre of soil, the project is subject to the requirements of the Construction General Permit, as specified in Regulatory Compliance Measure (RCM) HYD-1. The Construction General Permit requires preparation of a SWPPP and implementation of construction BMPs during construction activities. Construction BMPs would include, but are not limited to, Erosion Control and Sediment Control BMPs designed to minimize erosion and retain sediment on site as well as Good Housekeeping BMPs to prevent spills, leaks, and discharge of construction debris and waste into receiving waters.

Exploratory borings collected as part of the Geotechnical Investigation prepared for the proposed project encountered groundwater at a depth of approximately 54 ft bgs, while historic high groundwater levels within the project site vicinity are recorded as approximately 30 to 40 ft bgs. As such, a historic high groundwater table of 30 ft bgs shall be used in order to ensure a conservative approach. The maximum depth of excavation anticipated under the proposed project would be 6 ft bgs. Therefore, groundwater dewatering is not anticipated during construction of the proposed project, but still a possibility. As specified in RCM HYD-2, in the event groundwater dewatering activities would occur, the proposed project would comply with the *Waste Discharge Requirements (WDR) Permit for Discharges to Surface Waters That Pose an Insignificant (De Minimis) Threat to Water Quality (Groundwater Discharge Permit)* (Order No. R8-2020-0006, NPDES No. CAG998001). In compliance with the requirements of the Groundwater Discharge Permit, groundwater would be tested and treated (if necessary) prior to discharge to surface waters. With adherence to RCM HYD-2, groundwater dewatering during construction activities, if necessary, would not introduce pollutants to receiving waters at levels that would violate water quality standards or water discharge requirements, degrade water quality, or alter the quality of receiving waters.

Infiltration of stormwater can have the potential to affect groundwater quality in areas of shallow groundwater. As discussed above, the groundwater table was not encountered up to a depth of 54 ft bgs. Pollutants in stormwater are generally removed by soil through absorption as water infiltrates. Therefore, in areas of deep groundwater, there is more absorption potential and, as a result, less potential for pollutants to reach groundwater. Therefore, due to the depth to groundwater, it is not expected that any stormwater that may infiltrate during construction would affect groundwater quality because there is not a direct path for pollutants to reach the groundwater table. Therefore, project construction would not substantially degrade groundwater quality.

With implementation of RCM HYD-1 and RCM HYD-2, which require adherence to the NPDES Construction General Permit and Groundwater Discharge Permit, construction of the proposed project would not interfere with surface water quality standards, waste discharge requirements, and surface water quality.

Operation. The proposed project consists of an institutional campus for youth law violators, designed to emphasize rehabilitation, education, and transition back into society during residence within the project site. The proposed project would also include medical, culinary, administrative buildings. Pollutants of

[38] City of Orange Storm Water Program – Water Quality Management Plans. Website: https://www.cityoforange.org/our-city/departments/public-works/engineering-division/storm-water (accessed November 8, 2024).

concern from long-term operations of the proposed project include suspended solids/sediments, nutrients, heavy metals, pathogens (bacteria/virus), pesticides, oil and grease, and trash and debris.

As previously stated, operational activities are subject to the NPDES MS4 Permit. The MS4 Permit prohibits discharges, sets limits on pollutants being discharged into receiving waters, and requires implementation of technology-based standards. The MS4 Permit requires co-permittees, including the County of Orange, to develop and implement standard design and post-development BMP guidance to guide application of LID BMPs to the maximum extent practicable. The MS4 Permit also requires preparation of a WQMP and implementation of post-construction BMPs, as well as hydromodification requirements for new development and significant redevelopment projects that qualify as "Priority Development" projects.

As previously stated, a Preliminary WQMP has been prepared for the proposed project. The Preliminary WQMP specifies the Site Design and Source Control BMPs that would be implemented to target the pollutants of concern in runoff from the project site in order to reduce impacts to water quality during operation. As specified in RCM HYD-3, the Preliminary WQMP will be refined and finalized during final design based on the final site plan.

Site Design BMPs would also be utilized for treatment of storm water on site using project design features, consistent with the requirements of the North Orange County Model WQMP[39] and Technical Guidance Document (TGD). The proposed project would provide a series of proposed flowthrough planter systems in order to capture and treat stormwater runoff before discharging it into the Santa Ana River Channel. In addition, the proposed project's design may include up to two modular wetlands systems, which would similarly use biofiltration techniques to capture and treat stormwater.

As specified in the Preliminary WQMP, the proposed project would also incorporate Source Control BMPs, including routine non-structural BMPs and routine structural BMPs. Specifically, routine non-structural BMPs under the proposed project include education for property owners, tenants, and occupants; activity restrictions (e.g., no discharges of fertilizer, pesticides, and wastes to streets or storm drains; no hosing down of paved surfaces; no vehicle washing or maintenance); common area landscape management; BMP maintenance; common area litter control; employee training; common area catch basin inspection; and street sweeping private streets and parking lots. Routine structural BMPs to be incorporated into the proposed project include storm drain stenciling and signage; design and construction of trash and material storage areas to reduce pollution introduction; and use of efficient irrigation systems and landscape design.

As discussed previously, infiltration of stormwater could have the potential to affect groundwater quality in areas of shallow groundwater. Due to the depth to groundwater, it is not expected that any stormwater that may infiltrate during construction would affect groundwater quality because there is not a direct path for pollutants to reach groundwater. In addition, the proposed project would be required to implement operational BMPs to pre-treat stormwater before it could reach groundwater. With implementation of RCM HYD-1 through RCM HYD-3, which are required and based on local and State regulations, construction and operational impacts related to waste discharge requirements, water quality standards, and degradation of surface or groundwater quality would be less than significant. No project-specific mitigation is required.

[39] OC Public Works. 2011. Model Water Quality Management Plan (Model WQMP). May.

Regulatory Compliance Measure:

RCM HYD-1 **Construction General Permit.** Prior to issuance of a grading permit, the project Applicant shall obtain coverage under the State Water Resources Control Board (SWRCB) National Pollutant Discharge Elimination System (NPDES) *General Permit for Stormwater Discharges Associated with Construction and Land Disturbance Activities,* Order No. 2022-0057-DWQ, NPDES No. CAS000002 (Construction General Permit). This shall include submission of Permit Registration Documents (PRDs), including a Notice of Intent for coverage under the permit to the State Water Resources Control Board (SWRCB) via the Stormwater Multiple Application and Report Tracking System (SMARTs). The project Applicant shall provide the Waste Discharge Identification Number (WDID) to the Director of the County of Orange (County) Public Works Department, or designee, to demonstrate proof of coverage under the Construction General Permit. Project construction shall not be initiated until a WDID is received from the SWRCB and is provided to the Director of the County Public Works Department, or designee. A Stormwater Pollution Prevention Plan (SWPPP) shall be prepared and implemented for the proposed project in compliance with the requirements of the Construction General Permit. The SWPPP shall identify construction best management practices (BMPs) to be implemented to ensure that the potential for soil erosion and sedimentation is minimized and to control the discharge of pollutants in stormwater runoff as a result of construction activities. Upon completion of construction and stabilization of the site, a Notice of Termination shall be submitted via SMARTs.

RCM HYD-2 **Groundwater Discharge Permit.** If groundwater dewatering is required during construction of the proposed project, the project Applicant shall submit a Notice of Intent (NOI) for coverage under the permit to the Santa Ana RWQCB at least 60 days prior to the start of excavation activities and anticipated discharge of dewatered groundwater to surface waters in order to obtain coverage under the Waste Discharge Requirements (WDR) Permit for Discharges to Surface Waters That Pose an Insignificant (De Minimis) Threat to Water Quality (Groundwater Discharge Permit) (Order No. R8-2020-0006, NPDES No. CAG998001). Groundwater dewatering activities shall comply with all applicable provisions in the Groundwater Discharge Permit, including water sampling, analysis, treatment (if required), and reporting of dewatering-related discharges. Upon completion of groundwater dewatering activities, a Notice of Termination shall be submitted to the Santa Ana RWQCB.

RCM HYD-3 **MS4 Permit.** Prior to the issuance of grading or building permits, the project Applicant shall submit a Final Water Quality Management Plan (WQMP) to the County of Orange (County) Public Works Department, or designee, for review and approval in compliance with the requirements of the NPDES *Permit and Waste Discharge Requirements for Discharges from the Municipal Separate Storm Sewer Systems (MS4s) Draining the Watersheds Within the Orange County Region,* Order No. R8-2009-0030, NPDES No. CAS618030 as amended by Order No. R8-2010-0062 (MS4 Permit). The Final WQMP shall be prepared consistent with the requirements of the North Orange County Technical Guidance Document for Water Quality Management Plans (TGD) and the North Orange County Water Quality Management Plan template, or subsequent guidance manuals. The Final WQMP shall specify the BMPs to be incorporated into the project design to target pollutants of concern in runoff from the project site. The County of Orange (County) Public Works Department, or designee, shall ensure that the BMPs specified in the Final WQMP are incorporated into the final project design, and shall implement, maintain and operate all such BMPs in a timely and reasonably diligent manner.

Question 4.14 b): Substantially decrease groundwater supplies or interfere substantially with groundwater recharge such that the project may impede sustainable groundwater management of the basin?

Response to Question 4.14 b):

Less than Significant Impact.

Construction. Overall, construction of the proposed project would not generate a substantial demand for groundwater. Please refer to Section 4.23, Utilities and Service Systems, for a detailed discussion of water supply and demand during construction of the proposed project. As mentioned previously, according to the Geotechnical Investigation prepared for the proposed project, groundwater was encountered in borings as shallow as 54 ft bgs during a field investigation, while historically high groundwater has been reported at depths of approximately 30 to 40 ft bgs. As previously stated, the proposed project could require excavation activities reaching depths of up to 6 ft bgs. While groundwater dewatering during construction could decrease groundwater supplies or interfere with groundwater recharge, this activity is unlikely to occur during construction of the proposed project. However, because it is still a possibility, the proposed project would adhere to RCM HYD-2. As specified in RCM HYD-2, in the event groundwater dewatering activities would occur, the proposed project would comply with the Groundwater Discharge Permit, under which groundwater would be tested and treated (if necessary) prior to discharge to surface waters. With adherence to RCM HYD-2, groundwater dewatering, if necessary during construction activities, would not interfere with groundwater recharge. In addition, if groundwater dewatering is required during construction of the proposed project, dewatering activities would be temporary, and the volume of groundwater removed would not be substantial. Therefore, construction of the proposed project would not substantially decrease groundwater supplies such that the project may impede sustainable groundwater management or recharge of the basin. Construction impacts associated with substantial decrease in groundwater supplies or interference with groundwater recharge would be less than significant, and no mitigation is required.

Operation. Operations of the proposed project would not directly require groundwater extraction. Water usage within the project site, which may be partially sourced from groundwater sources and supplemented by purchased imported water and surface water. Water usage within the project site would be typical of the proposed land uses, and water services currently utilized within the project site would continue to serve the proposed project. As such, the proposed project would not represent a significant contribution to regional water consumption. Refer to Section 4.23, Utilities and Service Systems, for more details regarding the proposed project's anticipated water usage.

Under current conditions, the project site is developed with the existing Campus, which consists of both pervious and impervious surfaces. According to the Preliminary WQMP, the proposed project would increase the pervious area on the project site (defined as the limits of construction for Phases 1 and 2) by approximately 40 percent. The increase in pervious surface area as a result of project implementation would increase on-site infiltration and therefore would not interfere substantially with groundwater recharge such that the project may impede sustainable groundwater management of the basin. In addition, the reduction in impervious surfaces under the proposed condition would result in reduced peak flow runoff conditions as compared to existing conditions.

For the reasons listed above, and with implementation of RCM HYD-2 if construction dewatering is required, impacts related to the decrease of groundwater supplies or interference with groundwater recharge would be less than significant, and no project-specific mitigation is required.

Question 4.14 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:

Question 4.14 c-*i*): result in substantial erosion or siltation on- or offsite?

Response to Question 4.14 c-*i*):

Less than Significant Impact. An existing 33-inch reinforced concrete pipe storm drain runs along the project site in the north-south orientation and bisects the project site, serving as a collection point for stormwater runoff generated within the project site under existing conditions. This runoff connects to an existing 42-inch mainline reinforced concrete pipe storm drain, which is located just south of the project site and runs south along The City Drive before discharging into the Santa Ana River, and ultimately the Pacific Ocean. The proposed project would involve the extension of new laterals as needed to the existing 33-inch storm drain on site. On-site water would be captured and conveyed to these laterals via roof drains, atrium area drains, and catch basins dispersed throughout the project site.

While the proposed project would not alter the course of an existing stream or river, including the Santa Ana River, the proposed project would result in changes to the ratio of impervious surfaces to pervious surfaces within the project site. Specifically, the proposed project would increase the proportion of pervious surfaces within the project site through the proposed landscaped areas. In addition, the proposed project would involve the extension of new stormwater laterals as needed from the existing reinforced concrete pipe storm drain system on site. Runoff from the project site would be captured and conveyed to these laterals via roof drains, atrium area drains, and catch basins incorporated into the design of the proposed project.

Construction. During construction activities, soil would be exposed and disturbed, drainage patterns would be temporarily altered during grading and other construction activities, and there would be an increased potential for soil erosion and siltation compared to existing conditions. Additionally, during a storm event, soil erosion and siltation could occur at an accelerated rate. As discussed above in Response 4.10(a) and as specified in RCM HYD-1, the Construction General Permit requires preparation of a SWPPP to identify construction BMPs to be implemented as part of the proposed project to reduce impacts to water quality during construction, including those impacts associated with soil erosion and siltation. With compliance with the Construction General Permit as indicated in RCM HYD-1, construction impacts related to on- or off-site erosion or siltation would be less than significant, and no mitigation is required.

Operation. The proposed project would demolish and replace several existing buildings within the Campus and would also include reconfigurations of landscaped open spaces. The proposed reconfiguration of the Campus, including the addition of the Youth Transition Center, would change the existing ratio of impervious to pervious surfaces within the project site. Under proposed conditions, the proportion of pervious surface area would increase by approximately 40 percent from existing conditions, which would subsequently decrease peak flow runoff and volumes from those under existing conditions. Therefore, operations of the proposed project would ensure that the potential for downstream erosion or siltation is less than or equal to existing conditions. Nevertheless, as specified in Regulatory Compliance Measure (RCM) HYD-4, a Final Hydrology Report would be required in order to demonstrate that the proposed project would not increase runoff from the project site beyond that generated under existing conditions.

Hydromodification is defined as hydrologic changes resulting from increased runoff from increases in impervious surfaces. Hydromodification impacts can included changes in downstream erosion and sedimentation. Significant redevelopment projects are subject to specific hydromodification requirements of the North Orange County MS4 Permit and must implement measures for site-design, source control, runoff reduction, stormwater treatment, and baseline hydromodification management. However, according to the *Preliminary WQMP*, the project site is not located in an area of hydrologic condition of concern (HCOC)[40] and is exempt from hydromodification requirements. Because the downstream receiving waters are not susceptible to hydromodification, the proposed project is not anticipated to result in downstream erosion or siltation. Impacts would be less than significant, and no project-specific mitigation is required.

Regulatory Compliance Measure:

RCM HYD-4 **Final Hydrology Report.** Prior to issuance of a grading permit, the Applicant shall prepare a Final Hydrology Report to demonstrate that the post-construction runoff from the project site does not exceed existing conditions. The project Applicant shall provide the Final Hydrology Report to the County of Orange (County) for review and approval.

Question 4.14 c-*ii*): substantially increase the rate or amount of surface runoff in a manner which would result in flooding on- or offsite?

Response to Question 4.14 c-*ii*):

Less than Significant Impact.

Construction. Construction activities would alter the on-site drainage pattern, potentially compacting on-site soil and increasing the potential for flooding compared to existing conditions. As discussed in Response to Question 4.14 c-*i*) above, the Construction General Permit requires preparation of a SWPPP to identify construction BMPs to be implemented as part of the proposed project, as specified in RCM HYD-1. The SWPPP would include construction BMPs to control and direct on-site surface runoff to ensure that flooding does not occur. The County's LIP also requires compliance with all applicable construction BMPs set forth in the Orange County DAMP. Under these requirements, fill slopes at the construction site perimeter must drain away from the top of the slope that the conclusion of each working day, which would reduce the volume of surface runoff beyond the project site. Proper management of stormwater during construction would reduce impacts associated with on and off-site flooding.

Operation. As previously noted, the reconfiguration of the Juvenile Hall Campus under the proposed project would not increase the volume of runoff from the project site compared to existing conditions due to the reduction of impervious surfaces for the proposed condition. The proposed project would also feature BMPs, such as infiltration planters, flow-through filtration planters filters and, potentially, modular wetland systems, in order to further reduce peak flow rates generated within the project site under post-project conditions.

Further, the proposed project would include the construction of on-site storm drain laterals and BMPs in the form of filtration planters and other features listed in the analysis presented above. With the proposed decrease in impervious surfaces and incorporation of stormwater runoff BMPs, operation of the proposed

[40] Areas designated as hydrologic conditions of concern are watersheds of unarmored or soft-armored drainages that are vulnerable to geomorphology changes due to hydromodification.

project would not increase the rate or amount of surface runoff in a manner that would result in flooding on- or off site. Impacts would be less than significant, and no project-specific mitigation is required.

Question 4.14 c-*iii*): create or contribute runoff water which would exceed the capacity of existing or planned stormwater drainage systems or provide substantial sources of polluted runoff?

Response to Question 4.14 c-*iii*):

Less than Significant Impact.

Stormwater Drainage System Capacity. As a co-permittee of the Santa Ana RWQCB, the County of Orange is responsible for ensuring that existing infrastructure is capable of supporting new development and redevelopment under its jurisdiction. As previously stated, the 40 percent increase in pervious surface area under the proposed project would be expected to slightly decrease peak flow and stormwater runoff volumes generated from the project site in comparison to existing conditions. Implementation of BMPs during construction and operation of the proposed project, pursuant to RCM HYD-1, would ensure that the proposed project would not create or contribute runoff water to the project site's stormwater drainage system in excess of the system's capacity. Further, the proposed project would not eliminate or otherwise interfere with the operation of any drainage infrastructure or facilities. Therefore, the proposed project would not exceed the capacity of the existing downstream stormwater drainage system.

Polluted Runoff. As discussed in the Response to Question 4.14 a), pollutants of concern during construction include sediments, trash, petroleum products, concrete waste (dry and wet), sanitary waste, and chemicals, and each of these pollutants on its own or in combination with other pollutants can have a detrimental effect on water quality. Drainage patterns would be temporarily altered during grading and other construction activities, and construction-related pollutants could be spilled, leaked, or transported via storm runoff into adjacent drainages and downstream receiving waters. The proposed project would be required to contain runoff from construction equipment and vehicle washing within the project site unless treated to remove sediment and other pollutants. As previously discussed, the proposed project must comply with the Construction General Permit, as specified in RCM HYD-1, which requires the preparation of a SWPPP and implementation of construction BMPs, both of which would address the presence of pollutants in stormwater generated within the project site.

Expected pollutants of concern from long-term project operations include suspended solids/sediments, nutrients, heavy metals, pathogens (bacteria/virus), pesticides, oil and grease, and trash and debris. As previously discussed, the proposed project's compliance with the DAMP, LIP, and project-specific Final WQMP, as specified in RCM HYD-3, would ensure the implementation of applicable BMPs to target pollutants of concern during operations of the proposed project. Further, as discussed in the Preliminary Drainage Report and the analysis above, the proposed project would decrease peak flow stormwater runoff volumes from existing conditions. As such, the proposed project would not discharge substantial sources of polluted runoff from the project site during operations.

With compliance with applicable regulations, including the Construction General Permit and MS4 permit as specified in RCM HYD-1 and RCM HYD-3, impacts associated with creating or contributing runoff water which would exceed the capacity of existing or planned stormwater drainage systems or provide substantial additional sources of polluted runoff would be less than significant, and no project-specific mitigation is required.

Question 4.14 c-iv): Impede or redirect flood flows?

Less than Significant Impact. According to the Federal Emergency Management Agency (FEMA) Flood Insurance Rate Map (FIRM) No. 06059C0142J (effective since December 3, 2009), the project site is classified as Zone X, Area with Reduced Flood Risk due to Levee. As such, the project site is protected from the 1-percent-annual-chance or greater flood hazard by a levee system along the Santa Ana River channel. In addition, the project site sits on an elevated grade from the Santa Ana River channel, and does not propose any improvements to the channel. Further, according to both the City of Orange General Plan Public Safety Element[41] and the Orange County General Plan Safety Element,[42] the project site is not within a 100-year or 500-year flood zone.

According to the Safety Element of the County of Orange General Plan (2010), the project site is located within both the Santiago Reservoir Inundation Area and the Prado Dam Inundation Area.[43] However, as stated in the Geotechnical Investigation, these reservoirs are continually monitored by various governmental agencies in order to prevent the threat of dam failure. Further, various measures and practices are in place to ensure that the dams are capable of withstanding the maximum considered earthquake (MCE) for each site. Therefore, the potential for inundation at the project site as a result of an earthquake-induced dam failure is considered insignificant.

Based on the information presented above, the project site is not considered at risk of flooding from storm events or dam failure. Therefore, the proposed project would not have the potential to impede or redirect flood flows. Impacts would be less than significant, and no mitigation is required.

Question 4.14 d): In flood hazard, tsunami, or seiche zones, risk release of pollutants due to project inundation?

Response to Question 4.14 d):

Less than Significant Impact. As discussed above in the Response to Question 4.14 c-*iv*), the project site is not located within an area susceptible to flood hazards and would therefore would not result in the risk of releasing pollutants during flooding.

Tsunamis are ocean waves generated by tectonic displacement of the seafloor associated with shallow earthquakes, seafloor landslides, rock falls, and exploding volcanic islands. Upon reaching shallow coastal waters, the waves can reach up to 50 ft in height, causing great devastation to near-shore structures. The project site is not located within a coastal area, and is located approximately 11 miles from the Pacific Ocean coastline. Therefore, the project site is not subject to inundation from tsunamis, and there is no risk of release of pollutants due to inundation from tsunami.

Seiching occurs when seismic ground shaking induces standing waves (seiches) inside water retention facilities (e.g., reservoirs and lakes). Such waves can cause retention structures to fail and flood downstream properties. According to the Geotechnical Investigation, there are no large lakes, reservoirs, or other water retention facilities in the vicinity of the project site; therefore, the project site is not subject

[41] City of Orange. 2015. City of Orange General Plan Public Safety Element. Website: https://www.cityoforange.org/home/showpublisheddocument/214/637698172567530000 (accessed November 11, 2024).

[42] County of Orange. 2012. Orange County General Plan Safety Element. Website: https://ocds.ocpublicworks.com/sites/ocpwocds/files/import/data/files/40234.pdf (accessed November 11, 2024).

[43] City of Orange. 2015. City of Orange General Plan Public Safety Element. Website: https://www.cityoforange.org/home/showpublisheddocument/214/637698172567530000 (accessed November 11, 2024).

to inundation from seiche waves, and there is no risk of release of pollutants due to inundation from seiche.

Based on the information presented above, the project site is not at risk of pollutant release associated with inundation from a flood, tsunami, or seiche. Impacts would be less than significant, and no mitigation is required.

Question 4.14 e): Conflict with or obstruct implementation of a water quality control plan or sustainable groundwater management plan?

Response to Question 4.14 e):

Less than Significant Impact. As previously stated, the project site is within the jurisdiction of the Santa Ana RWQCB. The Santa Ana RWQCB has adopted a Water Quality Control Plan (i.e., Basin Plan) that designates beneficial uses for all surface and groundwater within their jurisdiction and establishes the water quality objectives and standards necessary to protect those beneficial uses. As summarized below, the project would comply with the applicable NPDES permits and would implement construction and operational BMPs to reduce pollutants of concern in stormwater runoff.

As discussed in the Response to Question 4.14 a), during construction activities, excavated soil would be exposed, and there would be an increased potential for soil erosion and sedimentation compared to existing conditions. In addition, chemicals, liquid products, petroleum products (e.g., paints, solvents, and fuels), and concrete-related waste may be spilled or leaked and have the potential to be transported via stormwater runoff into receiving waters. As specified in RCM HYD-1, the proposed project would be required to comply with the NPDES Construction General Permit, which requires preparation of a SWPPP and implementation of construction BMPs to control stormwater runoff and discharge of pollutants.

As previously discussed, the primary pollutants of concern during project operations are suspended solids/sediments, nutrients, heavy metals, pathogens (bacteria/virus), pesticides, oil and grease, and trash and debris. As discussed in RCM HYD-3, a final WQMP would be prepared in compliance with the North Orange County MS4 Permit. The final WQMP would detail the Site Design, LID, and Source Control and/or Treatment Control BMPs that would be implemented to treat stormwater runoff and reduce impacts to water quality during operation. The proposed biotreatment BMPs (modular wetland systems) included within the design of the proposed project would treat stormwater runoff.

Because the proposed project would comply with applicable NPDES provisions, including preparation of a final WQMP, and includes implementation of construction and operational BMPs to reduce pollutants of concern in stormwater runoff, the project would not result in water quality impacts that would conflict with Santa Ana RWQCB's Basin Plan.

As discussed in the Response to Question 4.14 a), due to the depth to groundwater in comparison to anticipated excavation activities, it is not expected that any stormwater that may infiltrate during construction would affect groundwater quality because pollutants in stormwater are generally removed by soil through absorption as water infiltrates. In addition, the project would be required to implement operational BMPs to treat stormwater before it could reach groundwater. Additionally, groundwater extraction would not occur during operation of the proposed project as water services currently utilized within the project site would continue to serve the proposed project. Therefore, the proposed project does not have the potential to substantially impact groundwater quality, interfere with groundwater recharge, or decrease groundwater supplies. For the reasons outlined above and with implementation of

RCM HYD-1 through RCM HYD-4, a less than significant impact would occur related to conflict with or obstruction implementation of water quality control plans or sustainable groundwater management plans, and no project-specific mitigation is required.

4.15 *Land Use and Planning*

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

Question 4.15 a): Physically divide an established community?

Response to Question 4.15 a):

No Impact. As stated in Chapter 3.0, Project Description, the project site is currently occupied by various secure facilities that provide housing, support, and rehabilitation to juvenile law offenders. The proposed project involves the demolition of existing structures, including housing units within the project site, which would be replaced by upgraded structures. These housing units are institutional in nature and therefore are not considered to be an established community. The project site is purposely divided from adjacent land uses by the existing security perimeter, which would be maintained and reconfigured as necessary under the proposed project. The project site would maintain existing physical barriers, with modifications, and would not introduce any new physical barriers. As such, the proposed project would not physically divide an established community, and no impact would occur. No mitigation is required.

Question 4.15 b): Cause a significant environmental impact due to a conflict with any applicable land use plan, policy, or regulation adopted for the purpose of avoiding or mitigating an environmental effect?

Response to Question 4.15 b):

Less than Significant Impact.

County of Orange General Plan. As required by Section 65300 of the California Government Code, the County of Orange has adopted a long-term, comprehensive plan for its future growth and land use decisions. Under current conditions, the Campus serves the County and its residents by providing a safe location for juvenile law violators to undergo behavioral rehabilitation and serve time assigned based upon specific law violations.

The proposed project would ultimately improve the existing institution in order to better meet the goals of the County pertaining to reformative programs and alternatives to incarceration. Not only would the

proposed project meet all applicable requirements for juvenile detention facilities, but it would also provide additional services to ensure the well-being of youth residents and provide a more human-centered approach to juvenile rehabilitation. The Youth Transition Center would provide comprehensive support to youths as they transition from juvenile detention to external society, which is intended to increase their chances of success and decrease recidivism rates. In turn, the County could see a decrease in criminal activity, which would result in a safer region overall. This is consistent with Goal 1, Policy 4 of the County's General Plan Safety Element, which states, "To encourage development of programs and practices which incorporate crime prevention methods, techniques, and experience into the planning process."[44] The proposed improvements to the Campus would promote proactive crime prevention methods as opposed to traditional institutional design features and therefore would be consistent with this provision of the County's General Plan.

City of Orange General Plan. In addition to the County's General Plan, the proposed project would also be subject to the City of Orange General Plan. Because the project site is located within the incorporated City of Orange, it would be subject to the City's General Plan Land Use Element. As previously stated, the project site is designated for Public Facilities and Institutions (PFI) land uses in the City of Orange General Plan Land Use Element,[45] which allows for public, quasi-public, and institutional land uses, including schools, colleges and universities, City and County facilities, hospitals, and major utility easements and properties. This land use designation includes service organizations and housing related to an institutional use, such as dormitories, employee housing, assisted living, convalescent homes, and skilled nursing facilities.

Under existing conditions, the Campus is a County-owned facility that provides various support systems and housing for juvenile law violators, and is therefore consistent with the City's General Plan Land Use designation described above. The proposed project would redevelop the Campus with upgraded facilities and programs but would not change the overarching land use type or purpose of the facility. In addition to various youth housing structures, the proposed project would provide additional services such as education, vocational training, and behavioral/medical health facilities that would support the development of youth residents. As such, land uses within the project site would remain consistent under the proposed project with the applicable City of Orange General Plan land use designation.

City of Orange Zoning Code. According to the City of Orange Zoning Code,[46] the project site is currently zoned as Public Institution (P-I), which is intended to accommodate a wide range of public and quasi-public uses and may accommodate housing and privately operated medical and office activity. As previously stated, the proposed project would redevelop an existing juvenile detention and rehabilitation facility with facilities intended to ensure the successful rehabilitation and societal integration of juvenile law violators. Proposed on-site housing, including independent living units and long-term housing units, would be allowable under the site's current zoning. As such, under the proposed project, land uses within the project site would remain consistent with the applicable City of Orange Zoning Code designation.

The proposed project would be limited to the Campus and does not propose changes to land uses within any surrounding parcels. As such, the proposed project would not create any new conflicts with applicable

[44] County of Orange. 2012. Orange County General Plan Safety Element. December. Website: https://ocds.ocpublicworks.com/sites/ocpwocds/files/import/data/files/59953.pdf (accessed October 21, 2024).

[45] City of Orange. 2015. City of Orange General Plan Land Use Element. December. Website: https://www.cityoforange.org/home/show publisheddocument/208/637698172555630000 (accessed October 21, 2024).

[46] City of Orange. 2020. City of Orange Zoning Map. September. Website: https://www.cityoforange.org/home/show publisheddocument/ 40/637707607413300000 (accessed October 21, 2024).

land use plan, policy, or regulations with respect to land uses outside of the Campus. Implementation of the proposed project would not conflict with an applicable land use plan, policy, or regulation adopted for the purpose of avoiding or mitigating an environmental effect. As such, impacts would be less than significant, and no mitigation is required.

4.16 *Mineral Resources*

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

Question 4.16 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?

Response to Question 4.16 a):

No Impact. Minerals are defined as naturally occurring elements or compounds, or groups of elements and compounds, formed from inorganic processes and organic substances including, but not limited to, coal, peat, and oil-bearing rock, but excluding geothermal resources, natural gas, and petroleum by the United States Geological Survey.[47]

The California Department of Conservation (DOC), California Geologic Survey (CGS), and the California State Mining and Geology Board are required by the Surface Mining and Reclamation Act of 1974 (SMARA) to categorize lands into four Aggregate and Mineral Resource Zones (MRZs). These MRZs classify lands that contain significant regional or Statewide mineral deposits. Jurisdictions are mandated by the State to incorporate MRZs into their General Plans. According to the City of Orange General Plan Natural Resources Element, many significant mineral resources are present within the City of Orange. These mineral resource deposits are limited to sand and gravel resources. Sand and gravel are aggregate resources, a primary component in cement concrete. These resources are important to the region's economy as they are widely used in the construction industry.[48]

The proposed project is located in a western portion of the City of Orange, adjacent to the Santa Ana River. The nearest designated mineral resource area is approximately 11 miles southeast of the proposed project site, a designated mineral resource area located in the northwestern portion of the City is approximately 4 miles northeast of the proposed project site, and a potential mineral resource area near Irvine Lake is approximately 9.4 miles east of the proposed project site. Additionally, City Resource Area

[47] United States Geological Survey (USGS). What is the difference between a rock and a mineral? Website: https://www.usgs gov/faqs/what-difference-between-rock-and-mineral (accessed October 2024).

[48] City of Orange General Plan. Natural Resources Element. Mineral Resources. Website: https://www.cityoforange.org/home/showpublisheddocument/210/637698172559270000 (accessed October 2024).

Land Use designations are located approximately 4.8 miles northwest, 1 mile south, and 10 miles east of the proposed project site, respectively.

As such, the proposed project site is not located within or adjacent to any designated mineral resource areas of value to the region and state. Therefore, the proposed project would not result in the loss of availability of a known mineral that would be of value to the region and the residents of the state. No impact would occur, and no mitigation is necessary.

Question 4.16 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?

Response to Question 4.16 b):

No Impact. Historically, the City of Orange has been characterized by numerous state-designated MRZs and contributed to the gravel industry, but most of the City's mineral resources have since been exhausted, and the MRZs declassified because of completed mining activity or urban development.[49] As described above, there are several mineral resource areas located within the City of Orange. However, none of these resource areas are located within or adjacent to the proposed project site. The proposed project would not result in the loss of availability of a locally important mineral resource recovery site delineated on a local general plan, specific plan or other land use plan because it is not located within or adjacent to city or state designated resource areas and is already developed with a similar facility to the proposed project. No impact would occur, and no mitigation would be required.

[49] City of Orange General Plan. Natural Resources Element. Mineral Resources. Website: https://www.cityoforange.org/home/showpublisheddocument/210/637698172559270000 (accessed October 2024).

4.17 *Noise*

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

The following analysis is based upon information presented in the Noise Survey Sheets prepared for the proposed project by LSA in November 2024. This document is included within this IS/MND as Appendix J.

Technical Background

The following provides an overview of the characteristics of sound, fundamentals of vibration, and noise and vibration regulatory settings that apply to the proposed project.

Characteristics of Sound. Sound is increasing in the environment and can affect quality of life. Noise is usually defined as unwanted sound. Noise consists of any sound that may produce physiological or psychological damage and/or interfere with communication, work, rest, recreation, and sleep.

To the human ear, sound has two significant characteristics: pitch and loudness. Pitch is generally an annoyance, while loudness can affect the ability to hear. Pitch is the number of complete vibrations (or cycles per second) of a wave, resulting in the tone's range from high to low. Loudness is the strength of a sound and describes a noisy or quiet environment; it is measured by the amplitude of the sound wave. Loudness is determined by the intensity of the sound waves combined with the reception characteristics of the human ear. Sound intensity refers to how hard the sound wave strikes an object, which in turn produces the sound's effect. This characteristic of sound can be precisely measured with instruments.

Measurement of Sound. Sound intensity is measured through the A-weighted scale to correct for the relative frequency response of the human ear. That is, an A-weighted noise level de-emphasizes low and very high frequencies of sound similar to the human ear's de-emphasis of these frequencies. Unlike units of measurement that use a linear scale (e.g., inches or pounds), decibels use a scale based on powers of 10.

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

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

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

Other noise rating scales of importance, when assessing the annoyance factor, include the maximum instantaneous noise level (L_{max}), which is the highest exponential time-averaged sound level that occurs during a stated time period. The noise environments discussed in this analysis are specified in terms of L_{max} for short-term noise impacts. L_{max} reflects peak operating conditions and addresses the annoying aspects of intermittent noise.

Another noise scale often used together with L_{max} in noise ordinances for enforcement purposes is noise standards in terms of percentile noise levels. For example, the L_{10} noise level represents the noise level exceeded 10 percent of the time during a stated period. The L_{50} noise level represents the median noise level. Half of the time the noise level exceeds this level, and half of the time it is less than this level. The L_{90} noise level represents the noise level exceeded 90 percent of the time and is considered the background noise level during a monitoring period. For a relatively constant noise source, L_{eq} and L_{50} are approximately the same.

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

Physiological Effects of Noise. Physical damage to human hearing begins at prolonged exposure to noise levels higher than 85 dBA. Exposure to high noise levels affects the entire system, with prolonged noise exposure in excess of 75 dBA increasing body tensions and thereby affecting blood pressure and functions of the heart and the nervous system. In comparison, extended periods of noise exposure above 90 dBA would result in permanent cell damage. When the noise level reaches 120 dBA, a tickling sensation occurs in the human ear, even with short-term exposure. This level of noise is called the threshold of feeling. As the sound reaches 140 dBA, the tickling sensation is replaced by the feeling of pain in the ear. This is called the threshold of pain. A sound level of 160 to 165 dBA will potentially result in dizziness or loss of equilibrium. The ambient or background noise problem is widespread and generally more concentrated in urban areas than in outlying, less-developed areas. Table 4.14.A lists definitions of acoustical terms, and Table 4.14.B shows common sound levels and their noise sources.

Fundamentals of Vibration. Vibration refers to ground-borne noise and perceptible motion. Ground-borne vibration is almost exclusively a concern inside buildings and is rarely perceived as a problem outdoors where the motion may be discernible. However, without the effects associated with the shaking of a building, there is less adverse reaction. Vibration energy propagates from a source through intervening soil and rock layers to the foundations of nearby buildings. The vibration then propagates from the foundation throughout the remainder of the structure. Building vibration may be perceived by occupants as motion of building surfaces, the rattling of items on shelves or hanging on walls, or a low-frequency rumbling noise. The rumbling noise is caused by the vibrating walls, floors, and ceilings radiating sound waves. Building damage is not a factor for normal operation and construction activities with the occasional exception of blasting and pile driving during construction.

Typical sources of ground-borne vibration are construction activities (e.g., blasting, pile driving, and operating heavy-duty earthmoving equipment), steel-wheeled trains, and occasional traffic on rough roads. Impacts with ground-borne vibration and noise from these sources are usually localized to areas within approximately 100 ft of the vibration source, although there are examples of ground-borne vibration causing interference out to distances greater than 200 ft (Federal Transit Administration [FTA] *Transit Noise and Vibration Impact Assessment Manual* (FTA Manual).[50] When roadways are smooth, vibration from traffic, even heavy trucks, is rarely perceptible. For most projects, it is assumed that the roadway surface will be smooth enough that ground-borne vibration from street traffic will not exceed the impact criteria; however, construction activities have the potential to result in ground-borne vibration that could be perceptible and annoying. Ground-borne noise is not likely to be a problem because noise arriving via the normal airborne path usually will be greater than ground-borne noise.

[50] Federal Transit Administration (FTA). 2018. *Transit Noise and Vibration Impact Assessment Manual.* FTA Report No. 0123. September. Website: https://www.transit.dot.gov/sites/fta.dot.gov/files/docs/research-innovation/118131/transit-noise-and-vibration-impact-assessment-manual-fta-report-no-0123_0.pdf (accessed November 2024).

Table 4.17.A: Definitions of Acoustical Terms

Term	Definition
Decibel, dB	A unit of noise level that denotes the ratio between two quantities that are proportional to power; the number of decibels is 10 times the logarithm (to the base 10) of this ratio.
Frequency, Hz	Of a function periodic in time, the number of times that the quantity repeats itself in 1 second (i.e., number of cycles per second).
A-Weighted Sound Level, dBA	The sound level obtained by use of A-weighting. The A-weighting filter de-emphasizes the very low- and very high-frequency components of the sound in a manner similar to the frequency response of the human ear and correlates well with subjective reactions to noise. (All sound levels in this report are A-weighted unless reported otherwise.)
L_2, L_8, L_{50}, L_{90}	The fast A-weighted noise levels that are equaled or exceeded by a fluctuating sound level 2 percent, 8 percent, 50 percent, and 90 percent of a stated time period.
Equivalent Continuous Noise Level, L_{eq}	The level of a steady sound that, in a stated time period and at a stated location, has the same A-weighted sound energy as the time-varying sound.
Community Noise Equivalent Level, CNEL	The 24-hour A-weighted average sound level from midnight to midnight, obtained after the addition of 5 dB to sound levels occurring in the evening from 7:00 p.m. to 10:00 p.m. and after the addition of 10 dB to sound levels occurring in the night between 10:00 p.m. and 7:00 a.m.
Day/Night Noise Level, L_{dn}	The 24-hour A-weighted average sound level from midnight to midnight, obtained after the addition of 10 dB to sound levels occurring in the night between 10:00 p.m. and 7:00 a.m.
L_{max}, L_{min}	The maximum and minimum A-weighted sound levels measured on a sound level meter during a designated time interval using fast-time averaging.
Ambient Noise Level	The all-encompassing noise associated with a given environment at a specified time; usually a composite of sound from many sources from many directions, near and far; no particular sound is dominant.
Intrusive	The noise that intrudes over and above the existing ambient noise at a given location. The relative intrusiveness of a sound depends on its amplitude, duration, frequency, time of occurrence, and tonal or informational content, as well as the prevailing ambient noise level.

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

Table 4.17.B: Common Sound Levels and Their Noise Sources

Noise Source	A-Weighted Sound Level in Decibels	Noise Environments	Subjective Evaluations
Near Jet Engine	140	Deafening	128 times as loud
Civil Defense Siren	130	Threshold of Pain	64 times as loud
Hard Rock Band	120	Threshold of Feeling	32 times as loud
Accelerating Motorcycle a Few Feet Away	110	Very Loud	16 times as loud
Pile Driver; Noisy Urban Street/Heavy City Traffic	100	Very Loud	8 times as loud
Ambulance Siren; Food Blender	95	Very Loud	—
Garbage Disposal	90	Very Loud	4 times as loud
Freight Cars; Living Room Music	85	Loud	—
Pneumatic Drill; Vacuum Cleaner	80	Loud	2 times as loud
Busy Restaurant	75	Moderately Loud	—
Near-Freeway Auto Traffic	70	Moderately Loud	Reference Level
Average Office	60	Quiet	½ as loud
Suburban Street	55	Quiet	—
Light Traffic; Soft Radio Music in Apartment	50	Quiet	¼ as loud
Large Transformer	45	Quiet	—
Average Residence without Stereo Playing	40	Faint	⅛ as loud
Soft Whisper	30	Faint	—
Rustling Leaves	20	Very Faint	—
Human Breathing	10	Very Faint	Threshold of Hearing
—	0	Very Faint	—

Source: Compiled by LSA (2004).

Ground-borne vibration has the potential to disturb people as well as damage buildings. As stated in the FTA Manual, although it is very rare for ground-borne vibration to cause even cosmetic building damage, there is potential for construction processes such as blasting and pile driving to cause vibration of sufficient amplitudes to damage nearby buildings. Ground-borne vibration is usually measured in terms of vibration velocity, either the root-mean-square (RMS) velocity or peak particle velocity (PPV). RMS is best for characterizing human response to building vibration, and PPV is used to characterize the potential for damage. Decibel notation acts to compress the range of numbers required to describe vibration. Vibration velocity level in decibels is defined as:

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

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

Regulatory Setting

Federal Guidelines

Federal Transit Administration. The construction noise criteria included in the Federal Transit Administration (FTA) *Transit Noise and Vibration Impact Assessment Manual* (2018) was used to evaluated potential construction noise impacts. In addition, any noise sources associated with construction would be prohibited from taking place between 8:00 p.m. to 7:00 a.m. on weekdays and Saturdays, and all day on Sundays, in compliance with the County Noise Ordinance (Orange County Municipal Code Section 4-6-7). Table 4.17.C shows the FTA's Detailed Assessment Daytime Construction Noise Criteria based on the composite noise levels for each construction phase.

Table 4.17.C: Detailed Assessment Daytime Construction Noise Criteria

Land Use	Daytime 1-hour L_{eq} (dBA)
Residential	80
Commercial	85
Industrial	90

Source: *Transit Noise and Vibration Impact Assessment Manual* (FTA 2018).
dBA = A-weighted decibels
L_{eq} = equivalent continuous sound level

Vibration standards included in the FTA *Transit Noise and Vibration Impact Assessment Manual* (2018) were used to evaluate vibration impacts because the County does not have vibration standards. Table 4.17.D provides the criteria for assessing the potential for interference or annoyance from vibration levels in a building, while Table 4.17.E lists the potential vibration building damage criteria associated with construction activities.

Table 4.17.D: Interpretation of Vibration Criteria for Detailed Analysis

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

Source: *Transit Noise and Vibration Impact Assessment Manual* (FTA 2018).
[1] As measured in ⅓-octave bands of frequency over the frequency range 8 to 80 Hertz.
FTA = Federal Transit Administration
L_V = velocity in decibels
VdB = vibration velocity decibels

Table 4.17.E: Construction Vibration Damage Criteria

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

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

Local Regulations

City of Orange General Plan Noise Element. As previously stated, while the project site is owned and operated by the County, it is located within the City of Orange. The City of Orange General Plan Noise Element[51] has established noise standards from transportation sources for various land uses and has goals and policies to meet the City's noise-related goals. The City's noise standards from transportation and stationary sources are shown in Tables 4.17.F and Table 4.17.G. As shown in Table 4.17.F, the City has an exterior noise standard of 65 dBA CNEL for single- and multi-family residential uses. Applicable goals and policies for the project are listed below:

- **Goal 7.0:** Minimize construction, maintenance vehicle, and nuisance noise in residential areas and near noise-sensitive land uses.
    - **Policy 7.1:** Schedule City maintenance and construction projects so that they generate noise during less sensitive hours.
    - **Policy 7.2:** Require developers and contractors to employ noise minimizing techniques during construction and maintenance operations.

[51] City of Orange. 2015. Orange General Plan Noise Element. December. Website: https://www.cityoforange.org/home/showpublisheddocument/212/637698172563500000 (accessed November 2024).

Table 4.17.F: Maximum Allowable Noise Exposure-Transportation Sources

Land Use		Noise Level (dBA CNEL)	
Designations	**Uses**	**Interior**	**Exterior**
Estate Low Density Residential Low Density Residential Low Medium Density Residential	Single-family, duplex, and multiple-family	45	65
	Mobile home park	N/A	65
Medium Density Residential Neighborhood Mixed-use Neighborhood Office Professional Old Towne Mixed-use General Commercial Yorba Commercial Overlay Urban Mixed-use Urban Office Professional	Single-family	45	65
	Mobile home park	N/A	65
	Multiple-family, mixed-use	45	65
	Transient lodging—motels, hotels	45	65
	Sports arenas, outdoor spectator sports	N/A	N/A
	Auditoriums, concert halls, amphitheaters	45	N/A
	Office buildings, business, commercial and professional	50	N/A
Light Industrial Industrial	Manufacturing, utilities, agriculture	N/A	N/A
Public Facilities and Institutions	Schools, nursing homes, day care facilities, hospitals, convalescent facilities, dormitories	45	65
	Government Facilities—offices, fire stations, community buildings	45	N/A
	Places of Worship, Churches	45	N/A
	Libraries	45	N/A
	Utilities	N/A	N/A
	Cemeteries	N/A	N/A
Recreation Commercial Open Space Open Space-Park Open Space-Ridgeline Resource Area	Playgrounds, neighborhood parks	N/A	70
	Golf courses, riding stables, water recreation, cemeteries	N/A	N/A

Source: City of Orange General Plan Noise Element (2015).

[1] Interior habitable environment excludes bathrooms, closets and corridors.

[2] Exterior noise level standard to be applied at outdoor activity areas; such as private yards, private patio or balcony of a multi-family residence. Where the location of an outdoor activity area is unknown or not applicable, the noise standard shall be applied inside the property line of the receiving land use.

[3] Interior noise standards shall be satisfied with windows in the closed position. Mechanical ventilation shall be provided per Uniform Building Code (UBC) requirements.

[4] Within the Urban Mixed-Use, Neighborhood Mixed-Use, Old Towne Mixed-use, and Medium Density Residential land use designations, exterior space standards apply only to common outdoor recreational areas.

[5] Within Urban Mixed-Use and Medium Density Residential land use designations, exterior noise levels on private patios or balconies located within 250 feet of freeways (I-5, SR-57, SR-55, SR-22, or SR-241) and Smart Streets and Principal Arterials identified in the Circulation & Mobility Element that exceed 70 dB should provide additional common open space.

N/A = Not Applicable to specified land use category or designation

Table 4.17.G: Maximum Allowable Noise Exposure-Stationary Sources

Land Use	Time Period	Noise Level (dBA)	
		L_{eq}	L_{max}
Residential	7:00 a.m. to 10:00 p.m.	55	70
	10:00 p.m. to 7:00 a.m.	50	65

Source: City of Orange Municipal Code (2024).

Notes:

[1] These standards apply to new or existing noise sensitive land uses affected by new or existing non-transportation noise sources, as determined at the outdoor activity area of the receiving land use. However, these noise level standards do not apply to residential units established in conjunction with industrial or commercial uses (e.g., caretaker dwellings).

[2] Each of the noise levels specified above should be lowered by 5 dB for simple tone noises, noises consisting primarily of speech or music, or for recurring impulsive noises. Such noises are generally considered by residents to be particularly annoying and are a primary source of noise complaints. These noise level standards do not apply to residential units established in conjunction with industrial or commercial uses (e.g., caretaker dwellings).

[3] No standards have been included for interior noise levels. Standard construction practices that comply with the exterior noise levels identified in this table generally result in acceptable interior noise levels.

[4] The City may impose noise level standards which are more or less restrictive than those specified above based upon determination of existing low or high ambient noise levels. If the existing ambient noise level exceeds the standards, then the noise level standards shall be increased at 3 dB increments to encompass the ambient environment. Noise level standards incorporating adjustments for existing ambient noise levels shall not exceed a maximum of 70 dB L_{eq}.

- **Policy 7.3:** Limit the hours of construction and maintenance operations located adjacent to noise-sensitive land uses.
- **Policy 7.4:** Encourage limitations on the hours of operations and deliveries for commercial, mixed-use, and industrial uses abutting residential zones.

In addition to the maximum allowable noise level standards outlined in Tables 4.17.F and 4.17.G, the City has established the following increases in ambient noise levels for the analysis of noise impacts and determining appropriate mitigation under CEQA:

- Where the existing ambient noise level is less than 65 dBA, a project-related permanent increase in ambient noise levels of 5 dBA CNEL or greater.
- Where the existing ambient noise level is greater than 65 dBA, a project-related permanent increase in ambient noise levels of 3 dBA CNEL or greater.

City of Orange Municipal Code. Section 8.24.040 of the City's Municipal Code established exterior noise limits (shown in Table 4.17.G) that apply to residential property within the City.

Section 8.24.050(E) of the City's Municipal Code exempts noise sources associated with construction, repair, remodeling, or grading of any real property between the hours of 7:00 a.m. and 8:00 p.m., Monday through Saturday, or between the hours of 9:00 a.m. to 8:00 p.m. on Sundays and federal holidays.

Existing Setting

Surrounding Land Uses. Land uses surrounding the project site include the UCI Medical Center research hospital to the north, Orangewood Children's Home to the south, and the Lamoreaux Justice Center to the west, which are approximately 80 ft, 50 ft, and 5 ft, respectively from the project site boundary.

Existing Noise Environment. The primary existing noise sources in the area surrounding the project site are transportation facilities. Traffic on I-5 and other nearby roadways is a steady source of ambient noise

in the vicinity of the project site. UCI Medical Center operates a helipad, north of the hospital at the corner of Chapman Avenue and The City Drive, approximately 0.25 mile northwest of the project site.

Ambient Noise Level Measurements. Three long-term (24-hour) noise level measurements were conducted from October 15 to October 17, 2024, using Larson Davis Spark 706RC dosimeters to document the existing noise environment within the vicinity of the project site. Table 4.17.H summarizes the results of the long-term noise level measurements along with a description of the measurement locations and noise sources that occurred during the measurements. As shown in Table 4.17.H, daytime noise levels ranged from 56.5 to 66.8 dBA L_{eq} and nighttime noise levels ranged from 53.5 to 66.8 dBA L_{eq}. Also, the calculated CNEL levels at LT-1, LT 2, and LT-3 were 68.2, 67.5, and 66.6 dBA, respectively. The long-term noise level measurement survey sheets along with the hourly L_{eq} results are provided in Appendix J to this IS/MND. Figure 4.17-1 shows the long-term monitoring locations.

Table 4.17.H: Long-Term Ambient Noise Monitoring Results

Monitoring Location No.	Location Description	Noise Levels (dBA)			Noise Sources
		Daytime[1]	Nighttime[2]	CNEL	
		L_{eq}	L_{eq}		
LT-1	331 The City Drive S, on a light pole on the northern property fence. Approximately 450 ft from the I-5 centerline.	57.7-64.1 (62.0)[3]	59.3-66.8 (60.7)[4]	68.2	Traffic on I-5 and parking activity.
LT-2	333 The City Drive S, on the southeast corner of the fence west of the open yard. Approximately 640 ft from the I-5 centerline.	59.3-66.8 (61.9)[3]	56.2-64.7 (59.9)[4]	67.5	Traffic on I-5.
LT-3	401 The City Drive S, on a utility pole on the south side of Justice Center Way. Approximately 980 ft from the I-5 centerline.	56.5-63.7 (61.2)[3]	53.5-64.7 (58.4)[4]	66.6	Traffic on I-5.

Source: Compiled by LSA (2024).
[1] Daytime = Hours between 7:00 a.m. and 10:00 p.m.
[2] Nighttime = Hours between 10:00 p.m. and 7:00 a.m.
[3] Average daytime noise level.
[4] Average nighttime noise level.
CNEL = Community Noise Equivalent Level
dBA = A-weighted decibel(s)
L_{eq} = equivalent continuous sound level

Question 4.17 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?

Response to Question 4.17 a):

Less than Significant with Mitigation Incorporated.

Short-Term Construction Noise Impacts. Two types of short-term noise impacts would occur during construction of the proposed project. The first type would be from construction crew commutes and the transport of construction equipment and materials to the project site and would incrementally raise noise levels on roadways leading to the site. The pieces of construction equipment for construction activities would move on site, would remain for the duration of each construction phase, and would not add to the daily traffic volume in the vicinity of the project site. Although there would be a relatively high single-event noise exposure potential causing intermittent noise nuisance (passing trucks at 50 ft would generate up to a maximum of 84 dBA), the effect on longer-term (daily) ambient noise levels would be small

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LSA

LEGEND

Project Site Boundary

LT-1 Long-term Noise Monitoring Location

N

0 140 280

FEET

SOURCE: Google Earth 2024

I:\O\OCY2001.48\G\Noise_Locs.ai (11/11/2024)

FIGURE 4.17-1

Orange County Youth Transition Center
Juvenile Hall Replacement Project
Noise Monitoring Locations

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because the hourly/daily construction-related vehicle trips would be small compared to the existing daily traffic volumes on I-5, SR-22, and The City Drive. When the grading and building construction phases occur simultaneously, the proposed project would generate the most trips out of all of the construction phases, at 144 trips per day based on the California Emissions Estimator Model (CalEEMod) (Version 2022.1) results contained in Appendix A, with the conservative assumption that construction of Phases 1 and 2 would occur simultaneously. Although the specific design of Phase 3 has not yet been determined, construction-related trips associated with Phase 3 were assumed to be lower than the combined construction associated with Phases 1 and 2 because only tenant improvements are proposed under this construction phase (no demolition or exterior construction are proposed). Roadways that would be used to access the project site would include The City Drive, SR-22, and I-5. Based on the 2024 Master Plan of Arterial Highways (MPAH) (Orange County Transportation Authority [OCTA] 2024), The City Drive, SR-22, and I-5 have an estimated existing average daily traffic (ADT) volume of 16,000, 196,000, and 284,000, respectively, near the project site. Based on the information above, construction-related traffic would increase noise levels by up to 0.04 dBA. A noise level increase of less than 3 dBA would not be perceptible to the human ear in an outdoor environment. Therefore, short-term construction-related noise impacts associated with worker commute and equipment transport to the project site would be less than significant. No mitigation measures are required.

The second type of short-term noise impact is related to noise generated from construction activities. Construction is performed in discrete steps, each of which has its own mix of equipment and, consequently, its own noise characteristics. The proposed project anticipates demolition, site preparation, grading, building construction, paving, and architectural coating phases of construction. These various sequential phases change the character of the noise generated on a project site. Therefore, the noise levels vary as construction progresses. Despite the variety in the type and size of construction equipment, similarities in the dominant noise sources and patterns of operation allow construction-related noise ranges to be categorized by work phase. Table 4.17.I lists the L_{max} recommended for noise impact assessments for typical construction equipment included in the FHWA Highway Construction Noise Handbook (2006), based on a distance of 50 ft between the equipment and a noise receptor.

Table 4.17.J lists the anticipated construction equipment for each construction phase based on the CalEEMod (Version 2022.1) results contained in Appendix A with the conservative assumption that construction of Phases 1 and 2 would occur simultaneously. As discussed above, no outdoor construction activities would occur under Phase 3. Table 4.17.J shows the combined noise level at 50 ft from all of the equipment in each phase and the L_{eq} noise level for each equipment at 50 ft based on the quantity, reference L_{max} noise level at 50 ft, and the acoustical usage factor. As shown in Table 4.17.J, construction noise levels would reach up to 89.2 dBA L_{eq} at a distance of 50 ft.

The Orangewood Children's Home to the south approximately 210 ft and UCI Medical Center to the north approximately 255 ft are the closest off-site noise-sensitive uses from the center of the project site for Phases 1 and 2 and would be exposed to noise levels that would reach up to 76.7 and 75.0 dBA L_{eq}, respectively. Although noise generated by project construction activities would be higher than the ambient noise levels and may result in a temporary increase in the ambient noise levels, construction noise would stop once project construction is completed. Also, construction-related noise levels would be below the FTA noise level standards of 80 dBA L_{eq} for residential uses. Construction activities shall be limited to between the hours of 7:00 a.m. and 8:00 p.m., Monday through Saturday and all day on Sunday pursuant to the County Municipal Code. The implementation of construction hour limits, as summarized in Regulatory Compliance Measure (RCM) N-1, would minimize disturbance to nearby land uses by limiting construction to daytime hours.

Table 4.17.I: Typical Construction Equipment Noise Levels

Equipment Description	Acoustical Usage Factor[1] (%)	Maximum Noise Level (L_{max}) at 50 ft[2]
Backhoe	40	80
Compactor (ground)	20	80
Compressor	40	80
Crane	16	85
Dozer	40	85
Dump Truck	40	84
Excavator	40	85
Flatbed Truck	40	84
Man Lift (Forklift)	20	85
Front-End Loader	40	80
Generator	50	82
Generator (<25KVA, VMS signs)	50	70
Grader	40	85
Jackhammer	20	85
Pavement Scarifier	20	85
Paver	50	85
Pickup Truck	40	55
Pneumatic Tools	50	85
Pump	50	77
Rock Drill	20	85
Roller	20	85
Scraper	40	85
Tractor	40	84
Welder/Torch	40	73

Source: *FHWA Highway Construction Noise Handbook,* Table 9.1 (FHWA 2006).

Note: The noise levels reported in this table are rounded to the nearest whole number.

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

[2] Maximum noise levels were developed based on Specification 721.560 from the CA/T program to be consistent with the City of Boston, Massachusetts, Noise Code for the "Big Dig" project.

CA/T = Central Artery/Tunnel

FHWA = Federal Highway Administration

ft = foot/feet

L_{max} = maximum instantaneous noise level

Table 4.17.J: Summary of Construction Phase, Equipment, and Noise Levels

Construction Phase	Construction Equipment	Quantity	Reference Noise Level at 50 ft (dBA L_{max})	Acoustical Usage Factor1 (%)	Noise Level at 50 ft (dBA L_{eq})	Combined Noise Level at 50 ft (dBA L_{eq})
Demolition	Grader	1	85	40	81.0	88.8
	Excavator	3	85	40	85.8	
	Dozer	2	85	40	84.0	
Site Preparation	Dozer	3	85	40	85.8	87.3
	Front End Loader	4	80	40	82.0	
Grading	Excavator	2	85	40	84.0	89.2
	Grader	1	85	40	81.0	
	Dozer	1	85	40	81.0	
	Scraper	2	85	40	84.0	
	Front End Loader	2	80	40	79.0	
Building Construction	Crane	1	85	16	77.0	86.5
	Man Lift	3	85	20	82.8	
	Generator	1	82	50	79.0	
	Front End Loader	3	80	40	80.8	
	Welder / Torch	1	73	40	69.0	
Paving	Paver	2	85	50	85.0	87.6
	Pavement Scarafier	2	85	20	81.0	
	Roller	2	85	20	81.0	
Architectural Coating	Compressor (air)	1	80	40	76.0	76.0

Source: Compiled by LSA (2024).

[1] The acoustical usage factor is the percentage of time during a construction noise operation that a piece of construction equipment operates at full power.

dBA = A-weighted decibels
ft = foot/feet
L_{eq} = equivalent continuous sound level
L_{max} = maximum instantaneous noise level

Therefore, noise generated from project construction activities would be less than significant. No mitigation measures are required.

Long-Term Operational Noise Impacts. The project is estimated to generate a net new ADT volume of 130 based on the YTC Project Schedule and Trips provided in Appendix K. The existing ADT volumes of 16,000 along The City Drive, 196,000 along SR-22, and 284,000 along I-5 in the area surrounding the project site were obtained from the 2024 Master Plan of Arterial Highways (MPAH) (OCTA 2024). It takes a doubling of traffic to increase traffic noise levels by 3 dBA. Based on the information above, project-related traffic on The City Drive, SR-22, and I-5 would increase traffic noise levels by up to 0.03 dBA. A noise level increase of less than 3 dBA would not be perceptible to the human ear in an outdoor environment. Therefore, traffic noise impacts from project-related traffic on off-site sensitive receptors would be less than significant. No mitigation measures are required.

Long-Term Stationary Noise Impacts. The proposed project could add additional heating, ventilation, and air conditioning (HVAC) equipment along with reusing or replacing existing HVAC equipment. Although the details and specifications of the HVAC equipment is yet to be determined, HVAC equipment would be acoustically isolated from interior spaces and strategically placed to limit the visual impact to surrounding uses. Each rooftop HVAC unit is anticipated to generate a noise level of 62.4 dBA L_{eq} at a distance of 50 ft based on a Trane 12.5 to 25 ton packaged rooftop air conditioner. Table 4.17.H shows that the average nighttime L_{eq} noise level at LT-1 and LT-3 north and south of the project site is 60.7 dBA and 58.4 dBA, respectively. Since the average nighttime ambient noise levels are higher than the City's nighttime noise standard of 55 dBA L_{eq}, a project-related permanent increase in ambient noise levels of 3 dBA or greater

would be considered significant. Limiting HVAC noise levels to less than 60.7 and 58.4 dBA L_{eq} at LT-1 and LT-3, respectively, would avoid increasing ambient noise levels by 3 dBA. Mitigation Measure (MM) N-1 requires a qualified acoustical consultant to prepare a memorandum to demonstrate that noise from on-site HVAC equipment does not exceed existing ambient noise levels by 3 dBA at the closest off-site property to the north and south once the details and specifications of the on-site HVAC equipment are determined. Therefore, noise generated from HVAC equipment would be less than significant with the implementation of MM N-1.

Long-Term On-Site Noise Impacts. The proposed project would be exposed to traffic noise primarily from I-5, which is consistent with the observed noise sources at LT-1, LT-2, and LT-3 shown in Table 4.17.H. Measured noise levels at LT-1, LT-2, and LT-3 were 68.2, 67.5, and 66.5 dBA CNEL, respectively. The existing ADT volume on I-5 in the vicinity of the project site is 284,000 based on the 2024 Master Plan of Arterial Highways (MPAH) (OCTA 2024). The future Year 2045 ADT volume would be 430,450 assuming a conservative 2 percent traffic volume increase per year from the existing year 2024. The following equation where $V_{existing}$ is the existing volume, V_{future} is the future volume, $CNEL_{existing}$ is the existing noise level, and $CNEL_{future}$ is the future noise level, was used to calculate future noise levels:

$$CNEL_{future} = CNEL_{existing} + 10 \log_{10} [V_{future}/V_{existing}]$$

Using the equation above, the future Year 2045 traffic volume would result in a traffic noise increase of 1.8 dBA from the existing Year 2024 traffic volume. Future noise levels at LT-1, LT-2, and LT-3 would be 70.0, 69.3, and 68.3 dBA CNEL, respectively. An exterior-to-interior noise reduction of up to 25 dBA would be required to meet the City's interior noise standard of 45 dBA CNEL. Based on the ratings provided in Sound Control for Commercial and Residential Buildings (North American Innovation Manufacturers Association [NAIMA] 1997), standard building construction used in Southern California consisting of 7/8-inch stucco, 1-inch woven mesh and No. 15 felt paper, 2-inch x 4-inch studs, ½-inch gypsum board, and standard insulation batt provide a Sound Transmission Class (STC) rating of 46. It is expected that the construction of the proposed facility would provide a much higher reduction in sound with the façade enhancements typically associated with public facility use construction. In order to confirm that the necessary reduction is achieved and to comply with the City's interior noise standard of 45 dBA CNEL, a Final Acoustical Report shall be prepared based on final architectural plans and window specifications to document the expected interior noise level as required by RCM N-2. Also, mechanical ventilation, such as air conditioning, would be required to ensure that windows can remain closed for a prolonged period of time. With the implementation of RCM N-2 and N-3, the proposed project would comply with the City's interior noise standard of 45 dBA CNEL.

Regulatory Compliance Measures:

RCM N-1 **Construction Noise and Vibration.** The construction contractor shall limit construction activities to between the hours of 7:00 a.m. and 8:00 p.m., Monday through Saturday and between the hours of 9:00 a.m. and 8:00 p.m. on Sunday or a federal holiday. Construction is prohibited outside these hours.

RCM N-2 **Final Acoustical Report.** Prior to issuance of any certificates of building permits, the project Applicant shall submit a Final Acoustical Report, prepared by a qualified acoustical consultant, to be reviewed and approved by the City Building Official, or their respective designee. The City Building Official, or their respective designee, shall verify that the Final Acoustical Report demonstrates that all sensitive rooms with exterior façades comply with the City's interior noise standard.

RCM N-3 **Interior Noise.** Mechanical ventilation (e.g., an air-conditioning system) shall be provided to all noise-sensitive rooms to ensure that windows can remain closed for a prolonged period of time.

Mitigation Measure:

MM N-1 **Acoustical Memorandum.** Prior to the issuance of the final occupancy permit, a qualified acoustical consultant shall prepare a memorandum to demonstrate that noise from on-site HVAC equipment does not exceed existing ambient noise levels by 3 A-weighted decibels (dBA) at the closest off-site property to the north and south once the details and specifications of the on-site HVAC equipment are determined.

Question 4.17 b): Generation of excessive groundborne vibration or groundborne noise levels?

Response to Question 4.17 b):

Less Than Significant with Mitigation Incorporated.

Short-Term Construction Impacts. This construction vibration impact analysis discusses the level of human annoyance using vibration levels in RMS (VdB) and assesses the potential for building damage using vibration levels in PPV (in/sec). Vibration levels calculated in RMS velocity are best for characterizing human response to building vibration, whereas vibration levels in PPV are best for characterizing damage potential.

Table 4.17.K shows the reference vibration levels at a distance of 25 ft for each type of standard construction equipment from the *Transit Noise and Vibration Impact Assessment Manual* (FTA 2018). Project construction is expected to require the use of large bulldozers, loaded trucks, and jackhammers, which would generate ground-borne vibration levels of up to 87 VdB (0.089 PPV [in/sec]), 86 VdB (0.076 PPV [in/sec]), and 79 VdB (0.035 PPV [in/sec]), respectively, when measured at 25 ft.

Table 4.17.K: Vibration Source Amplitudes for Construction Equipment

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

Source: *Transit Noise and Vibration Impact Assessment Manual* (FTA 2018).

[1] RMS vibration velocity in decibels (VdB) is 1 µin/sec.

[2] The equipment shown in **bold** is expected to be used on site.

µin/sec = microinches per second
ft = foot/feet
FTA = Federal Transit Administration
in/sec = inches per second
L_V = vibration velocity in decibels
PPV = peak particle velocity
RMS = root-mean-square
VdB = vibration velocity decibels

The greatest vibration levels are anticipated to occur during the demolition, site preparation, and grading phase. All other phases are expected to result in lower vibration levels. The distance to the nearest buildings for vibration impact analysis is measured between the nearest off-site buildings and the project site boundary (assuming the construction equipment would be used at or near the project site boundary) because vibration impacts normally occur within the buildings.

The formula for vibration transmission is provided below:

$$L_vdB\ (D) = L_vdB\ (25\ ft) - 30\ Log\ (D/25)$$
$$PPV_{equip} = PPV_{ref} \times (25/D)^{1.5}$$

Table 4.17.L lists the projected vibration levels from various construction equipment expected to be used from the center of the project site under Phases 1 and 2 to the nearest buildings in the area surrounding the project site. Phase 2 is divided into two subphases 2a and 2b. Phase 2a represents the construction area at the two classroom buildings and Phase 2b represents the construction area at Building 16. As shown in Table 4.17.L, the closest building from the center of the construction area is approximately 45 ft and would experience a vibration level of up to 79 VdB. This vibration level would have the potential to result in community annoyance for either the existing or proposed on-site use because vibration levels would exceed the FTA community annoyance threshold of 78 VdB for daytime residences. Although vibration levels generated from project construction could result in community annoyance, construction vibration levels would stop once project construction is completed. Other buildings that surround the construction area under Phases 1 and 2 would experience lower vibration levels because they are farther away.

Similarly, Table 4.17.M lists the projected vibration levels from various construction equipment expected to be used at the project construction boundary under Phases 1 and 2 to the nearest buildings in the vicinity of the project site. As shown in Table 4.17.M, the closest building from the project construction boundary under Phases 1 and 2 would be approximately 5 ft and would experience a vibration level of up to 0.995 PPV (in/sec). This vibration level would have the potential to result in building damage because the surrounding buildings would be constructed equivalent to non-engineered timber and masonry and vibration levels would exceed the FTA vibration damage threshold of 0.20 PPV (in/sec). The implementation of MM N-2 would restrict heavy construction equipment (e.g., large bulldozers and loaded trucks) or require the use of light construction equipment (e.g., small bulldozers and trucks) within 15 ft from all buildings and would reduce construction vibration levels to 0.191 PPV (in/sec). Therefore, construction vibration impacts would be less than significant with the implementation of MM N-2.

Long-Term Operational Impacts. The proposed project would not generate vibration. In addition, vibration levels generated from project-related traffic on the adjacent roadways (The City Drive, SR-22, I-5, and other roadways in the vicinity of the project site) are unusual for on-road vehicles because the rubber tires and suspension systems of on-road vehicles provide vibration isolation. Therefore, vibration impacts from project-related operations would be less than significant. No mitigation measures are required.

Table 4.17.L: Potential Construction Vibration Annoyance

Construction Phase	Land Use	Direction	Equipment/ Activity	Reference Vibration Level (VdB) at 25 ft	Distance to Structure (ft)[1]	Vibration Level (VdB)
1	UCI Medical Center Research Hospital	North	Large bulldozers	87	255	57
			Loaded trucks	86	255	56
			Jackhammer	79	255	49
	YTC (Admin, Medical, Control, classrooms, and Housing Unit T)	South	Large bulldozers	87	200	60
			Loaded trucks	86	200	59
			Jackhammer	79	200	52
	Manchester Office Building	West	Large bulldozers	87	240	58
			Loaded trucks	86	240	57
			Jackhammer	79	240	50
2a[2]	YTC (Housing Unit A)	North	Large bulldozers	87	45	79
			Loaded trucks	86	45	78
			Jackhammer	79	45	71
	YTC (Housing Units Q and T)	East	Large bulldozers	87	160	63
			Loaded trucks	86	160	62
			Jackhammer	79	160	55
	YTC (Building 14)	South	Large bulldozers	87	60	76
			Loaded trucks	86	60	75
			Jackhammer	79	60	68
	YTC (Housing Unit B)	West	Large bulldozers	87	185	61
			Loaded trucks	86	185	60
			Jackhammer	79	185	53
2b[3]	YTC (Housing Unit Q)	Northwest	Large bulldozers	87	190	61
			Loaded trucks	86	190	60
			Jackhammer	79	190	53
	YTC (Food Service Building 4)	East	Large bulldozers	87	140	65
			Loaded trucks	86	140	64
			Jackhammer	79	140	57
	Orangewood Children's Home	Southwest	Large bulldozers	87	210	59
			Loaded trucks	86	210	58
			Jackhammer	79	210	51
	YTC (YLA 1)	West	Large bulldozers	87	165	62
			Loaded trucks	86	165	61
			Jackhammer	79	165	54

Source: Compiled by LSA (2024).

Note: The FTA community annoyance threshold is 78 VdB for daytime residences.

[1] Distance from the center of the construction area for the respective construction phase to the building structure.

[2] Construction phase 2a represents the construction area at the two classroom buildings.

[3] Construction phase 2b represents the construction area at Building 16.

ft = foot/feet

FTA = Federal Transit Administration

VdB = vibration velocity decibels

Table 4.17.M: Potential Construction Vibration Damage

Construction Phase	Land Use	Direction	Equipment/ Activity	Reference Vibration Level at 25 ft	Distance to Structure (ft)[1]	Vibration Level
				PPV (in/sec)		PPV (in/sec)
1	UCI Medical Center Research Hospital	North	Large bulldozers	0.089	80	0.016
			Loaded trucks	0.076	80	0.013
			Jackhammer	0.035	80	0.006
	YTC (Admin, Medical, Control, classrooms, and Housing Unit T)	South	Large bulldozers	0.089	5	0.995
			Loaded trucks	0.076	5	0.850
			Jackhammer	0.035	5	0.391
	Manchester Office Building	West	Large bulldozers	0.089	5	0.995
			Loaded trucks	0.076	5	0.850
			Jackhammer	0.035	5	0.391
2a[2]	YTC (Housing Unit A)	North	Large bulldozers	0.089	5	0.995
			Loaded trucks	0.076	5	0.850
			Jackhammer	0.035	5	0.391
	YTC (Housing Units Q and T)	East	Large bulldozers	0.089	10	0.352
			Loaded trucks	0.076	10	0.300
			Jackhammer	0.035	10	0.138
	YTC (Building 14)	South	Large bulldozers	0.089	5	0.995
			Loaded trucks	0.076	5	0.850
			Jackhammer	0.035	5	0.391
	YTC (Housing Unit B)	West	Large bulldozers	0.089	5	0.995
			Loaded trucks	0.076	5	0.850
			Jackhammer	0.035	5	0.391
2b[3]	YTC (Housing Unit Q)	Northwest	Large bulldozers	0.089	25	0.089
			Loaded trucks	0.076	25	0.076
			Jackhammer	0.035	25	0.035
	YTC (Food Service Building 4)	East	Large bulldozers	0.089	5	0.995
			Loaded trucks	0.076	5	0.850
			Jackhammer	0.035	5	0.391
	Orangewood Children's Home	Southwest	Large bulldozers	0.089	50	0.031
			Loaded trucks	0.076	50	0.027
			Jackhammer	0.035	50	0.012
	YTC (YLA 1)	West	Large bulldozers	0.089	25	0.089
			Loaded trucks	0.076	25	0.076
			Jackhammer	0.035	25	0.035

Source: Compiled by LSA (2024).
Note: The FTA-recommended building damage threshold is 0.20 PPV [in/sec]) at the receiving non-engineered timber and masonry building.
[1] Distance from the construction boundary for the respective construction phase to the building structure.
[2] Construction phase 2a represents the construction area at the two classroom buildings.
[3] Construction phase 2b represents the construction area at Building 16.
ft = foot/feet
FTA = Federal Transit Administration
in/sec = inches per second
PPV = peak particle velocity
VdB = vibration velocity decibels

Mitigation Measure:

MM N-2 The construction contractor shall restrict heavy construction equipment (e.g., large bulldozers and loaded trucks) or require the use of light construction equipment (e.g., small bulldozers and trucks) within 15 feet from all building structures.

Question 4.17 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?

Response to Question 4.17 c):

No Impact. The closest airports to the project site are the John Wayne Airport and the Fullerton Municipal Airport, which are located approximately 7.1 miles south and 7.8 miles northwest of the project site, respectively. The project site is outside the 60 dBA CNEL noise contour of John Wayne Airport and Fullerton Municipal Airport based on the Airport Environs Land Use Plan for John Wayne Airport and Fullerton Municipal Airport, respectively. Therefore, the project would not expose people residing or working in the vicinity to aviation-related excessive noise levels, and no impact would occur.

4.18 *Population and Housing*

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

Question 4.18 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)?

Response to Question 4.18 a):

Less than Significant Impact. The proposed project includes the demolition and redevelopment of several existing Campus buildings, including housing, administrative, and educational buildings. The proposed project intends to demolish five occupied and five unoccupied housing units, retaining four existing occupied housing units and three buildings. In place of the proposed demolished housing units, four new housing units would be constructed. These include the YTC living units, transitional living units, long-term housing units, and independent living units. The total capacity of occupied existing housing units to be demolished accounts for approximately 90 beds. The total capacity of the proposed housing units is approximately 110 beds. As the proposed project intends to replace existing housing with new housing facilities providing only a minor increase in the number of beds, minimal population growth, if any, would occur on-site.

The existing facility operates with 224 staff, 130 of whom are deputized. Under the proposed project, an additional 66 staff would be working on site. While an increase in on-site staff would be necessary to accommodate the potential growth in the juvenile offender population, it is anticipated that new staff would be drawn from the existing local workforce and would not result in significant regional population shifts. The proposed project would also create temporary construction jobs that would also be expected to be filled by the local workforce in Orange County or surrounding areas. In addition, the three project phases are estimated to unfold over a period of several years, balancing the number of new employees over time.

The Growth Management Element of the City of Orange's 2010 General Plan accounts for 27.5 percent population growth between 2008 and 2030.[52] In 2010, the City of Orange had a population of approximately 136,416. According to the Growth Management Element, the City of Orange's population is projected to increase to approximately 174,000 residents by 2030. The City of Orange had a population of approximately 138,621 people in 2024.[53,54] Therefore, the City has the capacity to accommodate the potential minimal increase in population in and outside of the project site, making any population growth due to the proposed project negligible.

The proposed project does not include development of roads or other infrastructure off site that may lead to an indirect increase in population.

Ultimately, any population growth associated with the proposed project would be negligible, as the Campus and the City of Orange have significant remaining capacity and resources to accommodate them. The impact would be less than significant, and no mitigation would be required.

Question 4.18 b): Displace substantial numbers of existing people or housing, necessitating the construction of replacement housing elsewhere?

Response to Question 4.18 b):

Less than Significant Impact. As previously mentioned, the proposed project includes the demolition of five occupied and five unoccupied housing units, and the redevelopment of four new housing units through two project phases. Throughout these phases of demolition and development, four existing housing units and three existing buildings would remain in the facility with minor improvements. Table 4.18.A below details existing and proposed housing units and their capacities for the proposed project. Refer to Figure 3-5, Phasing Plan, for the order in which these housing units would be demolished and constructed.

The total capacity of existing occupied housing units to be demolished is approximately 90 beds. Residents located in these buildings would be relocated to a camp facility for the duration of demolition and construction of new housing units. While the total existing capacity of the Campus is 380 beds, the maximum daily population from 2021–2022 within the facility was only 121 youth. Therefore, approximately 259 beds were still available within the facility, even at maximum occupancy. Because only 90 beds would be demolished, the facility would have abundant remaining capacity on site for relocation purposes.

Additionally, two separate phases of demolition and development would ensure that relocation is spaced out and remaining housing units have available capacity to accommodate relocated residents. Phase 1 of the proposed project would include the demolition of three unoccupied housing units (Units I, R, and S) and three occupied housing units (Units A, M, and O), which would total 58 residents in need of relocation

[52] City of Orange General Plan. Growth Management Element. Website: https://www.cityoforange.org/home/showpublisheddocument/202/637698172544070000 (accessed October 2024).

[53] California Department of Finance. 2024 Orange Population Estimates. Website: https://view.officeapps.live.com/op/view.aspx?src=https%3A%2F%2Fdof.ca.gov%2Fwp-content%2Fuploads%2Fsites%2F352%2FForecasting%2FDemographics%2FDocuments%2FE-4_2024_InternetVersion.xlsx&wdOrigin=BROWSELINK (accessed November 2024).

[54] 136,416 * 1.275 = 173,930.4

Table 4.18.A: Project Housing Summary

Units to Remain			
Housing Unit	**Occupancy Status**	**Project Phase**	**Total Capacity (Approximate)**
Housing Unit Q	Occupied	-	16 Beds
Housing Unit T	Occupied	-	30 Beds
Housing Unit Y	Occupied	-	30 Beds
Housing Unit Z	Occupied	-	30 Beds
Intake/Release Center (IRC)	Occupied	-	Unknown Intake Units
Unit B	Unoccupied	-	20 Beds
Unit C	Unoccupied	-	22 Beds
		Total Available Capacity (Approximate):	***148 Beds***
Housing Units to be Demolished			
Unit A	Occupied	Phase 1	16 Beds
Unit G	Occupied	Phase 2	16 Beds
Unit H	Occupied	Phase 2	16 Beds
Unit I	Unoccupied	Phase 1	16 Beds
Unit J	Unoccupied	Phase 2	16 Beds
Unit K	Unoccupied	Phase 2	16 Beds
Unit M	Occupied	Phase 1	20 Beds
Unit O	Occupied	Phase 1	22 Beds
Unit R	Unoccupied	Phase 1	16 Beds
Unit S	Unoccupied	Phase 1	16 Beds
			Total Phase 1 Occupied Capacity Demolished (Approximate): 58 beds
			Total Phase 2 Occupied Capacity Demolished (Approximate): 32 beds
			Total Occupied Capacity Demolished (Approximate): 90 beds
Proposed Housing Units			
YTC Living Units	-	Phase 1	60 Beds
Transitional Living Units	-	Phase 1	8 Beds
Long-Term Housing Units	-	Phase 2	22 Beds
Independent Living Units	-	Phase 2	20 Beds
			Total Phase 1 Proposed Additional Capacity: 68 beds
			Total Phase 2 Proposed Additional Capacity: 42 beds
			Total Proposed Additional Capacity: 110 beds

if each occupied unit were at maximum capacity. During this phase, six occupied housing units, two unoccupied housing units, two unoccupied buildings, and one occupied building would remain functional. The unoccupied housing units have an approximate maximum capacity of 32 beds, and the unoccupied buildings have an approximate capacity of 42 beds, totaling 74 available beds. Therefore, all relocation can be comfortably accommodated on site during Phase 1 of the proposed project.

Phase 2 of the proposed project would begin after all demolition and development of Phase 1 is complete, allowing residents to relocate to the new YTC Living Units and Transitional Housing Units, totaling 68 beds. Phase 2 of the proposed project would include the demolition of two occupied housing units (Units G and H) and two unoccupied housing units (Units J and K), which would total 18 residents in need of relocation if each occupied unit was at maximum capacity. During this phase, five occupied housing units and two unoccupied buildings would remain functional. The unoccupied buildings have an approximate capacity of 42 beds, and the likelihood of each occupied housing unit being at maximum capacity is extremely low.

Therefore, all relocation can be comfortably accommodated on site during Phase 2 of the proposed project.[55]

While the demolition of existing Campus housing units and redevelopment of new housing units would require relocation of existing residents, each phase of the project would continue operation of sufficient relocation housing units to accommodate all existing and potential residents on site. Therefore, any displacement caused by the proposed project would not necessitate the construction of replacement housing elsewhere. Additionally, no displacement of off-site housing would occur as no demolition or development would commence outside of the Campus. The project site is institutional in nature and the housing provided for youth law violators is not considered housing that could be utilized by residents outside of the facility. Therefore, the proposed project would result in a less than significant impact, and no mitigation would be required.

[55] Youth Transition Center Design Criteria Document. March 31, 2023.

4.19 *Public Services*

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

Question 4.19 a): Result in substantial adverse physical impacts associated with the provision of new or physically altered governmental facilities, need for new or physically altered governmental facilities, the construction of which could cause significant environmental impacts, in order to maintain acceptable service ratios, response times or other performance objectives for any of the public services:

Question 4.19 a-*i*): Fire protection.

Response to Question 4.19 a-*i*):

Less than Significant Impact. Fire protection and emergency medical services for the project site are provided by Orange City Fire Department (OCFD). The OCFD is comprised of three divisions and provides fire protection, paramedic and ambulance services, fire prevention, public education, hazardous materials management, and fire investigation services to approximately 139,911 residents in the City of Orange.[56] The OCFD consists of eight stations with paramedic teams, three of which also include ambulance services with an average response time of approximately five minutes.[57] Primary fire, paramedic, and basic medical services would be provided by Station No 6, which is located at 345 The City Drive South in Orange, directly adjacent to the south parking structure southwest of the Campus. OCFD Station No 5, located at 1345 West Maple Avenue and approximately 1.1 miles northeast of the project site is the second-closest station, and would respond in the event Station No 6 could not.

The OCFD is the reviewing fire agency, as delegated by the State Fire Marshall, for the proposed project's design of fire safety and suppression implementation. The proposed project's fire suppression design

[56] Orange City Fire Department. Website: https://orangecityfire.org (accessed October 2024).

[57] City of Orange General Plan Safety Element. Website: https://www.cityoforange.org/home/showpublisheddocument/214/637698172567530000 (accessed October 2024).

includes plans to access the building along the east, south and west sides of the building, two additional fire hydrants along the south corners of the building, and the installation of an automatic wet fire suppression system and associated utility lines to serve the entire facility.[58]

Construction of the proposed project would allow vehicles access to the project site via Sidwell Way, and all construction equipment would be staged on the northeastern portion of Campus. Emergency Fire services would not be obstructed in their access to the site. The proposed project would redevelop the Campus and would include a negligible population increase. Therefore, it would be unlikely that service ratios or response times would be impacted, and no new facilities would be necessary to maintain existing ratios.

The proposed project would not result in any substantial adverse physical impacts associated with the provision of or need for physically altered fire protection facilities and would require no additional expansion or staffing to maintain acceptable service ratios and response times. Therefore, any impact would be less than significant, and no mitigation is required.

Question 4.19 a-*ii*): Police protection.

Response to Question 4.19 a-*ii*):

No Impact. Sherriff protection services for the proposed project are provided on-site by Deputy Juvenile Correctional Officers. Deputy Juvenile Correctional Officers provide individual and group counseling, supervise daily activities, and ensure the safety of youth and the security of the facility.[59] Deputy Juvenile Correctional officers are overseen by the Juvenile Operations Bureau of The Orange County Probation Department, which is responsible for providing community supervision, support, and guidance to individuals who have been convicted of a crime and sentenced to probation.

The existing facility is served by 130 deputized staff who are responsible for the supervision of approximately 120 youth across the facility and are required to escort individuals and groups through secure areas. Each Living Unit in the proposed project is designed to provide staff areas and resources for at least one deputy at all times, and many Living Units would also require staff stations for supervision of shared living spaces.[60] The proposed project includes the demolition of existing Living Spaces and the construction of four new Living Units, including the YTC Living Units, The Independent Living Units, The Transitional Living Units, and The Long-Term Housing Units. The establishment of more Living Units may require additional deputized staff, and the proposed project estimates approximately 38 additional deputy staff would be necessary. However, the proposed project would not require expansion or additional staffing of off-site Public Police Facilities as all necessary Police services are provided on-site. Therefore, the proposed project would have no impact on existing Public Police Services in the City of Orange, and no mitigation is required.

[58] Youth Transition Center Design Criteria Document. March 31, 2023.

[59] OC Probation. Juvenile Hall. Website: https://ocprobation.ocgov.com/bureaus/juvenile-operations/juvenile-facilities/juvenile-hall (accessed October 2024).

[60] Youth Transition Center Design Criteria Document. March 31, 2023.

Question 4.19 a-*iii*): Schools.

Response to Question 4.19 a-*iii*):

No Impact. The proposed project includes the demolition of existing educational buildings and redevelopment of new and improved educational, vocational, classroom, and library buildings. A new educational and vocational building would offer resident youth the opportunity to further their education with college classes, complete a high school curriculum, and participate in CTE programs.[61]

The proposed project provides space for necessary schooling and an expansion of educational services offered to resident youth. The expansion of educational resources and programs may require additional staff but remains contained within the secure Campus. Additionally, the proposed project would not require expansion or additional staffing of off-site schools or other public facilities because the necessary public schooling services are provided on-site for resident youth at the Campus. Therefore, the proposed project would have no impact on existing public or private schools. No impact would occur, and no mitigation is necessary.

Question 4.19 a-*iv*): Parks.

Response to Question 4.19 a-*iv*):

No Impact. The existing Campus provides indoor and outdoor recreation for resident youth, including an indoor gymnasium, fitness center, basketball/volleyball court, and outdoor recreational field. The proposed project intends to improve outdoor recreational facilities, including the implementation of a potential soccer and multi-purpose field, handball courts, a walking/jogging track, outdoor amphitheater courtyard, and an outdoor workout/calisthenics area on the northeast portion of the facility, at the site of the existing recreational field.[62]

The proposed project would not require or add demand for any off-site park infrastructure as resident youth's recreation is currently and would continue to be provided within the secure Campus. Additions to outdoor recreation would not increase public demand or usage of any existing public parks. Therefore, no impact would occur, and no mitigation is necessary.

Question 4.19 a-v): Other public facilities.

Response to Question 4.19 a-*v*):

No Impact. All proposed demolition and redevelopment activities proposed under the proposed project would be contained within the existing secure Campus. While the proposed project may result in an increased demand for police, schooling, and parks within the facility, no additional demand on off-site City or County public facilities in the project area is required. Therefore, no impact would occur, and no mitigation is necessary.

[61] Youth Transition Center Design Criteria Document. March 31, 2023.
[62] Ibid.

4.20 *Recreation*

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

Question 4.20 a): Increase the use of existing neighborhood and regional parks or other recreational facilities such that substantial physical deterioration of the facility would occur or be accelerated?

Response to Question 4.20 a):

No Impact. The existing Campus includes an indoor Multi-Purpose Recreation Center and outdoor recreational fields. The proposed project involves demolition and construction of buildings and outdoor improvements on the Campus. The facility is contained within a secure perimeter, and all demolition and development would occur on-site. Proposed outdoor recreational improvements may include a soccer and multipurpose field, handball courts, a walking/jogging track, outdoor amphitheater courtyard, and outdoor workout/calisthenics area. These improvements would be contained within the secured perimeter of the Campus and would not be available for use to the public. Conversely, resident youth would not be able to access recreational facilities outside of the secured perimeter, with the exception of youth residing in independent living units.

Youth residents are prescribed a certain amount of recreation time pursuant to Titles 15 and 24 of the California Code of Regulations, and the Campus provides the necessary recreation facilities on site to satisfy all applicable requirements. As all proposed development would occur within the Campus, and population increase due to the project is negligible, the proposed project would not increase the use of existing neighborhood and regional parks or other recreational facilities. No impact would occur, and no mitigation is necessary.

Question 4.20 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?

Response to Question 4.20 b):

Less than Significant Impact. The proposed project involves improvements to existing outdoor recreation areas, with many potential additions. The existing recreational fields include a baseball diamond that could be repurposed to create a multipurpose field for sports such as soccer or flag football, a green space amphitheater with concrete varying levels, and a landscaped courtyard or walking area. The proposed project would also require outdoor recreational areas for weight training and calisthenics.

All outdoor recreational improvements would be designed to blend into the landscape. Paved sidewalks would also be implemented to provide clear pathways for residents to utilize outdoor recreational amenities. The project site is already developed and the recreational facilities included in the proposed project area consistent with the existing development. All new recreational facilities would comply with local and State regulations. Therefore, the recreational improvements proposed by the project would result in a less than significant impact on the environment, and no mitigation would be necessary.

4.21 *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?	☐	☐	☒	☐
b) Would the project conflict or be inconsistent with CEQA section 15064.3, subdivision (b)?	☐	☐	☒	☐
c) Substantially increase hazards due to a geometric design feature (e.g., sharp curves or dangerous intersections) or incompatible uses (e.g., farm equipment)?	☐	☐	☒	☐
d) Result in inadequate emergency access?	☐	☐	☒	☐

The following analysis is based upon data presented in the Project Schedule and Trip Generation table provided as Appendix K to this IS/MND, which were calculated using the Institute of Transportation Engineers (ITE) *Trip Generation Manual*, 11th Edition.[63]

Question 4.21 a): Conflict with a program plan, ordinance or policy addressing the circulation system, including transit, roadway, bicycle and pedestrian facilities?

Response to Question 4.21 a):

Less than Significant Impact. The proposed project involves the redevelopment of the Campus, an approximately 17-acre site currently housing both Juvenile Hall and the adjacent Youth Leadership Academy (YLA). The proposed project aims to incorporate services currently provided at the Youth Guidance Center (YGC) located directly east of the Campus across the Santa Ana River, onto the main Campus creating the improved Youth Transition Center (YTC).

The proposed project involves demolishing approximately 95,589 sf of existing facilities and constructing approximately 87,223 sf of new buildings, resulting in a slight reduction in total square footage but an expansion in programming and services. The proposed project would add educational and vocational

[63] Institute of Transportation Engineers (ITE). 2021. Trip Generation Manual, 11th Edition, September.

training, supportive housing, and medical and behavioral health services, requiring 61 additional staff and housing 8 new residents in the TAY program.

During the construction phases of the proposed project, facilities would be constructed in compliance with applicable City and County standards, and existing access intersections would be maintained to support continuity with the surrounding circulation system.

In order to assess the impact of the proposed project on the surrounding circulation system, trips generated during typical operations were calculated based on the projected occupancy levels of on-site uses and the specific operational schedules of staff and program participants. Trips to and from the project site by deputized correctional officers, deputized supervisors, deputized administrative staff, support staff, behavioral health staff, school staff, and TAY housing residents were modeled.

The trip generation summary provided in Appendix K of this IS/MND provides detailed project scheduling and anticipated inbound and outbound trips for staff and program participants by time of day. As shown in Appendix K, operation of the proposed project is anticipated to generate a net increase of 130 daily trips, including a net increase of 21 a.m. peak hour and 16 p.m. peak hour trips. With staggered activity schedules and employee shift times, project trips are distributed throughout the day, therefore reducing peak-hour trip concentration.

The distributed trip pattern, minimal peak-hour trips, and compliance with City and County standards for access points ensure minimal impact on the surrounding circulation system, aligning with current and future network use, and screen the project from requiring a full level of service (LOS) analysis. While there are no bike lanes currently present on the roadways directly surrounding the project site, Orange County Transportation Authority (OCTA) bus stops are provided along The City Drive South, with one stop just north of the intersection with Dawn Way and another just north of the intersection with Justice Center Way. Both stops are serviced by Route 47, which provides access from Fullerton to Newport Beach and Route 57, which provides access from Brea to Newport Beach. As such, the project site is served by existing public transit facilities, and it is reasonable to assume that employees, visitors, or youth living outside the security perimeter could utilize these facilities to come and go from the project site.

The proposed project would not make any changes to the public right-of way in the vicinity of the project site and would not conflict with existing or planned pedestrian, bicycle, or transit facilities. Therefore, project impacts associated with conflicts with a program plan, ordinance, or policy addressing the circulation system, including transit, roadway, bicycle, and pedestrian facilities. Impacts would be less than significant, and no mitigation is required.

Question 4.21 b): Would the project conflict or be inconsistent with CEQA section 15064.3, subdivision (b)?

Response to Question 4.21 b):

Less than Significant Impact. On September 27, 2013, Governor Jerry Brown signed Senate Bill (SB) 743 into law, which directed the Governor's Office of Planning and Research (OPR) to establish new CEQA guidance for jurisdictions that removes the level of service (LOS) method, which focuses on automobile vehicle delay and other similar measures of vehicular capacity or traffic congestion, from CEQA transportation analysis. Rather, vehicle miles traveled (VMT), or other measures that promote "the reduction of greenhouse gas emissions, the development of multimodal transportation networks, and a

diversity of land uses," are now used as the basis for determining significant transportation impacts in the State.

As part of a January 2018 update to the *State CEQA Guidelines*, Section 15064.3 codifies that project-related transportation impacts are typically best measured by evaluating the project's VMT. Specifically, subdivision (b) focuses on specific criteria related to transportation analysis. Subdivision (b)(2) addresses VMT associated with transportation projects and states that projects that reduce VMT, such as pedestrian, bicycle, and transit projects, should be presumed to have a less than significant impact. Subdivision (b)(4) stipulates that Lead Agencies have the discretion to formulate a methodology that would appropriately analyze a project's VMT.

The Orange County Board of Supervisors adopted the *Guidelines for Evaluating Vehicle Miles Traveled under CEQA* (County VMT Guidelines),[64] at its November 17, 2020, meeting pursuant to SB 743 to include VMT analysis methodology and thresholds.

Since the project site is located within the City of Orange, this analysis considers VMT in the context of both the City's adopted Traffic Impact Analysis Guidelines for Vehicle Miles Traveled and Level of Service Assessment (City TIA Guidelines),[65] dated July 2020, in addition to the County VMT Guidelines. According to both the City and County TIA Guidelines, certain land uses have been identified as having the presumption of a less than significant impact. This criterion includes project types identified as Community Institutions per the City TIA Guidelines or Public Facilities per the County VMT Guidelines. As a public institution providing a broad range of rehabilitative treatment and programs for resident youth within a consolidated facility, the proposed project qualifies for project-type screening and is presumed to have a less than significant impact on VMT. As such, the proposed project would result in a less than significant transportation impact with respect to VMT. The proposed project would not be inconsistent with *State CEQA Guidelines* Section 15064.3, subdivision (b), and no mitigation is required.

Question 4.21 c): Substantially increase hazards due to a geometric design feature (e.g., sharp curves or dangerous intersections) or incompatible uses (e.g., farm equipment)?

Response to Question 4.21 c):

Less than Significant Impact. With implementation of the proposed project, vehicle access to the facility would continue to be provided via The City Drive South, which runs in a north-south orientation and is classified as a Principal Arterial roadway in the City's General Plan Circulation and Mobility Element. The project site is bordered by Service Way South to the north and Justice Center Way to the south both of which run in an east-west direction. Justice Center Way's eastern edge transitions into Sidwell Way, which curves along the project site and marks its eastern boundary.

Given the secure nature of the existing facility, vehicular circulation within the project site is unavailable, which would not change under the proposed project. While the proposed project would modify surface parking lots, it would not change the overall circulation patterns of the project site from existing

[64] County of Orange. 2020. Guidelines for Evaluating Vehicle Miles Traveled Under CEQA, September. Website: https://ocds.ocpublicworks.com/sites/ocpwocds/files/2022-12/Oak%20Grove_App%20H%20OC%20VMT%20Guidelines.pdf (accessed November 14, 2024).

[65] City of Orange. 2020. Traffic Impact Analysis Guidelines for Vehicle Miles Traveled and Level of Service Assessment. July. Website: https://www.cityoforange.org/home/showpublisheddocument/2088/637708760828930000 (accessed November 14, 2024).

conditions. As such, the proposed project would not include any sharp curves or turns that would result in hazardous conditions.

As discussed in the Response to Question 4.21 a), above, the proposed project would contribute minimal peak-hour trips to surrounding roadways, and therefore would not substantially contribute to vehicle queuing that could exceed the capacity of turn lanes and create hazards to through traffic at intersections in the vicinity of the project site.

Lastly, the proposed project would redevelop the already developed Campus and would not introduce any new roadways or change the overall land uses within the project site. This proposed development would be consistent with surrounding land uses and available infrastructure and would not introduce any incompatible uses into the project site or the project vicinity. Therefore, the proposed project would not substantially increase hazards due to a geometric design feature or incompatible uses. Project impacts would be less than significant, and no mitigation would be required.

Question 4.21 d): Result in inadequate emergency access?

Response to Question 4.21 d):

Less than Significant Impact. Emergency vehicle access to the project site would be provided either by an entry point along Sidwell Way or Service Way South. Service Way South, Justice Center Way, and Sidwell Way are all accessed either directly or indirectly via The City Drive South. This roadway has already been designed to support the weight of a fire apparatus (approximately 68,000 pounds) and the Orange City Fire Department has already verified that the roadway meets the minimum required turning radii in order to accommodate emergency vehicles.

The proposed project is not expected to result in substantial traffic impacts or queuing on nearby streets during construction, as all equipment will be staged within the project site. Additionally, there are no proposed changes to the existing circulation system surrounding the site during project operations, ensuring that emergency evacuation routes remain unaffected. Access to The City Drive South will remain unobstructed during both construction and operation. As discussed in the Response to Question 4.21 a) above, the proposed project would contribute minimal peak-hour trips to surrounding roadways, which would not result in substantial delays to the movement of emergency vehicles along these roadways.

The proposed project would comply with Chapter 5 of the California Fire Code (CFC) requirements pertaining to emergency apparatus roadways and water supply. Further, the proposed project would be reviewed and approved by the Fire Department and City staff as part of the City's Design Review process to ensure the proposed project is compliant with all applicable codes and ordinances for emergency vehicle access. Therefore, with Fire Department review of the project plans, project impacts related to emergency access would be less than significant, and no mitigation would be required.

4.22 *Tribal Cultural Resources*

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

Question 4.22 a): Listed or eligible for listing in the California Register of Historical Resources, or in a local register of historical resources as defined in Public Resources Code section 5020.1(k).

Question 4.22 b): A resource determined by the lead agency, in its discretion and supported by substantial evidence, to be significant pursuant to criteria set forth in subdivision (c) of Public Resources Code Section 5024.1. In applying the criteria set forth in subdivision (c) of Public Resource Code Section 5024.1, the lead agency shall consider the significance of the resource to a California Native American tribe.

Response to Questions 4.22 a) and b):

Less than Significant With Mitigation Incorporated.

Effective July 1, 2015, Assembly Bill (AB) 52 requires meaningful consultation with California Native American Tribes on potential impacts to Tribal Cultural Resources, as defined in Public Resources Code

(PRC) Section 21074 as 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 of Historical Resources or included in a local register of historical resource. Per PRC Section 21080.3.1, a tribe must submit a written request to the relevant lead agency if it wishes to be notified of proposed projects in its traditionally and culturally affiliated area. The lead agency must provide written formal notification to the tribes that have requested it within 14 days of determining that a project application is complete or of deciding to undertake a project. The tribe must respond to the lead agency within 30 days of receipt of the notification if it wishes to engage in consultation on the project, and the lead agency must begin the consultation process within 30 days of receiving the request for consultation. Consultation concludes when either (1) the parties agree to mitigation measures to avoid a significant effect, if one exists, on a tribal cultural resource, or (2) a party, acting in good faith and after reasonable effort, concludes that mutual agreement cannot be reached. AB 52 also addresses confidentiality during tribal consultation per PRC Section 21082.3(c).

The Native American Heritage Commission (NAHC) is a State agency that maintains the Sacred Lands File (SLF), an official list of sites that are of cultural and religious importance to California Native American tribes. The NAHC was contacted on September 27, 2024, in order to request a SLF search for the project site. The NAHC responded on October 15, 2024, that the SLF search was negative for the project site.

In compliance with AB 52, letters have been distributed to local Native American tribes that are traditionally and culturally affiliated with the geographic area of the proposed project and have previously requested to be notified of future projects proposed by the City. The letters, which were sent on October 14, 2024, via certified mail, provided each tribe with an opportunity to request consultation with the City regarding the proposed project. The purpose of this effort was to provide Native American tribes with the opportunity for meaningful participation and to identify known tribal cultural resources on or near the project site. The record of tribal consultation efforts is included as Appendix L to this IS/MND. The following tribes received letters pursuant to AB 52:

1. Gabrieleño Band of Mission Indians – Kizh Nation
2. Juaneño Band of Mission Indians
3. Gabrieleño Tongva San Gabriel Band of Mission Indians
4. Soboba Band of Luiseño Indians

In compliance with AB 52, tribes had 30 days from the date of receipt of notification to request consultation on the proposed project. Information provided through the AB 52 tribal consultation process typically informs the assessment as to whether tribal cultural resources are present within the project site and the significance of any potential impacts to such resources. The responses received during the open tribal consultation period were from a representative of the Gabrieleño Band of Mission Indians – Kizh Nation and the Gabrieleño Tongva San Gabriel Band of Mission Indians, which were received on October 30, 2024, and November 14, 2024, respectively. Both the Kizh Nation and Gabrieleño Tongva representatives requested to initiate the formal consultation process with the County, which is currently still ongoing. However, the County has established standard measures to address potential tribal concerns regarding the proposed project. As such, Standard Condition (SC) TCR-1 is applicable to the proposed project, as discussed below.

As discussed in Section 4.9, Cultural Resources, of this IS/MND, no known cultural resources have been documented within the project site boundaries or in the direct vicinity of the project site based on archival

research and field surveys. In addition, limited potential exists for the proposed project to impact tribal cultural resources due to significant prior disturbance from past grading and development activities on the project site and in the surrounding area. Regulatory Compliance Measure (RCM) CUL-1, identified in Section 4.9, Cultural Resources, sets forth procedures for handling inadvertent discoveries of human remains, including those determined to be Native American.

To date, no other responses from the Native American community have been received as part of the AB 52 tribal consultation effort. As a result of the County's consultation efforts, no known tribal cultural resources have been identified within the project site. As such, adherence to SC TCR-1 and RCM CUL-1 would ensure that impacts related to the inadvertent discovery of Native American resources would be less than significant.

Standard Condition:

SC TCR-1 **Unanticipated Discovery of Native American Resources.** If unanticipated archaeological resources or deposits are discovered during ground-disturbing activities, Orange County Public Works (OC Public Works) shall implement the following measures. All work shall halt within a 50-foot radius of the discovery. OC Public Works shall retain a qualified professional archaeologist with knowledge of Native American resources to assess the significance of the find. If the resources are Native American in origin, OC Public Works shall coordinate with the Tribe regarding evaluation, treatment, curation, and preservation of these resources. The archaeologist shall have the authority to modify the no-work radius as appropriate, using professional judgment in consultation with OC Public Works. Work shall not continue within the no work radius until the archaeologist conducts sufficient research and evidence and data collection to establish that the resource is either: (1) not cultural in origin; or (2) not potentially eligible for listing on the California Register of Historical Resources. If a potentially eligible resource is encountered, then the archaeologist and OC Public Works, as lead agency, in consultation with the Tribe, shall arrange for either: (1) avoidance of the resource, if possible; or (2) test excavations to evaluate eligibility, and if eligible, attempt to resolve adverse effects through implementation of appropriate mitigation, which may include, but shall not be limited to, salvage excavation, laboratory analysis and processing, research, curation, and preparation of a report summarizing the find. The assessment of eligibility shall be formally documented in writing as verification that the provisions in the California Environmental Quality Act for managing unanticipated discoveries and Public Resources Code Section 5024 have been met.

4.23 *Utilities and Service Systems*

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

Question 4.23 a): Require or result in the relocation or construction of new or expanded water, wastewater treatment or storm water drainage, electric power, natural gas, or telecommunications facilities, the construction or relocation of which could cause significant environmental effects?

Response to Question 4.23 a):

Less than Significant Impact.

Water. The project site is fully developed with the existing Campus, which generates water demand typical of an institution of its scale. Water demand within the project site, and much of north and central Orange County, is supplied by the Orange County Water District (OCWD). The OCWD water supply originates from the Orange County Groundwater Basin, which is managed and refilled by OCWD.[66]

The City of Orange Water Division provides domestic water service in the City of Orange and constructs and maintains the City's water supply system.[67] The City's primary source of water supply is groundwater supplied by the OCWD, as discussed above. In addition, the City's groundwater supply is supplemented by imported water and surface water purchased from the Metropolitan Water District of Southern California (MWDSC) through the Municipal Water District of Orange County (MWDOC). Specifically, according to the City's 2020 Urban Water Management Plan (UWMP), the City's water supply was approximately 77 percent groundwater, 18 percent purchased or imported water, and 5 percent surface water in the Fiscal Year 2019–2020.[68] It is projected that by the year 2045, the water supply mix would be approximately 85 percent groundwater, 11 percent purchased or imported water, and 4 percent surface water.

The project site contains existing water services in support of the existing Campus, but the proposed project would include additional connections to the existing water main along Justice Center Way to along the southern project site boundary in order to serve the reconfigured building and landscaped area layout. According to the California Emissions Estimator Model (CalEEMod) output for the proposed project (Appendix A), the proposed project is anticipated to generate a water demand of approximately 6,406,555 gallons annually (approximately 19.7 acre-feet [af]). At the time of the preparation of the 2020 UWMP, the total 2025 projected water demand in the City is approximately 27,233 af annually. In 2045, the total projected water demand is 28,077 af annually, with demand totals increasing between 2025 and 2045. As such, water demand generated by the proposed project would represent a negligible contribution to the overall water demand within the service region. Further, the proposed project is redeveloping a site that currently contains a use with similar water demands. As such, it is anticipated that the water demand for the proposed project can be met within the City's existing service capacity, and any potential increase in water demand could be adequately served by existing water supply infrastructure, with the exception of minor connections to facilities adjacent to the project site.

Further, the proposed project would be required to comply with the principles of the State Model Water Efficient Landscape Ordinance that requires improvements in the efficiency of water use in existing and new urban irrigated landscapes. The County adopted a Water Efficient Landscape Ordinance on March 14, 2016, in order to enforce the State mandate. The proposed project is subject to this ordinance and would be required to implement water-efficient landscaping design (i.e., drought-tolerant landscaping) within the project site. As discussed in Regulatory Compliance Measure (RCM) UTL-1, preparation of a project-specific Landscape Plan demonstrating compliance with all applicable elements of the Water Efficient Landscape Ordinance would be required. Adherence to RCM UTL-1 would further ensure that project-

[66] Orange County Water District (OCWD) How Water Works in Orange County. Website: https://www.ocwd.com/learning-center/how-water-works-in-oc/ (accessed October 22, 2024).

[67] City of Orange Water Division. Website: https://www.cityoforange.org/residents/water-division (accessed October 22, 2024).

[68] City of Orange. 2020. Urban Water Management Plan Final. November. Website: https://www.cityoforange.org/home/showpublisheddocument/1540/637873464981170000 (accessed October 22, 2024).

related water demand would not cause the existing water supply to be exceeded during operations of the proposed project. Impacts related to water facilities would be less than significant, and no mitigation is required.

Regulatory Compliance Measure:

RCM UTL-1 **Orange County Water Efficient Landscape Ordinance.** Prior to the issuance of any grading or building permit, the project Applicant shall prepare and submit a Landscape Plan to the Interim Director of the County of Orange (County) Public Works Department, or designee. The County of Orange Public Works Department, or designee, shall confirm that the Landscape Plan for the proposed project is consistent with all applicable provisions outlined in the County's Landscape Water Efficiency Ordinance, as codified in Ordinance No. 16-002.

Wastewater Treatment. As previously stated, the project site is currently developed with the existing Campus and associated facilities. Under existing conditions, wastewater generated within the project site is collected, treated, and disposed of by the Orange County Sanitation District (OCSD). This would continue to be the case under the proposed project. OCSD serves over 20 cities and across 479 square miles, with a service population of approximately 2.6 million people.[69]

Because wastewater is generated at the project site under existing conditions, the site is already served by wastewater infrastructure in the form of an existing 10-inch sewer main. The proposed project would require the installation of new 4-inch sewer laterals to connect existing infrastructure to each proposed structure. As with existing development, wastewater generated by the proposed project would be conveyed to OCSD facilities, ultimately reaching the OCSD Reclamation Plant No. 1, located approximately 7 miles southwest of the project site at 10844 Ellis Avenue in Fountain Valley. OCSD Reclamation Plant No. 1 has a primary treatment capacity of 208 million gallons per day (mgd) and a secondary treatment capacity of 182 mgd.[70] Between 2023 and 2024, the average daily influent to Reclamation Plant No. 1 was approximately 124 mgd.[71] As such, Reclamation Plant No. 1 is currently operating under capacity, and has the potential to process additional wastewater volume.

According the CalEEMod output for the proposed project (Appendix A), indoor water demand of the proposed project would amount to approximately 6,406,555 gallons annually, or approximately 17,552 gallons per day (gpd). In the absence of a project-specific wastewater generation estimate, wastewater generation for the project can be assumed to be 90 percent of the project's indoor water demand, to account for evaporation and absorption losses. As such, the proposed project's wastewater generation would be approximately 15,797 gpd.[72] This volume represents a negligible contribution to the primary and secondary treatment capacities of Reclamation Plant No. 1, approximately 0.0076 percent[73] and 0.0087 percent,[74] respectively. Furthermore, all of the proposed project's plumbing fixtures would comply with California Plumbing Code flow rates as well as CALGreen plumbing fixture requirements. Ultimately,

[69] Orange County Sanitation District (OCSD). n.d. Service Area of Orange County. Website: https://www.ocsan.gov/service-area/ (accessed October 22, 2024).

[70] Orange County Sanitation District (OCSD). 2024. Adopted Budget, Fiscal Years 2024-2025 and 2025-2026, June 26, 2024. Website: https://www.ocsan.gov/wp-content/uploads/2024/10/Adopted-Budget-FY-2024-25-and-2025-26.pdf?id=45626&year=all (accessed October 22, 2024).

[71] Ibid.

[72] 17,552 * 0.90 = 15,796.98, or approximately 15,797 gpd

[73] 15,797 / 208,000,000 = 0.0000759 * 100 = 0.0076 percent

[74] 15,797 / 182,000,000 = 0.0000868 * 100 = 0.0087 percent

the maximum anticipated 15,797 gpd of wastewater generated by the proposed project would only represent a small fraction of the primary daily treatment capacity of Reclamation Plant No. 1; therefore, the proposed project could be adequately served by existing wastewater infrastructure, with the exception of minor connections to each proposed building. As such, the proposed project would not necessitate the construction of new or expanded wastewater facilities that could cause a significant environmental impact. Impacts related to wastewater facilities would be less than significant, and no mitigation is required.

Stormwater Drainage. Refer to Section 4.14, Hydrology and Water Quality, of this IS/MND for further discussion related to the project site's drainage characteristics.

Project improvements would include the establishment of new storm drainage laterals to be extended as needed from the existing 42-inch mainline storm drain provided on the Campus. In addition to the existing series of 24-inch by 24-inch inlets in the courtyard areas around the existing Campus buildings, the proposed project would add a new low point with a relocated inlet to direct storm flows to a water quality treatment basin.

Implementation of the proposed project would decrease the impervious surface area on the project site by approximately 40 percent, which would be expected to decrease the volume stormwater runoff generated within the project site. As specified in RCM HYD-4, detailed in Section 4.14, Hydrology and Water Quality, a Final Hydrology Report would be approved by the County Department of Public Works and would demonstrate that on-site drainage facilities are designed and adequately sized to convey and reduce runoff such that on-site and off-site drainage capacity would not be exceeded in a design storm. RCM HYD-4 represents adherence to local and state regulations or laws that serve to reduce impacts related to hydrology. With implementation of RCM HYD-4, the proposed project would not exceed the capacity of downstream drainage facilities or cause the expansion of existing facilities, aside from the laterals and treatment basin within the Campus discussed above. As such, the proposed project would not require or result in the construction of new stormwater drainage facilities or the expansion of existing facilities beyond the improvements included as part of the proposed project. Therefore, impacts to stormwater drainage facilities would be less than significant with the incorporation of RCM HYD-4. No mitigation is required.

Electric Power. Electric power is provided to the project site by Southern California Edison (SCE). SCE services approximately 15 million people across its 50,000-square mile service area.[75] According to the California Energy Commission (CEC), total electricity consumption in the SCE service area in 2022 was approximately 85,870 gigawatt-hours (GWh).[76] Total electricity consumption in Orange County in 2022 was approximately 20,244 GWh.[77] Refer to Section 4.10, Energy, of this IS/MND for further discussion related to the project's impacts with respect to existing and projected supplies of electricity. As stated in Section 4.10, the proposed project would not result in the wasteful, inefficient, or unnecessary consumption of fuel or energy and would incorporate renewable energy or energy efficiency measures into building design, equipment uses, and transportation, which would help reduce the electricity demand of the proposed project.

[75] Southern California Edison. About Us. Website: https://www.sce.com/about-us (accessed October 22, 2024).

[76] California Electricity Commission (CEC). 2022. Electricity Consumption by Entity. Website: http://www.ecdms.energy.ca.gov/elecbyutil.aspx (accessed October 22, 2024).

[77] California Electricity Commission (CEC). 2022. Electricity Consumption by County. Website: http://www.ecdms.energy.ca.gov/elecbycounty.aspx (accessed October 22, 2024).

The project site is developed with the existing Campus and is served by existing electrical infrastructure. The proposed demolition of ten buildings within the project site would leave some electrical infrastructure available to connect to the new proposed structures. In some cases, underground electrical lines would need to be rerouted to serve a proposed building site. The proposed project would upgrade and relocate electrical facilities within the site to serve the new facility locations and needs. In addition, a new transformer would be established just outside the site's security perimeter in order to provide access to SCE employees. In addition, a main electrical room would be established within a central location of the project site in order to ensure the efficient distribution of electricity throughout the site. In addition, a new 100 kW diesel powered emergency generator would be installed, which would have the fuel capacity to allow the facility to operate for 72 hours in the event of a power outage, in a manner consistent with legal requirements that the facility remains secure and operational and does not create a potential public safety issue.

CalEEMod Version 2022.1.1.28 was used to calculate the approximate annual electricity demand of the proposed project. Based on the CalEEMod outputs, the estimated electricity demand associated with the operation of the proposed project is 870,183 kilowatt-hours (kWh) per year. This would represent approximately 0.0043 percent of the total electricity consumption in Orange County in 2022[78] and 0.0010 percent of the total electricity consumption in the SCE service area in 2022.[79] The proposed project's electricity demand would be minimal compared to overall regional and service area consumption.

The proposed project would comply with the California Green Building Standards Code (California Code of Regulations, Title 24). Additionally, the proposed project would be required to adhere to all federal, State, and local requirements for energy efficiency, which would substantially reduce electricity usage. Because the proposed project would replace existing development that generates energy demand, would represent a small fraction of electricity demand within the region and service area, and would meet Title 24 requirements, the proposed project would not necessitate the construction of new or expanded electric power facilities that could cause a significant environmental impact. Impacts would be less than significant, and no mitigation is required.

Natural Gas. The natural gas service provider for the project site is the Southern California Gas Company (SoCal Gas). SoCal Gas provides natural gas services to approximately 21.1 million consumers across 24,000 square miles.[80] According to the CEC, total natural gas consumption in the SoCal Gas service area in 2022 was approximately 5,027 million therms (MMBtu).[81] Total natural gas consumption in Orange County in 2022 was approximately 573 MMBtu.[82] Refer to Section 4.10, Energy, of this IS/MND for further discussion related to the project's impacts with respect to existing and projected supplies of natural gas.

The project site is already developed with the Campus and is therefore served by existing natural gas connections. However, these connections rerouted or replaced in order to serve the reconfigured layout of the project site under the proposed project. As such, the proposed project would upgrade and relocate natural gas facilities within the site to serve the new facility locations and needs. Natural gas would solely

[78] 870,183 / 20,243,721,856 = 0.000043 * 100 = 0.0043 percent

[79] 870,183 / 85,870,000,000 = 0.000010 * 100 = 0.0010 percent

[80] Southern California Gas Company (SoCal Gas). About Us. Website: https://www.socalgas.com/about-us (accessed October 22, 2024).

[81] California Electricity Commission (CEC). 2022b. Gas Consumption by Entity. Website: http://www.ecdms.energy.ca.gov/gasbyutil.aspx (accessed October 22, 2024).

[82] California Electricity Commission (CEC). 2022a. Gas Consumption by County. Website: http://www.ecdms.energy.ca.gov/gasbycounty.aspx (accessed October 22, 2024).

be used for cooking, including culinary training, within the proposed buildings. All heating and cooling equipment within the proposed facilities would be electric and would not utilize natural gas. As such, natural gas usage would be limited under the proposed project.

CalEEMod Version 2022.1.1.28 was used to calculate the approximate annual natural gas demand of the proposed project. Based on the CalEEMod outputs, the estimated potential natural gas demand associated with the operation of the proposed project is 5,116 thousand BTU (kBTU) per year. This would represent approximately 0.89 percent of the total natural gas consumption in Orange County in 2022[83] and 0.10 percent of the total natural gas consumption in the SCE service area in 2022.[84] As such, the proposed project's electricity demand would be insignificant in the context of the overall regional and service area context and would not necessitate the construction of new large-scale natural gas infrastructure.

Because the proposed project would limit natural gas usage to culinary purposes and would replace existing development that already utilizes natural gas, the proposed project would not necessitate the construction of new or expanded natural gas facilities that could cause a significant environmental impact. Impacts would be less than significant, and no mitigation is required.

Telecommunications. Cable, internet, and telephone services are provided to the City's residents by major third-party purveyors. Cellular service available in the City is provided by all major cellular networks, including the project site. The project site is currently served by telecommunications services. Given the secure nature of the project site, resident youth would have limited access to telecommunication services. Regulated access to landline telephones and video conferencing would be allowed, primarily for the purposes of visitation, education, and court proceedings. A majority of telecommunications activity at the project site is undertaken by staff and visitors, who have access to their personal telecommunication devices, However, usage of these devices may be restricted on parts of the Campus. The proposed project would replace existing uses on the project site, and would slightly increase the residency capacity within the Campus in order to accommodate TAY and youths living independently. However, this increase would not substantially increase demand for telecommunications services within the project site. Therefore, the proposed project would not necessitate the construction of new or expanded telecommunications facilities that could cause a significant environmental impact. Impacts would be less than significant, and no mitigation is required.

Summary. As the proposed project would replace existing uses on-site, the supply and distribution network of utilities and service systems would generally remain unchanged, with the exception of minor connections to existing infrastructure serving the site. The water, wastewater, stormwater drainage, natural gas, electricity, and telecommunications demands generated by the proposed project would not exceed existing supply or service capacities. Levels of service to users in the surrounding community would not be adversely affected. Effects related to utility improvements and connections proposed as part of the project would be less than significant with compliance to applicable regulations and standards, including landscape irrigation standards required under RCM UTL-1. No project-specific mitigation is required.

[83] 5,116,000 / 573,000,000 = 0.0089 * 100 = 0.89 percent
[84] 5,116,000 / 5,027,000,000 = 0.0010 * 100 = 0.10 percent

Question 4.23 b): Have sufficient water supplies available to serve the project and reasonably foreseeable future development during normal, dry, and multiple dry years?

Response to Question 4.23 b):

Less than Significant Impact. The project site is currently developed with the Campus, which generates water demand typical of an institution of its scale. Water is supplied to the project site by the City of Orange Water Division via groundwater supplies from OCWD or imported or surface water via MWDOC.

According to the City's 2020 UWMP, the City's projected water supply is able to meet projected water demands for the years 2025 through 2045 during normal years, single dry years, and multiple dry years. In 2020, the City's actual water supply was 26,993 af.[85] At the time of the preparation of the 2020 UWMP, the projected 2025 water supply is approximately 27,233 af. By 2045, the total projected water supply is approximately 28,077 af, marking an increase in supply between 2025 and 2045. Although projected water supplies increase incrementally, projected water demand also increases incrementally. In 2020, the actual water demand was 26,993 af. The total projected water demand in 2025 is approximately 27,233 af annually. In 2045, the total projected water demand is approximately 28,077 af annually, with demand totals increasing between 2025 and 2045.[86]

As discussed in the Response to Question 4.23 b), the proposed project would generate a water demand of approximately 17,552 gpd. This demand would be considered negligible compared to overall water supply and demand within the region and the City of Orange. Furthermore, the proposed project's design would incorporate low-flow water fixtures wherever possible in compliance with the CALGreen Code and would be compliant with the City's Water Efficient Landscape Ordinance pursuant to RCM UTL-1.

Based on the proposed project's relatively minor contribution to regional and service area water demand and the various water conservation measures to be incorporated into the project's design, water demand generated by the proposed project would be adequately served by the City's Water Division's current and projected water supplies during normal, dry, and multiple dry years. Impacts related to water supplies would be less than significant, and no mitigation is required.

Question 4.23 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?

Response to Question 4.23 c):

Less than Significant Impact. As stated in Response to Question a), wastewater generated at the project site is collected, treated, and disposed of by OCSD. As the proposed project would replace existing uses on-site, a substantial increase in wastewater generation within the project site is not anticipated. Furthermore, other than the installation of new 4-inch sewer lateral connections between the proposed new buildings and the existing 10-inch mainline sewer system, the proposed project would not require, nor would it result in, the construction or relocation of new or expanded wastewater treatment or

[85] City of Orange. 2021. *2020 Urban Water Management Plan Final,* November 2021. Website: https://www.cityoforange.org/home/showpublisheddocument/1540/637873464981170000 (accessed October 22, 2024).

[86] City of Orange. 2021. *2020 Urban Water Management Plan Final,* November 2021. Website: https://www.cityoforange.org/home/showpublisheddocument/1540/637873464981170000 (accessed October 22, 2024).

collection facilities. It is anticipated that this existing mainline sewer system would be capable of conveying the flows generated by the proposed project.

Wastewater generated at the project site would be conveyed to OCSD Reclamation Plant No. 1 in Fountain Valley. As previously discussed, Reclamation Plant No. 1 currently operates below capacity and would therefore have the ability to process wastewater generated by the proposed project without exceeding wastewater treatment requirements. Therefore, the proposed project's impacts related to wastewater generation are less than significant, and no mitigation would be required.

Question 4.23 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?

Response to Question 4.23 d):

Less than Significant Impact.

Construction. As previously stated, the proposed project would involve the demolition of approximately 95,589 sf of existing structures. This would result in the generation of demolition waste, largely consisting of the building materials comprising these materials. OCWR operates a Construction & Demolition (C&D) Program, which requires certain construction projects to divert 65 percent of construction and demolition waste away from landfills.[87] The proposed project would be subject to the C&D Program.

OCWR provides a list of agency-approved haulers and diversion facilities[88] available to transport and process materials waste from construction projects within the County. Pursuant to the C&D Program, demolition waste from the proposed project would be hauled and processed by the approved companies in order to achieve the mandatory 65 percent diversion rate. In addition, as part of the C&D Program, the project Applicant shall prepare a Compliance Work Plan, and a Final Compliance Report to be submitted to OCWR upon completion of the proposed project's construction. These documents would assist OCWR in confirming that the proposed project has satisfied the 65 percent construction and demolition waste diversion requirement. Upon satisfaction of this requirement, construction of the proposed project would not generate waste in excess of State or local standards, or in excess of the capacity of local infrastructure. Impacts would be less than significant, and no mitigation is required.

Operation. Solid waste disposal needs from operations of the existing Campus buildings are served by Waste Management (WM) of Orange County via daily pickups at the Manchester Complex, excluding Sundays. WM provides solid waste, green waste, and recyclable materials hauling services to the County. Waste collected from the project site by WM is ultimately disposed of at one of the three landfills within the OCWR system. These include the Frank R. Bowerman Landfill in the City of Irvine, which accepts commercial waste only; the Olinda Alpha Landfill in the City of Brea, which accepts both public and commercial waste; and the Prima Deshecha Landfill in the City of San Juan Capistrano, which also accepts both public and commercial waste. All three landfills are categorized as Class III landfills and only accept

[87] OC Waste & Recycling (OCWR). n.d. Construction & Demolition (C&D) Program. Website: https://www.oclandfills.com/CD (accessed November 11, 2024).

[88] OC Waste & Recycling (OCWR). 2024. C&D Debris Diversion Approved Facilities and Franchise Waste Haulers, September. Website: https://oclandfills.com/sites/ocwr/files/2024-10/Final%20C%26D%20Approved%20Facilities%20-%20revised%2009.2024.pdf (accessed November 11, 2024).

non-hazardous municipal solid waste.[89] In 2019, approximately 3,013,489 tons of solid waste were disposed of between the County's three landfills.[90]

Because the Frank R. Bowerman Landfill is dedicated solely to commercial waste, this landfill would not accept waste generated by the proposed project. Solid waste hauled from the project site would ultimately end up at either the Olinda Alpha Landfill or the Prima Deshecha Landfill. The Olinda Alpha Landfill has a maximum daily capacity of 8,000 tons per day (tpd), although the average disposal rate at this landfill is closer to 7,000 tpd. This facility is projected to operate sufficiently until the year 2035.[91] The Prima Deshecha Landfill has a maximum daily capacity of 4,000 tpd, though the site averages approximately 1,400 tpd. This facility is projected to operate through the year 2102.[92] As such, both landfills that could potentially serve the waste disposal needs of the proposed project are currently accepting waste at below-capacity levels. The County of Orange adopted an updated Countywide Integrated Waste Management Plan (CIWMP) in 2021,[93] which includes a Siting Element (SE). The SE demonstrates that the County has at least 15 years of landfill capacity to dispose of non-diverted waste and also sets forth procedures for selecting potential new landfill locations. As such, the County is consistently evaluating its landfills with respect to current and future capacity, and this evaluation has not identified any potential capacity issues that could be exacerbated by the proposed project.

According to the CalEEMod output for the proposed project (Appendix A), It is anticipated that the proposed project would generate 239.9 cubic yards of solid waste annually. The proposed project would replace existing waste-generating land uses and would not substantially increase solid waste generation within the project site beyond a volume that can be adequately processed by existing regional infrastructure. Based on the daily capacities and long-term operational projections of the landfills potentially serving the project site, solid waste generated during operations of the proposed project would represent a negligible contribution to the daily and long-term capacities of solid waste processed at these facilities. The proposed project would not generate solid waste in excess of State or local standards, or in excess of the capacity of local or regional infrastructure. Therefore, the project would result in a less than significant impact to solid waste and landfill facilities, and no mitigation would be required.

Question 4.23 e): Comply with federal, state, and local management and reduction statutes and regulations related to solid waste?

Response to Question 4.23 e):

Less than Significant Impact. The California Integrated Waste Management Act of 1989 (AB 939) changed the focus of solid waste management from landfill to diversion strategies (e.g., source reduction, recycling, and composting). The purpose of the diversion strategies is to reduce dependence on landfills for solid waste disposal. AB 939 established mandatory diversion goals of 25 percent by 1995 and 50 percent by 2000.

[89] County of Orange General Plan Public Services & Facilities Element. 2004. Website: https://ocds.ocpublicworks.com/sites/ocpwocds/files/import/data/files/59953.pdf (accessed October 22, 2024).

[90] County of Orange Waste & Recycling (OCWR). 2021. Countywide Integrated Waste Management Plan. March. Website: https://oclandfills.com/sites/ocwr/files/2024-09/2021%20CIWMP%20Final.pdf (accessed October 22, 2024).

[91] Ibid.

[92] Ibid.

[93] County of Orange Waste & Recycling (OCWR). 2021. Countywide Integrated Waste Management Plan. March. Website: https://oclandfills.com/sites/ocwr/files/2024-09/2021%20CIWMP%20Final.pdf (accessed October 22, 2024).

AB 341 (2011) amended the California Integrated Waste Management Act of 1989 to include a provision declaring that it is the policy goal of the State that not less than 75 percent of solid waste generated be source-reduced, recycled, or composted by the year 2020 and annually thereafter. In addition, AB 341 required the California Department of Resources Recycling and Recovery (CalRecycle) to develop strategies to achieve the State's policy goal. CalRecycle has conducted multiple workshops and published documents that identify priority strategies to assist the State in reaching the 75 percent goal by 2020.

SB 1383 (2016) establishes methane emissions reduction targets in a statewide effort to reduce emissions of short-lived climate pollutants (SLCP) in various sectors of the State economy. SB 1383 establishes the following targets to reduce the 2014 statewide level of organic waste that is disposed of: divert and recycle at least 50 percent of all organic waste materials currently disposed at solid waste landfills by January 1, 2020, and at least 75 percent by January 1, 2025. CalRecycle has the regulatory authority required to achieve the organic waste disposal reduction targets and establishes an additional target, which is that no less than 20 percent of currently disposed edible food should be recovered for human consumption by 2025.

As discussed above in Response to Question d), the County of Orange adopted the CIWMP in 2021. In addition to the SE, the CIWMP also contains a Summary Plan (SP). The SP discusses procedures for each jurisdiction within the County to comply with applicable AB 939 mandates. Further, the proposed project would be consistent with all applicable goals and policies related to waste management included in the City of Orange General Plan Infrastructure Element[94] and the County of Orange General Plan Public Services & Facilities Element,[95] both of which account for the applicable federal, state, and local waste regulations in effect at the time each document was prepared (2015 and 2005, respectively). The waste generated by the proposed project would not substantially alter diversion rates and would be incorporated into the regional waste stream, which is diverted in accordance with relevant legislature.

The proposed project would comply with all applicable standards related to solid waste diversion, reduction, and recycling during project construction and operation. Therefore, the proposed project is anticipated to result in less than significant impacts related to potential conflicts with federal, State, and local management and reduction statutes and regulations pertaining to solid waste, and no mitigation would be required.

[94] City of Orange. 2015. General Plan Infrastructure Element. December. Website: https://www.cityoforange.org/home/showpublisheddocument/204/637698172548000000 (accessed October 21, 2024).

[95] County of Orange. 2004. General Plan Public Services & Facilities Element. Website: https://ocds.ocpublicworks.com/sites/ocpwocds/files/import/data/files/59953.pdf (accessed October 22, 2024).

4.24 *Wildfire*

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

Question 4.24 a): Substantially impair an adopted emergency response plan or emergency evacuation plan?

Response to Question 4.24 a):

Less than Significant Impact. The California Department of Forestry and Fire Protection (CAL FIRE) maps areas of significant fire hazards in the State through its Fire and Resources Assessment Program (FRAP). These maps place areas of California into different fire hazard severity zones (FHSZ), based on a complex hazard scoring system. CAL FIRE currently identifies the project site, and the City of Orange in its entirety, as a Local Responsibility Area (LRA), in which local fire protection agencies are responsible for wildfires that occur within the area.

According to CAL FIRE's Fire Hazard Severity Zones in State Responsibility Area Viewer,[96] the project site is not located within a Very High Fire Hazard Severity Zone (VHFHSZ) or a State Responsibility Area (SRA). There are no areas designated as VHFHSZ in the vicinity of the project site. The project site is located within an urbanized area where wildfire is not considered a likely risk to people or structures. In the event of a fire emergency, Orange City Fire Department Station #6 is located approximately 600 ft west of the project site at 345 The City Drive South, meaning the fire response time to the project site would be substantially shorter than average Orange City Fire Department response times.

Local access to the project site would be provided by The City Drive, which runs in a north-south orientation and is classified as a Principal Arterial roadway in the City's General Plan Circulation and Mobility Element, meaning it is an eight-lane divided roadway.[97] The project site is bound to the north by the existing Service Way South Roadway and to the south by the existing Justice Center Way roadway, both of which run in an east-west direction. The Justice Center Way roadway's eastern edge transitions into Sidwell Way, which curves along the project site and marks its eastern boundary. Fire access to the project site would be provided either by an entry point along Sidwell Way or along Service Way South. Service Way South, Justice Center Way, and Sidwell Way are all accessed either directly or indirectly via The City Drive. According to Figure PS-4, Generalized Evacuation Corridors, of the City's Public Safety Element,[98] The City Drive is designated as an evacuation corridor within the City. However, as noted by the City's Emergency Operations Plan, evacuation routes for emergency situations are contingent upon the scale and location of the emergency and would change depending on the direction of evacuation required by the situation.

Furthermore, the project site is separated from The City Drive by approximately 600 ft and several intervening structures parking structures, surface parking lots, and the Lamoreaux Justice Center. The project does not propose any improvements to The City Drive and would not result in any closures to The City Drive during the construction period. All equipment associated with construction of the proposed project would be staged within the project site itself and would not interfere with operations of The City Drive under normal or emergency circumstances.

The proposed project does not include any characteristics (e.g., permanent road closures or long-term blocking of road access) that would physically impair or otherwise conflict with an emergency response plan or emergency evacuation plan.

As discussed in Section 4.21, Transportation, of this IS/MND, the proposed project would not result in a substantial increase in vehicles traveling along The City Drive. Therefore, operations of the proposed project would not introduce congestion along a designated evacuation route, and would not interfere with an established emergency plan.

The City of Orange Fire Department is the reviewing fire agency for the proposed project, as delegated by the State Fire Marshall, for the fire safety design of the proposed structures and access roads. Therefore, the proposed project would be reviewed and approved by the Orange City Fire Department (Fire

[96] California Department of Forestry and Fire Protection (CAL FIRE). 2022. Fire Hazard Severity Zones in State Responsibility Area Viewer. Website: https://calfire-forestry.maps.arcgis.com/apps/webappviewer/index.html?id=988d431a42b242b29d89597ab693d008 (accessed July October 17, 2024).

[97] City of Orange. 2015. City of Orange General Plan Circulation and Mobility Element. December. Website: https://www.cityoforange.org/home/showpublisheddocument/192/637698172525970000 (accessed October 17, 2024).

[98] City of Orange. 2015. City of Orange General Plan Public Safety Element. Website: https://www.cityoforange.org/home/showpublisheddocument/214/637698172567530000 (accessed October 17, 2024).

Department) as part of the design review process to ensure compliance with all applicable codes and ordinances for emergency vehicle access. Therefore, because the project site is not identified by CAL FIRE as facing wildfire risks and the Fire Department would review site access plans for the proposed project, impacts of the proposed project to emergency response and evacuation plans would be less than significant.

Question 4.24 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?

Response to Question 4.24 b):

No Impact. As stated in the Response to Question 4.24 a) above, the project site is not within a VHFHSZ or a SRA as designated by CAL FIRE. The project site is fully developed with the existing Campus and is located in an urbanized portion of the City of Orange, surrounded by existing development. Therefore, the project site faces little to no wildfire risk. As discussed in Section 4.11, Geology and Soils, of this IS/MND, the project site is relatively flat and slopes gently from 0.5 percent to 2.0 percent to the southwest. The proposed project would not introduce any new features to the project site that would exacerbate wildfire risk. Accordingly, the proposed project would have no impact related to pollutants from wildfire or spread of wildfire.

Question 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?

Response to Question 4.24 c):

No Impact. As previously discussed, the project site is located within an urbanized area of the City of Orange and is not located in a VHFHSZ or an SRA as designated by CAL FIRE. Therefore, the project site faces minimal wildfire risks.

The project site is developed with the existing Campus, which includes various buildings, landscape, hardscape, and associated utility infrastructure. While the proposed project would include the establishment of new utility connections to serve the proposed structures, the proposed project would not result in any large-scale infrastructure installation or maintenance that would place the project site at greater risk of wildfire. Therefore, the proposed project would have no impact related to exacerbated wildfire risks.

Question 4.24 d): Expose people or structures to significant risks, including downslope or downstream flooding or landslides, as a result of runoff, post-fire slope instability, or drainage changes?

Response to Question 4.24 d):

No Impact. As previously discussed, the project site is located within an urbanized area of the City of Orange and is not located in a VHFHSZ or an SRA as designated by CAL FIRE. Therefore, the project site faces little to no wildfire risk, and post-fire conditions are not a concern for the project site. The proposed project does not propose any land use changes within the project site that would include any features that would increase the exposure of people or structures to post-fire risks. Accordingly, the proposed project would have no impact related to post-fire risk conditions.

4.25 *Mandatory Findings of Significance*

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

Question 4.25 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?

Response to Question 4.25 a):

Less Than Significant with Mitigation Incorporated. Based on the discussion in Section 4.8, Biological Resources, the proposed project is anticipated to result in less than significant impacts related to habitat, wildlife species, and/or plant and animal communities due to the developed nature of the project site. As such, with adherence to Regulatory Compliance Measures (RCM) BIO-1 through BIO-3, the proposed project would not threaten or eliminate a plant or animal community nor would it substantially reduce the number or restrict the range of a rare or endangered plant or animal.

As discussed in Section 4.9, Cultural Resources, Response to Question a), 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. Further, the project site is not designated as a historical/archaeological landmark by the City of Orange or the County of Orange. Therefore, the proposed project would not cause a substantial adverse change in the significance of a historical resource.

As discussed in Section 4.22, Tribal Cultural Resources, the City requested a search of the Sacred Lands File by the Native American Heritage Commission (NAHC) for the project site. According to NAHC correspondence, no resources were noted in the database. The County did not receive any communication from the two of the four tribes that requested notification regarding the proposed project, pursuant to Assembly Bill (AB) 52. Standard condition measure(s) have been preemptively incorporated into the proposed project that are anticipated to adequately address the concerns of the two Tribes, Gabrieleño Band of Mission Indians – Kizh Nation and Gabrieleno Tongva San Gabriel Band of Mission Indians, regarding the proposed project. As such, Standard Condition (SC) TCR-1 and Regulatory Compliance Measure (RCM) CUL-1 are applicable to the proposed project, and would reduce potential impacts to tribal cultural resources to a less than significant level.

RCM CUL-1 requires cultural resources monitoring during excavation activities and establishes procedures in the event of the discovery of an unknown cultural resource. With implementation of RCM CUL-1, impacts to cultural resources would be less than significant. In addition, Mitigation Measure (MM) GEO-2 has been incorporated to address the discovery of paleontological resources should they be unearthed during construction. With the application of MM GEO-2 potential impacts to previously undiscovered paleontological resources would be less than significant.

For the reasons stated above, the proposed project does not 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. Impacts would be less than significant with implementation of the mitigation measures identified above.

Question 4.25 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)?

Response to Question 4.25 b):

Less than Significant With Mitigation Incorporated. A cumulative impact could occur if the proposed project would result in an incrementally considerable contribution to a significant cumulative impact in consideration of past, present and reasonably foreseeable future projects for each resource area discussed in this IS/MND. Because physical impacts of the proposed project are generally construction related, the cumulative study area is confined to the general vicinity of the proposed project, including locations that could reasonably utilize the same hauling routes for construction waste. Table 4.25.A below provides a summary of related projects in the vicinity of the project site, which are used in the cumulative impact analysis.

Table 4.25.A: Related Projects

Project	Location	Description	Status
County of Orange			
Adult Workforce Reentry Center	561 The City Drive South	Construction of an approximately 36,000 sf, two-story vocational/operations building, an approximately 16,000 sf, one-story retail/culinary building, and an approximately 26,000 sf, two-story housing building, and associated outdoor parking and improvements. The project is intended to provide a training warehouse, classrooms and offices, training and production kitchen, and on-site housing for approximately 50 individuals.	A pre-development agreement and ordinance to authorize contracts for the development and operation of a Workforce Reentry Center was approved on June 6, 2025. Construction of the project is anticipated to begin in late 2027 or early 2028.
City of Orange			
Watermarke Orange	625 The City Drive South	Demolition of an existing four-story office building and surface parking lot in order to construct a new multi-family apartment building containing a total of 401 units with shared amenities (21 units would be reserved for very low-income households). The new building would be five-stories tall and configured around a multi-level parking structure with 717 parking stalls.	In development of CEQA documentation and project design.
Marks Way Orange	164 S Marks Way	Demolition of existing buildings and construction of a new 50-unit affordable senior apartment building, surface parking, and related site improvements.	In development of CEQA documentation and project design.

Sources: OC Public Works, Development Services/Planning (2024); City of Orange, Community Development Department, Planning Division (2024).
sf = square foot/feet

As shown above in Table 4.25.A, there are several other projects planned within the regional vicinity of the project site in the County of Orange, and cities of Orange, Garden Grove, and Santa Ana. Some of these projects involve demolition activities that may overlap with the timeline of demolition activities under the proposed project. As previously stated, a cumulative impact could occur if multiple projects contribute haul truck trips to the same regional arterial roadways. However, hauling routes for each project listed in Table 4.25.A, as well as the proposed project, are not necessarily known at this time and may be subject to change based on transportation patterns within the City of Orange. While these projects

could utilize the same major corridors that provide connectivity across Orange, Garden Grove, and Santa Ana, these roadways are generally designed to accommodate a higher volume of vehicle traffic that could include haul truck trips. As such, the potential overlap between the construction period of the proposed project and that of the various projects listed in Table 4.25.A is not anticipated to result in cumulatively considerable impacts.

The project site is located in an urbanized area that is predominantly built-out with various commercial and residential uses. Further, the proposed project would replace existing facilities within the project site with similar yet improved facilities. The proposed project would rely on and can be accommodated by the existing road system, public services, and large-scale utility infrastructure. Based on the Project Description and the conclusions reached throughout Chapter 4 of this IS/MND regarding each individual environmental factor, impacts related to the proposed project are less than significant or can be reduced to less than significant levels with the incorporation of mitigation measures. Because all potentially significant impacts can be mitigated to a less than significant level, such impacts would not be cumulatively significant. The proposed project's contribution to any significant cumulative impacts would therefore be less than cumulatively considerable with incorporation of the various mitigation measures prescribed within the IS/MND.

Question 4.25 c): Does the project have environmental effects which will cause substantial adverse effects on human beings, either directly or indirectly?

Response to Question 4.25 c):

Less than Significant With Mitigation Incorporated. Previous sections of this IS/MND reviewed the proposed project's potential impacts, and regulatory compliance/mitigation measures related to Biological Resources (MMs BIO-1 through BIO-3 and RCM BIO-3), Cultural Resources (MMs CUL-1 and CUL-2 and RCM CUL-1), Geology and Soils (MMs GEO-1 and GEO-2), Hazards and Hazardous Materials (MM HAZ-1), Hydrology and Water Quality (RCMs HYD-1 through HYD-4), Noise (MM N-1 and RCMs N-1 through N-3), Tribal Cultural Resources (SC TCR-1), and Utilities and Service Systems (RCM UTL-1). As concluded in these previous discussions, the proposed project would result in less than significant environmental impacts with adherence to the Regulatory Compliance Measures and implementation of the recommended Mitigation Measures. Therefore, the proposed project would not result in environmental impacts that would cause substantial adverse effects on human beings.

Chapter 5: Mitigation Measures, Regulatory Compliance Measures, and Standard Conditions

5.1 Biological Resources

RCM BIO-1 **Migratory Bird Treaty Act.** In order to avoid potential impacts to nesting birds that are protected under the Migratory Bird Treaty Act (MBTA) and the California Fish and Game Code, vegetation clearing or construction activities that impact or encroach upon existing vegetation shall be conducted outside the general bird nesting season (February 15 through August 31). If construction occurs during the nesting season, a preconstruction nesting bird survey shall be conducted by a qualified biologist within 3 days prior to vegetation removal or at the beginning of construction activities. If a nest with eggs or young of any species covered under the MBTA or the California Fish and Game Code is found, work shall not be permitted within a buffer distance to be determined by the qualified biologist involved. Commencing project construction activities, including vegetation clearing, outside of the primary nesting season for birds reduces the need for preconstruction nesting bird surveys.

RCM BIO-2 **Roosting Bat Protection Measures.** In the event that any of the trees identified as containing potential roosting habitat within the Biological Resources Assessment (November 2024) prepared for the proposed project are removed during project construction activities, the construction contractor shall ensure that the trees are removed in two phases. During the first phase, the tree limbs shall be removed leaving the main trunk of the tree. This action will create disturbance resulting in the bats leaving the tree that evening and not returning. The following day, the remainder of the tree can be removed.

RCM BIO-3 **Tree Preservation Permit.** Consistent with Section 7-9-69.4 of the County of Orange Municipal Code, a Tree Preservation Permit application shall be required and submitted to the Deputy Director of Orange County Development Services, or designee, prior to removal of the singular California sycamore tree that was observed in the northern-central portion of the project site, or obtained prior to any encroachment into the Tree Protection Zone. The application, as a whole, shall be reviewed and approved by the County of Orange Director of Public Works, or designee. The project Applicant shall adhere to any instructions provided by the Deputy Director of Orange County Development Services, or designee, regarding Replacement Trees.

5.2 Cultural Resources

MM CUL-1 **Cultural Resources Sensitivity Training**. Prior to ground disturbing activities, a qualified archaeologist shall conduct a pre-grading meeting with contractors and construction personnel to provide cultural resources sensitivity training for all construction personnel. The training shall describe the type of resources that may be identified, procedures to be followed during ground disturbance, and protocols that apply in the event that unanticipated resources are discovered. The crew shall be cautioned not to collect artifacts and directed to inform a construction supervisor and the on-site archaeological monitor in the event that cultural remains are discovered during the course of construction, including if a cultural resources monitor is not present. A qualified

archaeologist is someone who either meets the Secretary of the Interior's Professional Qualification Standards for archaeology (48 Federal Register 44738) and is a Registered Professional Archaeologist or has a Bachelor of Arts in archaeology or a closely related field and is a Registered Archaeologist.

MM CUL-2 **Inadvertent Archaeological Discoveries.** In the event that any cultural resources are encountered during earthmoving activities, all work within 50 feet of the find shall be halted until a qualified archaeologist can evaluate the findings and make recommendations. The archaeologist may evaluate the find in accordance with federal, State, and local guidelines, including those set forth in the California Public Resources Code Section 21083.2, to assess the significance of the find and identify avoidance or other measures as appropriate. If suspected prehistoric or historical archaeological deposits are discovered during construction, all work within the immediate area of the discovery shall be redirected and the find must be evaluated for significance by a qualified archaeologist meeting the Secretary of the Interior's Professional Qualifications Standards for archaeology (National Park Service 1983).

RCM CUL-1 **Human Remains.** In the event that human remains are encountered on the project site, work within 50 feet of the discovery shall be redirected and the County of Orange (County) Coroner 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. If the remains are determined to be Native American, the County Coroner shall notify the Native American Heritage Commission (NAHC), which shall determine and notify a Most Likely Descendant (MLD). With the permission of the property owner, the MLD may inspect the site of the discovery. The MLD shall complete the inspection within 48 hours of notification by the NAHC. The MLD may recommend scientific removal and non-destructive analysis of human remains and items associated with Native American burials. Consistent with CCR Section 15064.5(d), if the remains are determined to be Native American and an MLD is notified, the County shall consult with the MLD as identified by the NAHC to develop an agreement for treatment and disposition of the remains. Prior to the issuance of grading permits, the County of Orange (County) Public Works Department, 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.

5.3 Geology and Soils

MM GEO-1 **Compliance with the Recommendations in the Geotechnical Investigation.** Prior to the issuance of demolition or grading permits, the County of Orange (County) Public Works Department shall verify that requirements and recommendations in the Geotechnical Investigation have been appropriately incorporated into the project plans. All grading operations and construction shall be conducted in conformance with all of the recommendations included in the Geotechnical Investigation, which was prepared by Geocon West, Inc., titled *Geotechnical Investigation Orange County Youth Transition Center Project (OC YTC)* (Geotechnical Investigation) (March 15, 2024) as well as any subsequent Geotechnical Reports prepared for the project. All recommendations found

in the Geotechnical Investigation shall be incorporated into project design and shall include, but not be limited to:

- Seismic design recommendations
- Foundation design recommendations
- Lateral design recommendations
- Preliminary pavement recommendations
- Grading recommendations
- Construction considerations

Additional site construction plans, including grading plans, shall be reviewed by the project Geotechnical Consultant prior to construction to check for conformance with all of the recommendations of the Geotechnical Investigation. Design, grading, and construction shall be performed in accordance with the requirements of the applicable seismic standards identified in the Geotechnical Investigation, as well as the recommendations of the project Geotechnical Consultant as summarized in the Geotechnical Investigation subject to review by the Orange County Public Works, prior to the start of grading activities.

MM GEO-2 **Paleontological Resources.** Prior to the commencement of ground-disturbing activities, a qualified, professional paleontologist who meets the standards set by the Society of Vertebrate Paleontology (SVP) shall be retained to develop a Paleontological Resources Impact Mitigation Program (PRIMP) for this project. The PRIMP shall be consistent with the guidelines of the SVP and shall include the methods that will be used to protect paleontological resources that may exist within the project limits, as well as procedures for monitoring, fossil preparation and identification, curation into a repository, and preparation of a report at the conclusion of ground disturbance.

If ground-disturbing activities occur in deposits with high paleontological sensitivity (i.e., Young Alluvial Fan Deposits below a depth of 10 feet), those activities shall be monitored by a qualified paleontological monitor following the PRIMP. If paleontological resources are encountered during the course of ground disturbance, the paleontological monitor shall have the authority to temporarily redirect construction away from the area of the find in order to assess its significance. Once soils have been monitored during the excavation stage and determined to lack the presence of paleontological resources, monitoring of these soils would no longer be necessary for the remainder of grading activities. In the event that paleontological resources are encountered when a paleontological monitor is not present, work in the immediate area of the find shall be redirected and the paleontologist or paleontological monitor shall be contacted to assess the find for scientific significance. If determined to be scientifically significant, the fossil shall be collected from the field.

Collected resources shall be prepared to the point of identification, identified to the lowest taxonomic level possible, cataloged, and curated into the permanent collections of a museum repository. At the conclusion of the monitoring program, a report of findings shall be prepared to document the results of the monitoring program.

5.4 Hazards and Hazardous Materials

MM HAZ-1 **Compliance with the Recommendations in the Asbestos Survey Reports.** Prior to and during demolition, a State of California Licensed Abatement Contractor shall perform removal of all asbestos containing materials. Removal of Asbestos Containing Materials shall be conducted in accordance with U.S. Environmental Protection Agency (USEPA) and Occupational Safety and Health Administration (OSHA) requirements and federal, State, and local rules and regulations to reduce airborne fiber concentrations. In addition, personal protective equipment and decontaminant methods shall be used by all workers on the project site.

5.5 Hydrology and Water Quality

RCM HYD-1 **Construction General Permit.** Prior to issuance of a grading permit, the project Applicant shall obtain coverage under the State Water Resources Control Board (SWRCB) National Pollutant Discharge Elimination System (NPDES) *General Permit for Stormwater Discharges Associated with Construction and Land Disturbance Activities,* Order No. 2022-0057-DWQ, NPDES No. CAS000002 (Construction General Permit). This shall include submission of Permit Registration Documents (PRDs), including a Notice of Intent for coverage under the permit to the State Water Resources Control Board (SWRCB) via the Stormwater Multiple Application and Report Tracking System (SMARTs). The project Applicant shall provide the Waste Discharge Identification Number (WDID) to the Director of the County of Orange (County) Public Works Department, or designee, to demonstrate proof of coverage under the Construction General Permit. Project construction shall not be initiated until a WDID is received from the SWRCB and is provided to the Director of the County Public Works Department, or designee. A Stormwater Pollution Prevention Plan (SWPPP) shall be prepared and implemented for the proposed project in compliance with the requirements of the Construction General Permit. The SWPPP shall identify construction best management practices (BMPs) to be implemented to ensure that the potential for soil erosion and sedimentation is minimized and to control the discharge of pollutants in stormwater runoff as a result of construction activities. Upon completion of construction and stabilization of the site, a Notice of Termination shall be submitted via SMARTs.

RCM HYD-2 **Groundwater Discharge Permit.** If groundwater dewatering is required during construction of the proposed project, the project Applicant shall submit a Notice of Intent (NOI) for coverage under the permit to the Santa Ana RWQCB at least 60 days prior to the start of excavation activities and anticipated discharge of dewatered groundwater to surface waters in order to obtain coverage under the Waste Discharge Requirements (WDR) Permit for Discharges to Surface Waters That Pose an Insignificant (De Minimis) Threat to Water Quality (Groundwater Discharge Permit) (Order No. R8-2020-0006, NPDES No. CAG998001). Groundwater dewatering activities shall comply with all applicable provisions in the Groundwater Discharge Permit, including water sampling, analysis, treatment (if required), and reporting of dewatering-related discharges. Upon completion of groundwater dewatering activities, a Notice of Termination shall be submitted to the Santa Ana RWQCB.

RCM HYD-3 **MS4 Permit.** Prior to the issuance of grading or building permits, the project Applicant shall submit a Final Water Quality Management Plan (WQMP) to the County of Orange

(County) Public Works Department, or designee, for review and approval in compliance with the requirements of the NPDES *Permit and Waste Discharge Requirements for Discharges from the Municipal Separate Storm Sewer Systems (MS4s) Draining the Watersheds Within the Orange County Region,* Order No. R8-2009-0030, NPDES No. CAS618030 as amended by Order No. R8-2010-0062 (MS4 Permit). The Final WQMP shall be prepared consistent with the requirements of the North Orange County Technical Guidance Document for Water Quality Management Plans (TGD) and the North Orange County Water Quality Management Plan template, or subsequent guidance manuals. The Final WQMP shall specify the BMPs to be incorporated into the project design to target pollutants of concern in runoff from the project area. The County of Orange (County) Public Works Department, or designee, shall ensure that the BMPs specified in the Final WQMP are incorporated into the final project design, and shall implement, maintain and operate all such BMPs in a timely and reasonably diligent manner.

RCM HYD-4 **Final Hydrology Report.** Prior to issuance of a grading permit, the Applicant shall prepare a Final Hydrology Report to demonstrate that the post-construction runoff from the project site does not exceed existing conditions. The project Applicant shall provide the Final Hydrology Report to the County of Orange (County) for review and approval.

5.6 Noise

RCM N-1 **Construction Noise and Vibration.** The construction contractor shall limit construction activities to between the hours of 7:00 a.m. and 8:00 p.m., Monday through Saturday and between the hours of 9:00 a.m. and 8:00 p.m. on Sunday or a federal holiday. Construction is prohibited outside these hours.

RCM N-2 **Final Acoustical Report.** Prior to issuance of any certificates of building permits, the project Applicant shall submit a Final Acoustical Report, prepared by a qualified acoustical consultant, to be reviewed and approved by the City Building Official, or their respective designee. The City Building Official, or their respective designee, shall verify that the Final Acoustical Report demonstrates that all sensitive rooms with exterior façades comply with the City's interior noise standard.

RCM N-3 **Interior Noise.** Provide mechanical ventilation (e.g., an air-conditioning system) to all noise-sensitive rooms to ensure that windows can remain closed for a prolonged period of time.

MM N-1 **Acoustical Memorandum.** Prior to the issuance of the final occupancy permit, a qualified acoustical consultant shall prepare a memorandum to demonstrate that noise from on-site HVAC equipment does not exceed existing ambient noise levels by 3 A-weighted decibels (dBA) at the closest off-site property to the north and south once the details and specifications of the on-site HVAC equipment are determined.

5.7 Tribal Cultural Resources

SC TCR-1 **Unanticipated Discovery of Native American Resources.** If unanticipated archaeological resources or deposits are discovered during ground-disturbing activities, Orange County Public Works (OC Public Works) shall implement the following measures. All work shall halt within a 50-foot radius of the discovery. OC Public Works shall retain a qualified

professional archaeologist with knowledge of Native American resources to assess the significance of the find. If the resources are Native American in origin, OC Public Works shall coordinate with the Tribe regarding evaluation, treatment, curation, and preservation of these resources. The archaeologist shall have the authority to modify the no-work radius as appropriate, using professional judgment in consultation with OC Public Works. Work shall not continue within the no work radius until the archaeologist conducts sufficient research and evidence and data collection to establish that the resource is either: (1) not cultural in origin; or (2) not potentially eligible for listing on the California Register of Historical Resources. If a potentially eligible resource is encountered, then the archaeologist and OC Public Works, as lead agency, in consultation with the Tribe, shall arrange for either: (1) avoidance of the resource, if possible; or (2) test excavations to evaluate eligibility, and if eligible, attempt to resolve adverse effects through implementation of appropriate mitigation, which may include, but shall not be limited to, salvage excavation, laboratory analysis and processing, research, curation, and preparation of a report summarizing the find. The assessment of eligibility shall be formally documented in writing as verification that the provisions in the California Environmental Quality Act for managing unanticipated discoveries and Public Resources Code Section 5024 have been met.

5.8 Utilities and Service Systems

RCM UTL-1 **Orange County Water Efficient Landscape Ordinance.** Prior to the issuance of any grading or building permit, the project Applicant shall prepare and submit a Landscape Plan to the Interim Director of the County of Orange (County) Public Works Department, or designee. The County of Orange (County) Public Works Department, or designee, shall confirm that the Landscape Plan for the proposed project is consistent with all applicable provisions outlined in the County's Landscape Water Efficiency Ordinance, as codified in Ordinance No. 16-002.

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Chapter 7: Report Preparation Personnel

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CALEEMOD OUTPUT SHEETS

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