

**DRAFT INITIAL STUDY AND
MITIGATED NEGATIVE DECLARATION**

**LOS ALAMITOS UNIFIED SCHOOL DISTRICT
LOS ALAMITOS HIGH SCHOOL
MULTISTORY STEM CLASSROOM BUILDING**

Prepared for:



Los Alamitos Unified School District
10652 Reagan Street
Los Alamitos, CA 90720
Attention: C.J. Knowland
Director of Facilities, Maintenance, Operations and Transportation

Prepared by:



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UEI No. 6090

September 2019



PROJECT INFORMATION SHEET

- | | |
|--|---|
| 1. Project Title | Los Alamitos High School Multistory STEM Classroom Building |
| 2. CEQA Lead Agency and Address | Los Alamitos Unified School District
10652 Reagan Street
Los Alamitos, CA 90720 |
| 3. Contact and Phone Number | CJ Knowland, Director of Facilities, Maintenance, Operations and Transportation
(562) 799-4592 x 81116 |
| 4. Project Applicant | Los Alamitos Unified School District |
| 5. Project Location | Los Alamitos High School
3591 W Cerritos Ave, Los Alamitos, CA 90720 |
| 6. Assessor's Parcel Numbers | 242-262-02 and 242-262-07 |
| 7. Project Site General Plan Designation | Community & Institutional |
| 8. Project Site Zoning Designation | C-F Community Facilities |
| 9. Surrounding Land Uses and Setting | Carbon Creek Channel, Coyote Creek Channel, single-family home, commercial uses, and industrial uses. |
| 10. Description of Project | The Los Alamitos Unified School District proposes the construction of a new three-story, approximately 86,528- square-foot STEM classroom building at Los Alamitos High School in the City of Los Alamitos, California. The proposed project would provide new classroom facilities, while removing some of the existing portable classrooms, to provide an enhanced learning experience for students. |
| 11. Selected Agencies whose Approval is Required | <ul style="list-style-type: none">• California Division of the State Architect• California Department of Education |
| 12. Have California Native American tribes traditionally and culturally affiliated with the project area requested consultation pursuant to Public Resources Code § 21080.3.1? If so, has consultation begun? | <p>Letters were sent by the District (the lead agency), to local Native American tribes asking if they wished to participate in AB 52 consultation concerning the Los Alamitos High School Multistory STEM Classroom Building Project in the City of Los Alamitos.</p> <p>Letters were sent by the District (the lead agency), to local Native American tribes asking if they wished to participate in AB 52 consultation concerning the Los Alamitos High School Multistory STEM Classroom Building Project within the City of Los Alamitos. Three tribes had previously informed the District</p> |



of their wish to be consulted: the Gabrielino/Tongva San Gabriel Band of Mission Indians and the Gabrieleno Band of Mission Indians – Kizh Nation, and the Torres Martinez Desert Cahuilla Indians. Five additional tribes were recommended by the NAHC: the Gabrielino-Tongva Tribes, the Juaneño Band of Mission Indians, Acjachemen Nation (Belardes), the Juaneño Band of Mission Indians (Johnson), the Juaneño Band of Mission Indians, Acjachemen Nation (Romero), and the Gabrielino/Tongva Nation. Letters to all eight tribes were sent by the District on May 3, 2019. The tribes are provided up to 30 days in which to respond to this notification. For the proposed project, those tribes that the District received a request for consultation from were contacted per Public Resources Code § 21074, and the AB 52 consultation process has begun.

Tribes have up to 30 days in which to respond to this notification. For the proposed project, those tribes that the District receives a request for consultation from will be contacted per Public Resources Code § 21074, and the AB 52 consultation process will begin. See Section 4.18.

**13. Other Public Agencies
whose Approval is
Required**

Agencies that will review the proposed building include the following:

- California Geological Society
- California Regional Water Quality Control Board – Santa Ana
- South Coast Air Quality Management District
- Orange County Health Department



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ACRONYMS AND ABBREVIATIONS

Acronym/Abbreviation	Term
AADT	annual average daily traffic
AB	Assembly Bill
AB 32	California Global Warming Solutions Act of 2006
AB 939	Zero Waste Program
ADA	Americans with Disabilities Act
ACM(s)	asbestos-containing material(s)
ADT	Average Daily Traffic
AIA	Airport Influence Area
ALUC	Airport Land Use Commission
ALUCP	Airport Land Use Compatibility Plan
amsl	above mean sea level
ANSI	American National Standards Institute
APE	Areas of Potential Effect
AQMP	Air Quality Management Plan
ARB	Air Resources Board
bgs	below the ground surface
BMPs	Best Management Practices
BSA	Biological Survey Area
CAA	Clean Air Act
CAOs	Cleanup and Abatement Orders
CAAQS	California Ambient Air Quality Standards
CalEEMod	California Emissions Estimator Model
CAL FIRE	California Department of Forestry and Fire Protection
CAL Green	California Green Building Standards
Cal-OSHA	California Department of Industrial Relations
CalRecycle	California Department of Resources Recycling and Recovery
Caltrans	California Department of Transportation
CAOs	Cleanup and Abatement Orders
CAPCOA	California Air Pollution Controls Officers Association
CBC	California Building Code
CCAA	California Clean Air Act
CCDs	polychlorinated dioxins
CCR	California Code of Regulations
CDE	California Department of Education
CDFW	California Department of Fish and Wildlife
CDOs	Cease and Desist Orders
CEC	California Energy Commission
CEC	California Energy Commission
CEQA	California Environmental Quality Act
CERCLA	Comprehensive Environmental Response, Compensation, and Liability Act
CERCLIS	Comprehensive Environmental Response, Compensation and Liability Information System
CFCs	Chlorofluorocarbons



Acronym/Abbreviation	Term
cfs	Cube Feet-Per-Second
CGS	California Geological Survey
CH ₄	Methane
CHRIS	California Historic Resources Information System
CIWMP	Countywide Integrated Waste Management Plan
CIWMA	State of California Integrated Waste Management Act of 1989
CMP	Congestion Management Program
CHMIRS	California Hazardous Material Incident Report System
CNDDB	California Natural Diversity Database
CNEL	Community Noise Equivalent Level
CNPS	California Native Plant Society
CO	Carbon Monoxide
CO ₂ e	CO ₂ equivalent
CO ₂	Carbon Dioxide
COPCs	Chemicals of Potential Concern
CPTs	Cone Penetration Tests
CPUC	California Public Utilities Commission
CRECs	controlled recognized environmental conditions
CSSP	Comprehensive Safe School Plan
DAMP	Drainage Area Management Plan
dB	Decibel
dBA	A-weighted decibel scale
District	Los Alamitos Unified School District
DMA(s)	Drainage Management Area(s)
DMG	Division of Mines and Geology
DOC	California Department of Conservation
DOGGR	Division of Oil, Gas and Thermal Resources
DPM	Diesel particulate matter
DRO	diesel range organics
DSA	Division of State Architect
DTSC	Department of Toxic Substances Control
DWR	California Department of Water Resources
EI	Expansion Index
EIR	Environmental Impact Report
EISA	Energy Independence and Security Act
EPRI	Electric Power Research Institute
ESA	Environmental Site Assessment
FATES	FIFRA Federal Insecticide Fungicide Rodenticide Act
FCAA	Federal Clean Air Act
FEMA	Federal Emergency Management Area
FHSZ	Fire Hazard Severity Zones
FIRM	Flood Insurance Rate Map
FMP	Facilities Management Plan
FTA	Federal Transit Administration
FRA	Federal Railroad Administration



Acronym/Abbreviation	Term
FRAP	Fire Resource and Assessment Program
FWPCA	Federal Water Pollution Control Act
GHG	Greenhouse Gas
GIS	Geographic Information System
GPA	General Plan Amendment
GPS	Global Positioning System
GRO	gasoline range organics
GSWC	Golden State Water Company
GWP	Global Warming Potential
HCM	Highway Capacity Manual
HCP	Habitat Conservation Plan
HFCs	Hydrofluorocarbons
HMBP	Hazardous Materials Business Plan
HRECs	historical recognized environmental conditions
HS	High School
HSC	Health and Safety Code
HSWA	Hazardous Solid Waste Act
Hz	Hertz
I-	Interstate
ICU	Intersection Capacity Utilization
IEPR	California's Integrated Energy Policy Report
ILE	Institute of Lighting Engineers
IPaC	Information, Planning and Conservation
IPCC	International Panel on Climate Change
IR	Interpretation of Regulations
IS	Initial Study
IT	information technology
ITE	Institute of Transportation Engineers
JFTB	Joint Forces Training Base
JWPCP	Joint Water Pollution Control Plant
L ₉₀	Noise Level that is exceeded 90 percent of the time at a given location
L _{dn}	Day-Night Average Noise
L _{eq}	Equivalent Noise Level
LAPD	Los Alamitos Police Department
LAUSD	Los Alamitos Unified School District
LARWQCB	Los Angeles Regional Water Quality Board
LBP(s)	lead-based paint(s)
LBT	Long Beach Transit
LID	low impact development
L _{max}	root mean square maximum noise level during measurement interval
LOS	Level of Service
LRAs	Local Responsibility Areas
LRP	Legally Responsible Person
LSTs	Localized Significance Thresholds
LUST	Leaking Underground Storage Tank



Acronym/Abbreviation	Term
MBTA	Migratory Bird Treaty Act
mgd	Million Gallons Per Day
µg/kg	microgram per kilogram
MLD	Most Likely Descendant
MM(s)	Mitigation Measure(s)
MMRP	Mitigation Monitoring and Reporting Program
MND	Mitigated Negative Declaration
MPE	Maximum Probable Earthquake
mpg	miles per gallon
MRO	motor oil range organics
MRDS	Mineral Resources Data System
MRZ	Mineral Resource Zone
MS4	Municipal Separate Storm Sewer Systems permit
msl	mean sea level
MT	Metric Ton
MtCO ₂ e	million tonnes CO ₂ equivalent
MWD	Metropolitan Water District
N ₂ O	Nitrous Oxide
NAAQS	National Ambient Air Quality Standards
NAHC	Native American Heritage Commission
NCCP	Natural Community Conservation Plan
NFA	No Further Action
ND	Negative Declaration
NHD	National Hydrography Dataset
NHTSA	National Highway Traffic Safety Administration
NO	nitric oxide
NO ₂	Nitrogen Dioxide
NOI	Notice of Intent
NO _x	Nitrogen Oxides
NPDES	National Pollutant Discharge Elimination
NRCS	Natural Resources Conservation Service
NWI	National Wetlands Inventory
O ₃	Ozone
OCFA	Orange County Fire Authority
OCGB	Orange County Groundwater Basin
OCPs	Organochlorine Pesticides
OCTA	Orange County Transportation Authority
OPR	Office of Planning and Research
OPSC	Office of Public School Construction
OSHA	Occupational Safety and Health Administration
Pb	Lead
ppb	parts per billion
PCB	Polychlorinated Biphenyl
PD	Police Department
PEA	Preliminary Endangerment Assessment



Acronym/Abbreviation	Term
PEA	Preliminary Environmental Assessment
PEL	Permissible Exposure Limits
PFCs	Perfluorocarbons
phf	Peak Hour Factor
PM	Particulate Matter
PM ₁₀	Respirable Particulates
PM _{2.5}	Fine Particulate Matter
ppb	Parts per billion
PPV	Peak Particle Velocity
PRA	Pipeline Risk Analysis
PRC	Public Resources Code
PRDs	Permit Registration Documents
RACM	Reasonably Available Control Measure
RAP	Rammed aggregate pier
RAQS	Regional Air Quality Strategy
RACT	Reasonably Available Control Technology
RCB	reinforced concrete box
RCP	reinforced concrete pipe
RCRA	Resource Conservation and Recovery Act
RCRIS	Resource Conservation and Recovery Information Systems
RECs	Recognized Environmental Conditions
RLASD	Rossmoor/Los Alamitos Sewer District
RMP	Risk Management Plan
RMS	root mean square
ROG	Reactive Organic Gases
ROSB	Railroad Operations and Safety Branch
RSL	Regional Screening Levels
RWQCB	Regional Water Quality Control Board
SB 18	California Senate Bill 18
SCAB	South Coast Air Basin
SCAG	Southern California Association of Governments
SCAQMD	South Coast Air Quality Management District
SCE	Southern California Edison
SCCIC	South Central Coastal Information Center
SCH	State Clearinghouse
SEMS	Standardized Emergency Management System
SF ₆	Sulfur Hexafluoride
SIA	Surface Impoundments
SIP	California State Implementation Plan
SLF	Sacred Lands File
SLT	Screening Level Thresholds
SMARA	Surface Mining and Reclamation Act
SMARTS	Stormwater Multi-Application and Report Tracking System
SMP	Soil Management Plan for Contaminated Soils
SO ₂	Sulfur Dioxide



❖ ACRONYMS AND ABBREVIATIONS ❖

Acronym/Abbreviation	Term
SQG	Small Quantity Generators
SR-	State Route
SRA	State Responsibility Area
SRAs	Source Receptor Areas
SSI	Supplemental Site Investigation
STEM	Science, Technology, Engineering and Math
STP	Standard Temperature and Pressure
SUSMP	Standard Urban Stormwater Mitigation Plan
SWPPP	Stormwater Pollution Prevention Plan
SWRCB	State Water Resources Control Board
TAC	Toxic Air Contaminant
TCR(s)	Tribal Cultural Resource(s)
TDS	total dissolved solids
TIA	Traffic Impact Analysis
tonnes	metric tons
TPH	total petroleum hydrocarbons
UBC	Uniform Building Code
UNFCCC	United Nations Framework Convention on Climate Change
USDA	United States Department of Agriculture
USEPA	United States Environmental Protection Agency
USFWS	United States Fish and Wildlife Service
USGS	United States Geological Survey
UWMP	Urban Water Management Plan
VdB	Vibration Decibels
V/C ratio	traffic volume to street capacity ratio
VHFHSZ	Very High Fire Hazards Severity Zone
VMT	Vehicle Miles Traveled
VOC(s)	Volatile Organic Compound(s)
WQMP	Water Quality Management Plan
WRI	World Resources Institute
WTP	Water Treatment Plan
ZEVs	Zero Emission Vehicles
§	Section
°F	degrees Fahrenheit



1.0 INTRODUCTION

1.1 Project Overview

This Initial Study (IS) was prepared by UltraSystems Environmental, Inc. (UltraSystems) for the Los Alamitos Unified School District (District) to assess potentially significant environmental impacts associated with the proposed project pursuant to the California Environmental Quality Act (CEQA) and implementing regulations.¹ Based on the IS, the District has determined that a Mitigated Negative Declaration (MND) is the appropriate level of CEQA environmental documentation for this project because mitigation measures may be adopted during project construction and operation to reduce potential impacts to less than significant levels.

1.2 Lead Agency

The District is the Lead Agency for this project pursuant to the CEQA and implementing regulations.² The Lead Agency has the principal responsibility for implementing and approving a project that may have a significant effect on the environment.

The purpose of an IS under § 15063(c) of the CEQA Statute and Guidelines is to:

- Provide the Lead Agency with information necessary to decide if an Environmental Impact Report (EIR), Negative Declaration (ND), or Mitigated Negative Declaration (MND) should be prepared.
- Enable a Lead Agency to modify a project to mitigate adverse impacts before an EIR is prepared, thereby enabling the project to qualify for a ND or MND.
- Assist in the preparation of an EIR, if required, by focusing the EIR on adverse effects determined to be significant, identifying the adverse effects determined not to be significant, explaining the reasons for determining that potentially significant adverse effects would not be significant, and identifying whether a program EIR, or other process, can be used to analyze adverse environmental effects of the project.
- Facilitate an environmental assessment early during project design.
- Provide documentation in the ND or MND that a project would not have a significant effect on the environment.
- Eliminate unnecessary EIRs.
- Determine if a previously prepared EIR could be used for the project.

In cases where no potentially significant impacts are identified, the Lead Agency may issue a ND, and no mitigation measures would be needed. Where potentially significant impacts are identified, the Lead Agency may determine that mitigation measures would adequately reduce these impacts to less than significant levels. The Lead Agency would then prepare a MND for the project. If the Lead Agency determines that individual or cumulative effects of the project would cause a significant adverse

1 Public Resources Code §§ 21000 - 21177 and California Code of Regulations Title 14, Division 6, Chapter 3.

2 Ibid.



environmental effect that cannot be mitigated to less than significant levels, then the Lead Agency would require an EIR to further analyze these impacts.

1.3 Review and Comment by Other Agencies

Other public agencies are provided the opportunity to review and comment on the IS/MedTech of these agencies is described briefly below.

- A Responsible Agency (14 CCR § 15381) is a public agency, other than the Lead Agency, that has discretionary approval power over the project, such as permit issuance or plan approval authority.
- A Trustee Agency³ (14 CCR § 15386) is a state agency having jurisdiction by law over natural resources affected by a project that are held in trust for the people of the State of California.
- Agencies with Jurisdiction by Law (14 CCR § 15366) are any public agencies who have authority (1) to grant a permit or other entitlement for use; (2) to provide funding for the project in question; or (3) to exercise authority over resources which may be affected by the project. Furthermore, a city or county will have jurisdiction by law with respect to a project when the city or county having primary jurisdiction over the area involved is: (1) the site of the project; (2) the area in which the major environmental effects will occur; and/or (3) the area in which reside those citizens most directly concerned by any such environmental effects.

1.4 Requirements of an Initial Study

CEQA Guidelines § 15063(d) identifies the following specific contents of an IS.

- A description and the location of the project.
- A description of the environmental setting.
- An assessment of environmental effects by use of a checklist, matrix, or other method, provided that entries on a checklist or other form are briefly explained to indicate that there is some evidence to support the entries. The brief explanation may be either through a narrative or a reference to another information source such as an attached map, photographs, or an earlier EIR or negative declaration. A reference to another document should include, where appropriate, a citation to the page or pages where the information is found.
- A discussion of measures to mitigate significant adverse environmental effects, if any.
- An examination of existing zoning, plans and other land use controls that apply to the project.
- The names of persons that participated in the preparation of the document.

3 The four Trustee Agencies in California listed in CEQA Guidelines § 15386 are California Department of Fish and Wildlife, State Lands Commission, State Department of Parks and Recreation, and University of California.



1.5 Mitigation Measures

Pursuant to CEQA Guidelines, § 15041, Authority to Mitigate, a lead agency for a project has authority to require feasible changes in any or all activities involved in the project in order to substantially lessen or avoid significant effects on the environment, consistent with applicable constitutional requirements such as the “nexus” and “rough proportionality” standards. As defined by 14 CCR § 15040, “feasible” means capable of being accomplished in a successful manner within a reasonable period of time, taking into account economic, environmental, legal, social, and technological factors.

If significant impacts are identified, then mitigation measures are adopted to reduce the impact to less than significant levels. Mitigation measures must meet the following criteria:

- An essential nexus (i.e., connection) must be established between the mitigation measure and a legitimate governmental interest;
- The mitigation measure must be “roughly proportional” to the impacts of the project.

There are several forms of mitigation under CEQA (§ 15370). These are summarized below.

- **Avoiding** the impact by preservation and maintenance operations during the life of the action.
- **Minimizing** impacts by limiting the degree or magnitude of the action and its implementation.
- **Rectifying** the impact by repairing, rehabilitating, or restoring the impacted environment.
- **Reducing or eliminating** the impact over time by preservation and maintenance operations during the life of the action.
- **Compensating** for the impact by replacing or providing substitute resources for the impacted environment(s) having similar functions of equal or greater ecological value.

Avoiding impacts is the preferred form of mitigation measure, followed by minimizing and rectifying the impact to less than significant levels. Compensating for impacts would be used only when the other mitigation measures are not feasible.

Moreover, a lead agency may approve a project even though the project would cause a significant effect on the environment if the agency makes a fully informed and publicly disclosed decision that:

- a) There is no feasible way to lessen or avoid the significant effect.
- b) Specifically identified expected benefits from the project outweigh the policy of reducing or avoiding significant environmental impacts of the project.

1.6 Incorporation by Reference

Pursuant to CEQA Guidelines, § 15150, this IS/MND incorporates by reference all or portions of other technical documents that are a matter of public record. Those documents either relate to the



proposed project or provide additional information concerning the project's environmental setting. Where all or a portion of another document is incorporated by reference, the incorporated language considered is described within the text of this IS/MND.

The information contained in this IS/MND (refer to **Section 5.0, References**) is based, in part, on the following related technical studies and/or planning documents that include the project site or provide information addressing the general project area:

- *City of Los Alamitos General Plan* adopted in 2015.
- *City of Los Alamitos Municipal Code*, which included zoning and various development related requirements for the City.⁴

1.7 Organization of Initial Study/Mitigated Negative Declaration

This IS/MND is organized to satisfy CEQA requirements, and includes findings that no significant environmental impacts would occur when proposed mitigation measures are adopted. The IS/MND includes the following sections:

- **Section 1.0 - Introduction**, which identifies the purpose and scope of the IS/MND.
- **Section 2.0 - Environmental Setting**, which describes location, existing site conditions, land uses, zoning designations, topography, and other existing components.
- **Section 3.0 - Project Description**, which provides an overview of the project objectives, a description of the proposed development, project phasing during construction, and discretionary actions for the approval of the project.
- **Section 4.0 - Environmental Checklist**, which presents checklist responses for each resource topic to identify and assess impacts associated with the proposed project, and proposes mitigation measures, where needed, to render potential environmental impacts less than significant, where feasible.
- **Section 5.0 - References**, which includes a list of documents cited in the IS/MND.
- **Section 6.0 - List of Preparers**, which identifies the primary authors and technical experts that prepared the Initial Study.
- **Section 7.0 - Mitigation Monitoring and Reporting Plan (MMRP)**, which specifies the recommended mitigation measures, the implementation stage, and the enforcement agency.

⁴ <https://qcode.us/codes/losalamitos/>. Accessed February 19, 2019



Technical studies and other documents, which include supporting information or analyses used to prepare the IS/MND, are included in the following appendices:

Appendix A -	Project Plans
Appendix B -	Criteria Pollutant and Greenhouse Gas Emissions Modeling
Appendix C -	Cultural Resources Letter Report
Appendix D -	Geotechnical Report
Appendix E -	California Geological Survey Application for Assessment of Geologic Hazard Reports
Appendix F -	Department of Toxic Substances Control Preliminary Environmental Assessment Approval
Appendix G -	Pipeline Risk Assessment
Appendix H -	Updated Technical Memorandum - Waste Characterization Soil Sampling (October 31, 2018)
Appendix I -	EMF/EMI Risk Assessment Study
Appendix J -	Ambient Noise Sampling Data
Appendix K -	Water Quality Management Plan
Appendix L -	Phase I Environmental Site Assessment
Appendix M -	Phase I ESA Approval

1.8 Findings from the Initial Study

1.8.1 No Impacts or Impacts Considered Less than Significant

Based on the findings of this IS/MND, the project would have no impact or less than significant impacts to the following environmental categories listed in Appendix G of the CEQA Guidelines.

Aesthetics	Mineral Resources
Agriculture/Forestry Resources	Population Housing
Air Quality	Public Services
Energy	Recreation
Greenhouse Gas Emissions	Transportation
Hydrology/Water Quality	Tribal Cultural Resources
Land Use/Planning	Utilities/Service Systems
	Wildfire

1.8.2 Impacts Considered Less than Significant with Mitigation Measures

Based on IS findings, the project would have a less than significant impact on the following environmental categories listed in Appendix G of the CEQA Guidelines when proposed mitigation measures are adopted.

Biological Resources
Cultural Resources
Geology and Soils
Hazards and Hazardous Materials
Noise
Mandatory Findings of Significance



1.9 Process for Adoption of MND

Prior to MND adoption and proposed project approval, a Notice of Intent to Adopt a MND will be provided to Responsible Agencies, Trustee Agencies, Agencies with Jurisdiction by Law, and the public to allow 30 days to review and comment on the IS/MND.

Approval of the proposed project by the Los Alamitos Unified School District and adoption of the IS/MND occurs after considering agency and public comments. By adopting the IS/MND, the Los Alamitos Unified School District certifies that the analyses provided in the IS/MND were reviewed and considered by the Los Alamitos School District Board of Education and reflects its independent judgment and analysis.



2.0 ENVIRONMENTAL SETTING

2.1 Project Location

The project site is located on the grounds of the Los Alamitos High School campus, which is located within the incorporated City of Los Alamitos in northern Orange County (refer to **Figure 2.1-1** through **Figure 2.1-3**).

The north portion of the campus includes two softball diamonds, two baseball diamonds, tennis courts, basketball courts, an athletic pool, and a football stadium with a track field. The proposed multistory Science, Technology, Engineering, and Math (STEM) classroom building would be located on the south side of the campus, adjacent to the existing parking lot.

The City's General Plan land use designations and zoning in the vicinity of the project site are listed in **Table 2.1-1**, and shown in **Figure 2.1-4** and **Figure 2.1-5**, respectively. The project site is zoned as C-F, Community Facilities by the City of Los Alamitos. The area to the north is zoned as R-1, Single Family Residential; east is zoned as R-1, Single Family Residential; west is zoned as R-1, Single Family Residential and C-F, Community Facilities; and south is zoned as P-M, Planned Light Industrial.

Table 2.1-1
SUMMARY OF LAND USES AND ZONING

Area	Existing General Plan Land Use	Zoning	Existing use
Los Alamitos High School	Community & Institutional	C-F Community Facilities	Educational and Athletics Facilities
North	Open Area and Single Family Residential	R-1 Single Family Residential	Carbon Creek Channel and Single-Family Homes
East	Single Family Residential	R-1 Single Family Residential	Single Family Homes
West	Open Area, Planned Industrial, Retail Business, and Single Family Residential	R-1 Single Family Residential and C-F Community Facilities	Coyote Creek Channel, Commercial Uses, and Single-Family Homes
South	Planned Industrial	P-M Planned Light Industrial	Commercial and Industrial Uses



**Figure 2.1-1
REGIONAL LOCATION**

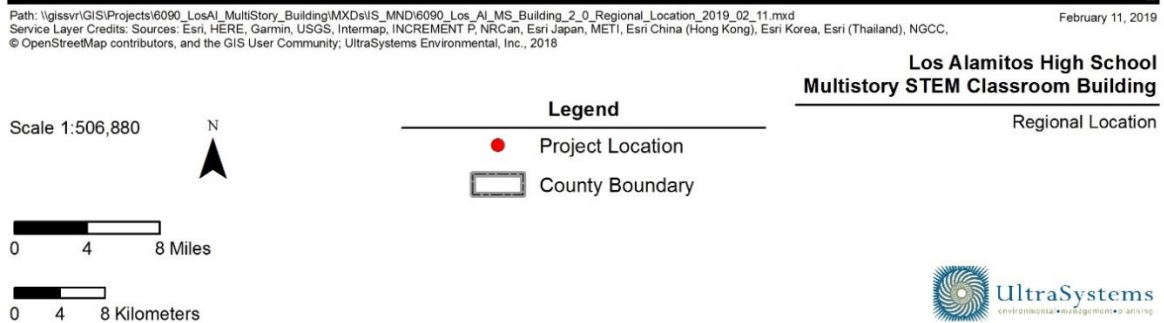
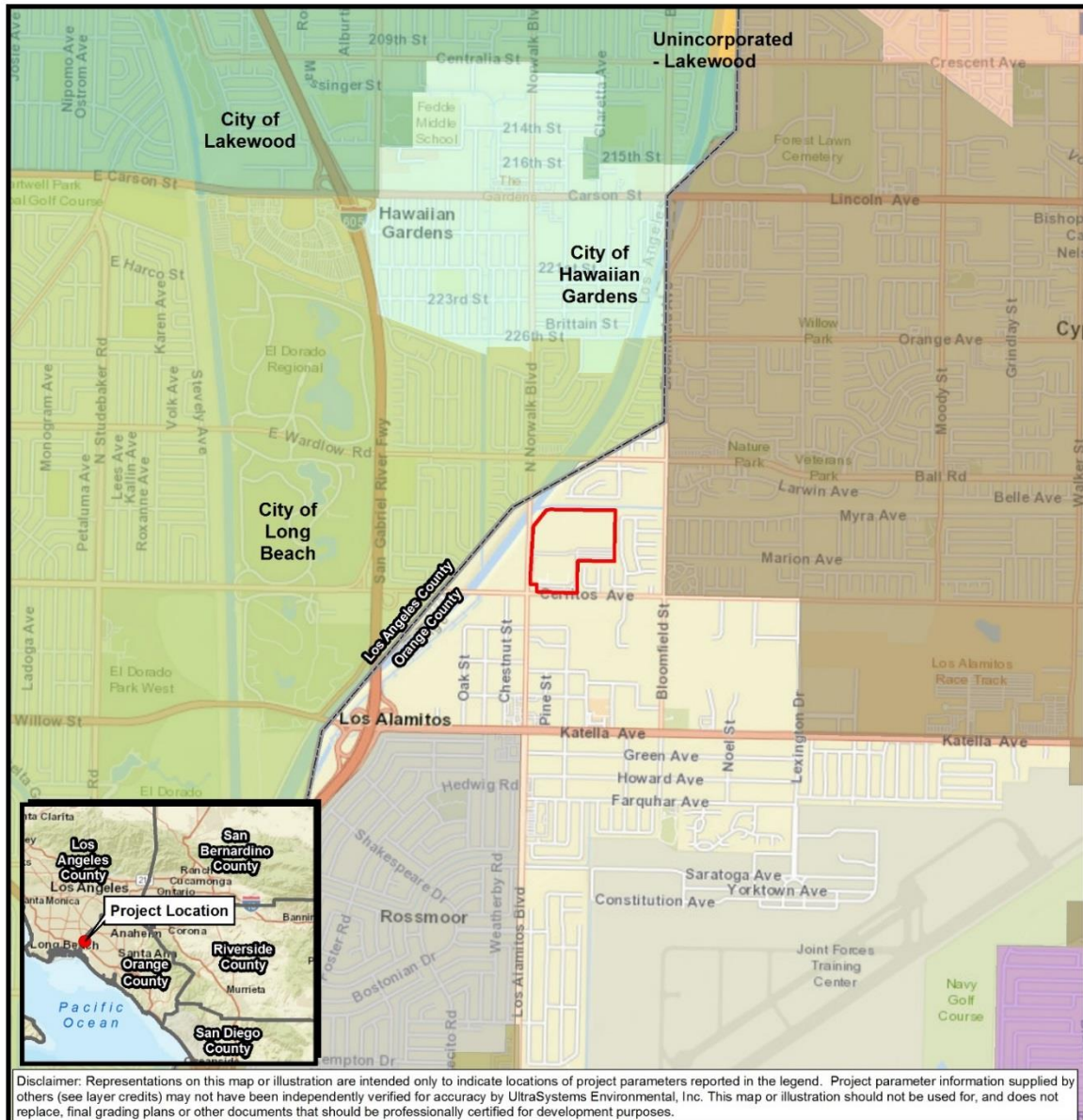




**Figure 2.1-2
PROJECT VICINITY**



Path: \\gisvri\GIS\Projects\6090_LosAI_MultiStory_Building\MXDs\IS_MND\6090_Los_AI_MS_Building_2_0_Project_Vicinity_2019_02_11.mxd
Service Layer Credits: Sources: Esri, HERE, Garmin, USGS, Intermap, INCREMENT P, NRCan, Esri Japan, METI, Esri China (Hong Kong), Esri Korea, Esri (Thailand), NGCC, © OpenStreetMap contributors, and the GIS User Community; County of Orange, 2016; UltraSystems Environmental, Inc., 2018

February 11, 2019

**Los Alamitos High School
Multistory STEM Classroom Building**

Project Vicinity

Scale 1:31,680



0 0.25 0.5 Miles

0 0.25 0.5 Kilometers

Legend

- Los Alamitos High School Boundary
- County Boundary



Figure 2.1-3
PROJECT LOCATION



Path: J:\Projects\6090_LoSAl_MultiStory_Building\Exported_Maps\LS_MND\6090_LoS_Al_MS_Building_2_0_Project_Location_2019_02_11.mxd
 Service Layer Credits: Esri, HERE, Garmin, [OpenStreetMap contributors](#), [Source: Esri](#), HERE, DeLorme, USGS, Intermap, the INCIS User Community, Esri, Japan, METI, Esri China (Hong Kong), Esri Korea, Esri (Thailand), [MapmyIndia](#), [NGCC](#), [OpenStreetMap contributors](#), and the GIS User Community, Esri, HERE, DeLorme, [MapmyIndia](#), [OpenStreetMap contributors](#), and the GIS user community. Source: Esri, DigitalGlobe, GeoEye, Earthstar Geographics, CNES/Airbus DS, USDA, USGS, AeroGRID, IGN, and the GIS User Community, County of Orange, 2017, [AllDataSystems Environmental, Inc.](#), 2018

February 11, 2019

Scale 1:7,200



0 300 600 Feet

A horizontal scale bar with a black outline. It is divided into two equal segments by a vertical line. The left segment is filled with solid black, and the right segment is white. Below the bar, the numbers 0, 100, and 200 are positioned at the start, the division line, and the end, respectively. The word "Meters" is placed to the right of the 200.

Legend

-  Los Alamitos High School Boundary
-  City Boundary

**Los Alamitos High School
Multistory STEM Classroom Building**

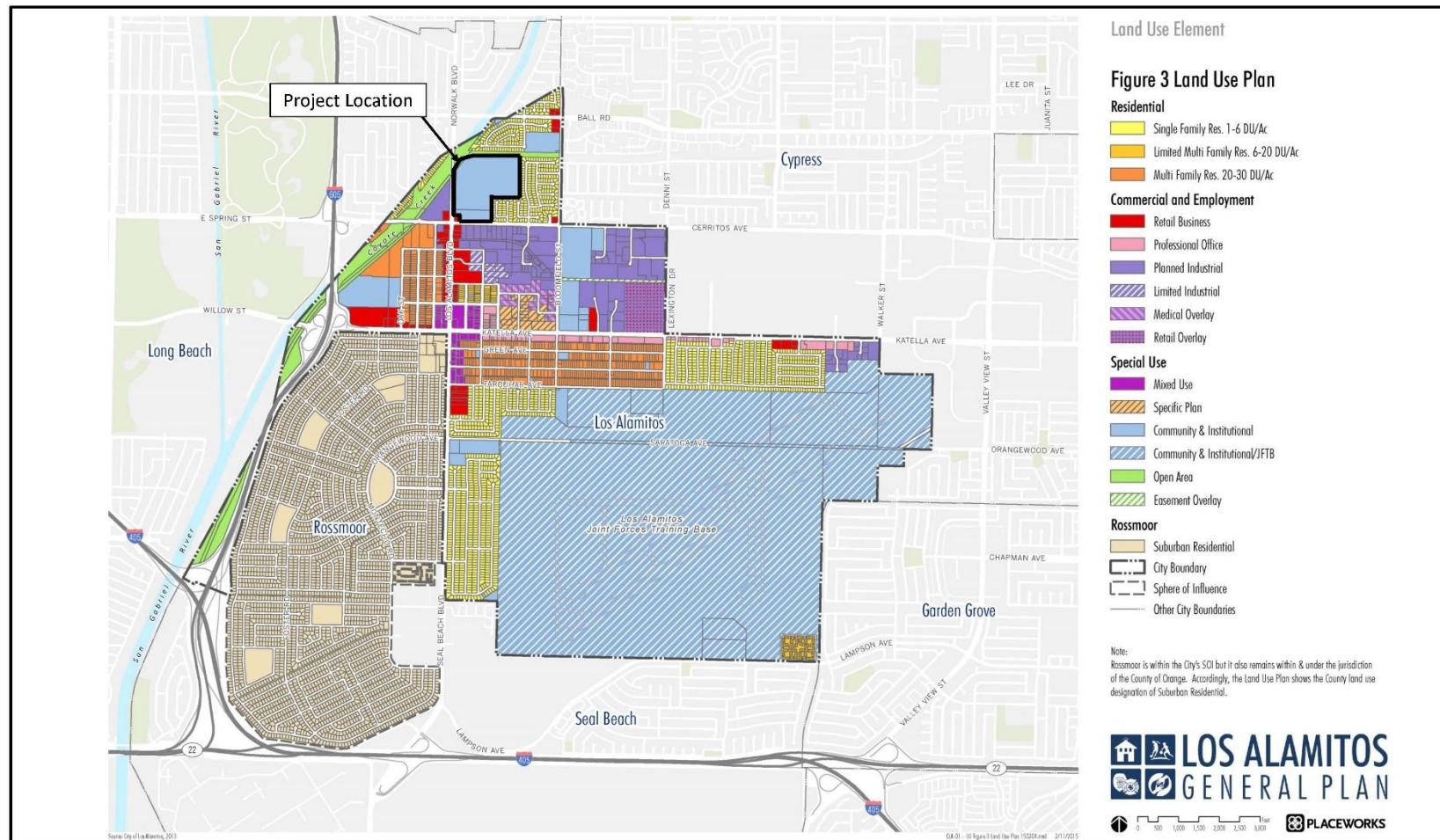
Project Location



UltraSystems
environmental • management • planning



Figure 2.1-4
GENERAL PLAN LAND USE DESIGNATION



Disclaimer: Illustration provided by City of Los Alamitos, who has indicated that the information is true and correct. No other warranties are expressed or implied

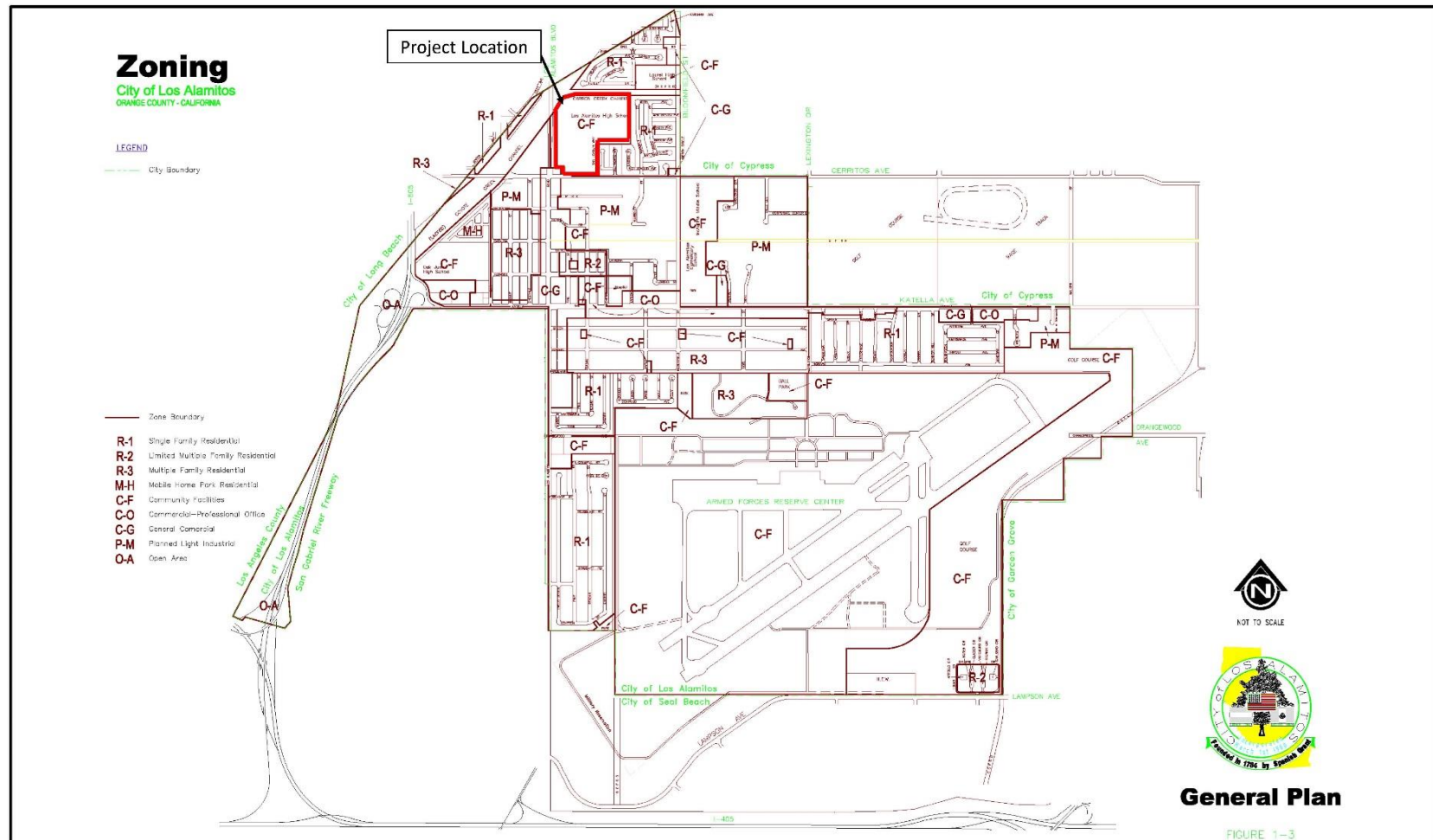
Source: City of Los Alamitos, March 2015



Los Alamitos High School
Multistory STEM Classroom Building
General Plan Land Use



**Figure 2.1-5
ZONING DESIGNATION**



Disclaimer: Illustration provided by City of Los Alamitos, who has indicated that the information is true and correct. No other warranties are expressed or implied
Source: City of Los Alamitos, 2010



Los Alamitos High School
Multistory STEM Classroom Building
Zoning



2.2 Campus History

The property of Los Alamitos High School was developed as part of a school campus between 1963 and 1972 (Historic Aerials, 2018). The project site was originally used as agricultural land. The original buildings at Los Alamitos High School were constructed beginning in 1967 with continuing construction of additional buildings through the 1970's. In 2003 and 2004 most of the buildings at the High School underwent modernization; however, this did not include the replacement of the site's infrastructure. As part of this modernization in 2004, two new two-story buildings were constructed referred to as the 700 buildings. Over time relocatable classrooms have also been placed throughout the campus (Rachlin Partners, 2018, p. B1-1).

2.3 Existing Conditions

Los Alamitos High School campus is currently developed with 11 permanent buildings, 20 relocatable (portable) buildings, an athletic pool, a soccer field, two softball diamonds, two baseball diamonds, a football stadium with a track and field, eight tennis courts, and six basketball courts. Three existing surface parking lots, located in the west, south, and east portions of the school campus, provide ample parking for students, faculty, staff, parents, and volunteers. A photo key map is provided in **Figure 2.3-1** and project site photographs are provided in **Figure 2.3-2** and **Figure 2.3-3**.

2.4 Climate and Air Quality

The annual average temperature in Los Alamitos is approximately 64 degrees Fahrenheit (°F), and annual average total precipitation is approximately 0.76 inches, which occurs mostly during the winter. Winds in this region are generally light (Weather Underground, 2018).

The project site is located within the South Coast Air Basin (SCAB), a 6,600-square-mile area encompassing all of Orange County and the non-desert portions of Los Angeles, Riverside, and San Bernardino Counties. Based on regional monitoring data and the National Ambient Air Quality Standards (NAAQS), the SCAB is currently designated as an extreme nonattainment area for 8-hour ozone (O₃); attainment for nitrogen dioxide (NO₂); attainment for carbon monoxide (CO); attainment for particulate matter PM₁₀; nonattainment for lead (Pb); serious nonattainment for particulate matter PM_{2.5}; and attainment for sulfur dioxide (SO₂) (U.S. EPA, 2018).

The SCAB is currently designated nonattainment for O₃ and particulate matter PM₁₀ and PM_{2.5}; attainment for CO, NO₂, SO₂, sulfates, and Pb; and unclassified for hydrogen sulfides and visibility reducing particles under the California Ambient Air Quality Standards (CAAQS) (California Air Resources Board, 2017).



Figure 2.3-1
PHOTO LOCATION MAP





Figure 2.3-2
PHOTOS OF EXISTING SITE



PHOTO 1: View of the Administration Building and landscaped grass area. View to the southeast.



PHOTO 2: View of the Administration Building. View to the south.



PHOTO 3: View of the Administration Building. View to the southeast.



PHOTO 4: View of the Administration Building entrance. View to the north.



Figure 2.3-3
PHOTOS OF EXISTING SITE



PHOTO 5: View of the area between the Administration Building and the adjacent Classroom building. View to the north.



PHOTO 6: View away from the Administration Building of the landscaped grass area. View to the northeast.



PHOTO 7: View away from the Administration Building. View to the north.

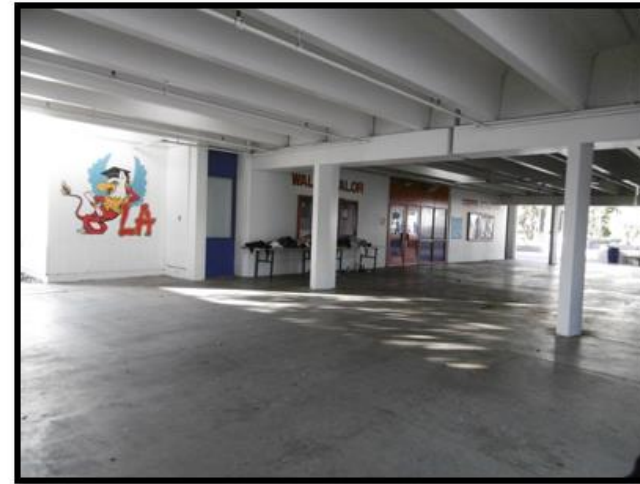


PHOTO 8: View of the Administration Building. View to the northwest.



2.5 Geologic and Soil Setting

The City of Los Alamitos is located in the west portion of the Los Angeles Basin. The Los Angeles Basin is considered part of the Transverse Ranges geomorphic province of California. This area of Southern California is a seismically active region as a result of being located near the active margin between the North American and Pacific tectonic plates. The nearest known active fault is the Los Alamitos fault, which is approximately one mile from the project site.

2.6 Project Topography and Hydrology

The project site is relatively flat at an elevation of approximately 30 feet above mean sea level (amsl). The site is within the Lower San Gabriel River Watershed, which is under the jurisdiction of the Santa Ana Regional Water Quality Control Board (RWQCB). The nearest river is the San Gabriel River approximately 1.5 miles to the southwest and the nearest surface water bodies are Coyote Creek located approximately 150 feet to the northwest and Carbon Creek located approximately 25 feet to the north. Stormwater leaving the project site discharges into Los Alamitos Channel, bypassing both Carbon Canyon Creek Channel and Coyote Creek Channel.

2.7 Biological Setting

The City of Los Alamitos is urbanized and the existing vegetation is largely ornamental. Coyote Creek and Carbon Creek, located approximately 150 and 25 feet, respectively from the project site, are concrete-lined channels. Although both creeks provide limited habitat for many species, they could serve as wildlife corridors for riparian dependent species, shorebirds, and waterfowl. The dominant land use in the project vicinity is urban development with ornamental landscaping. Turf, paved asphalt, concrete, and dirt are located on the project site. Ornamental trees are also located throughout the project site.



3.0 PROJECT DESCRIPTION

3.1 Project Overview

The Los Alamitos Unified School District (District) proposes the construction of a new three-story, approximately 86,528-square-foot multistory STEM classroom building at Los Alamitos High School in the City of Los Alamitos, California. The proposed project would provide new classroom facilities, while removing existing portable classroom units, to provide an enhanced learning experience for students.

In the 2017-2018 school year Los Alamitos High School served a student population of approximately 3,235 in grades 9 through 12 and employed approximately 140 faculty and administrative staff members (California Department of Education, 2018). The school was built in the late 1960s. The campus has facilities that are over 50 years old and are augmented by relocatable/portable classroom buildings (portables). The proposed STEM classroom building would replace some of the existing portable classrooms on campus with permanent facilities. The project would not increase student enrollment. Currently, 12 permanent buildings and 25 existing portables are located on the school site. Existing athletic facilities within the school campus include an athletic pool, a soccer field, two softball diamonds, two baseball diamonds, a track and field facility with bleacher seating, eight tennis courts, and six basketball courts.

3.2 Project Location

The proposed project is located on the campus of Los Alamitos High School in Los Alamitos, California. The incorporated City of Los Alamitos is in Orange County, California. Los Alamitos High School is located at 3591 West Cerritos Avenue, Los Alamitos. The project site is located in an urban area and is surrounded by a mix of commercial and residential uses. West of the campus is Coyote Creek Channel and north of the campus is Carbon Creek Channel. The project is located north of West Cerritos Avenue and east of Norwalk Boulevard. Residential land uses are located to the northwest, north, east, and southeast of the project site. Commercial land uses are located to the west and south of the project site. Refer to **Section 2.0** for a detailed description of the project's existing environmental setting. **Figure 3.3-1** shows the layout of the existing facilities (shown in yellow) that will be demolished to make room for the new STEM classroom building as well as buildings located adjacent to the proposed classroom building.

3.3 Proposed Project

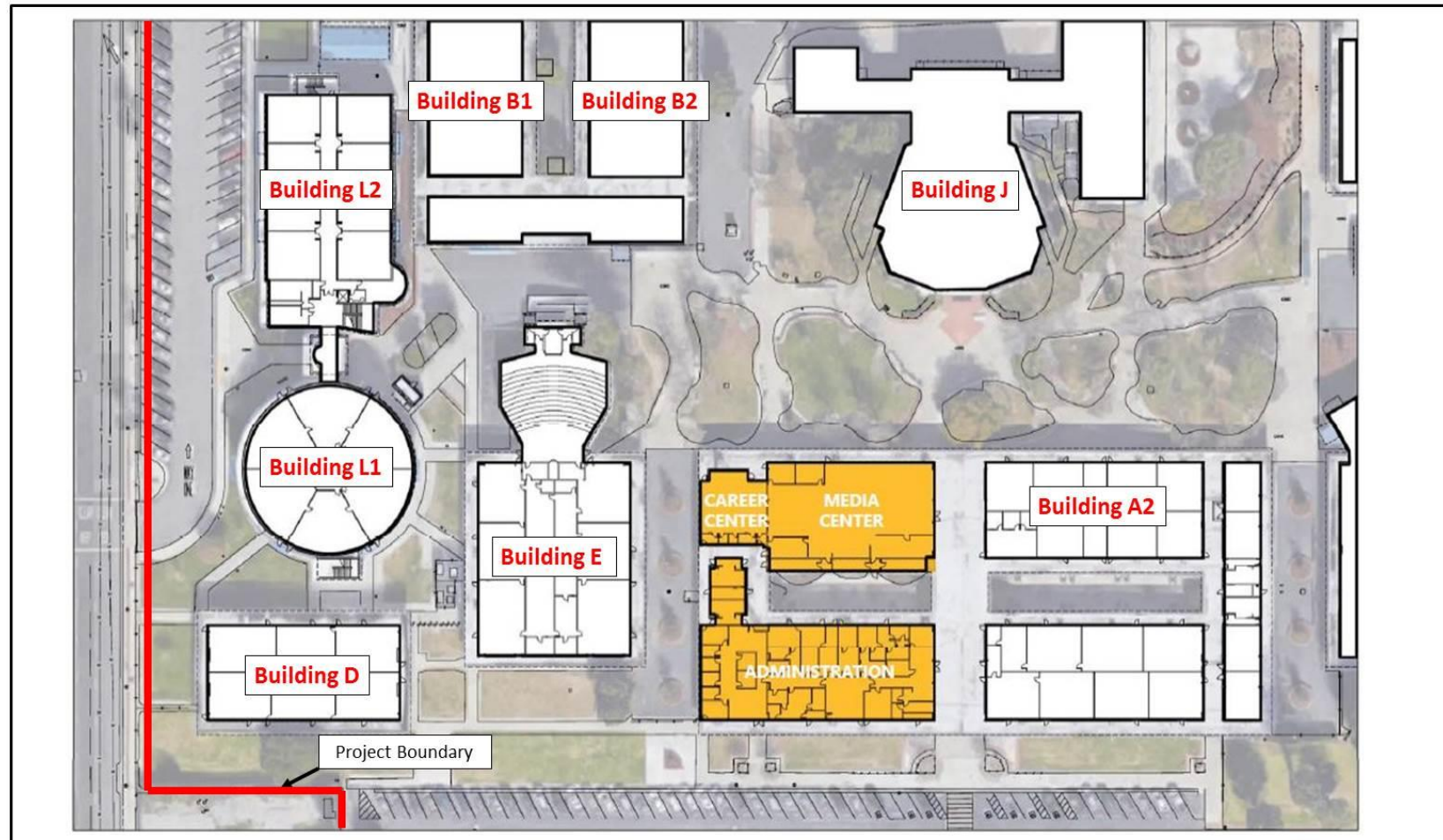
Construction phases for the project would include: 1) demolition; 2) foundation, grading, and underground utilities; 3) structural steel, framing, rough-in MEPs (i.e. mechanical, electrical and plumbing fixtures); 4) exterior and interior building finishes, and exterior hardscape and softscape finishes (Mendoza, 2019).

3.3.1 Demolition

The project would demolish the existing Administration and Media Center building and associated infrastructure, landscaping, and utilities. Construction is anticipated to be completed in one phase. Approximately 12 parking spaces will be eliminated to create a new student drop-off area. **Figure 3.3-2** shows the area that will be demolished as a part of the project.



Figure 3.3-1
EXISTING FACILITIES AT LOS ALAMITOS HIGH SCHOOL



Disclaimer: Illustration provided by Westgroup Designs, who has indicated that the information is true and correct. No other warranties are expressed or implied

Source: Westgroup Designs, 11/28/18

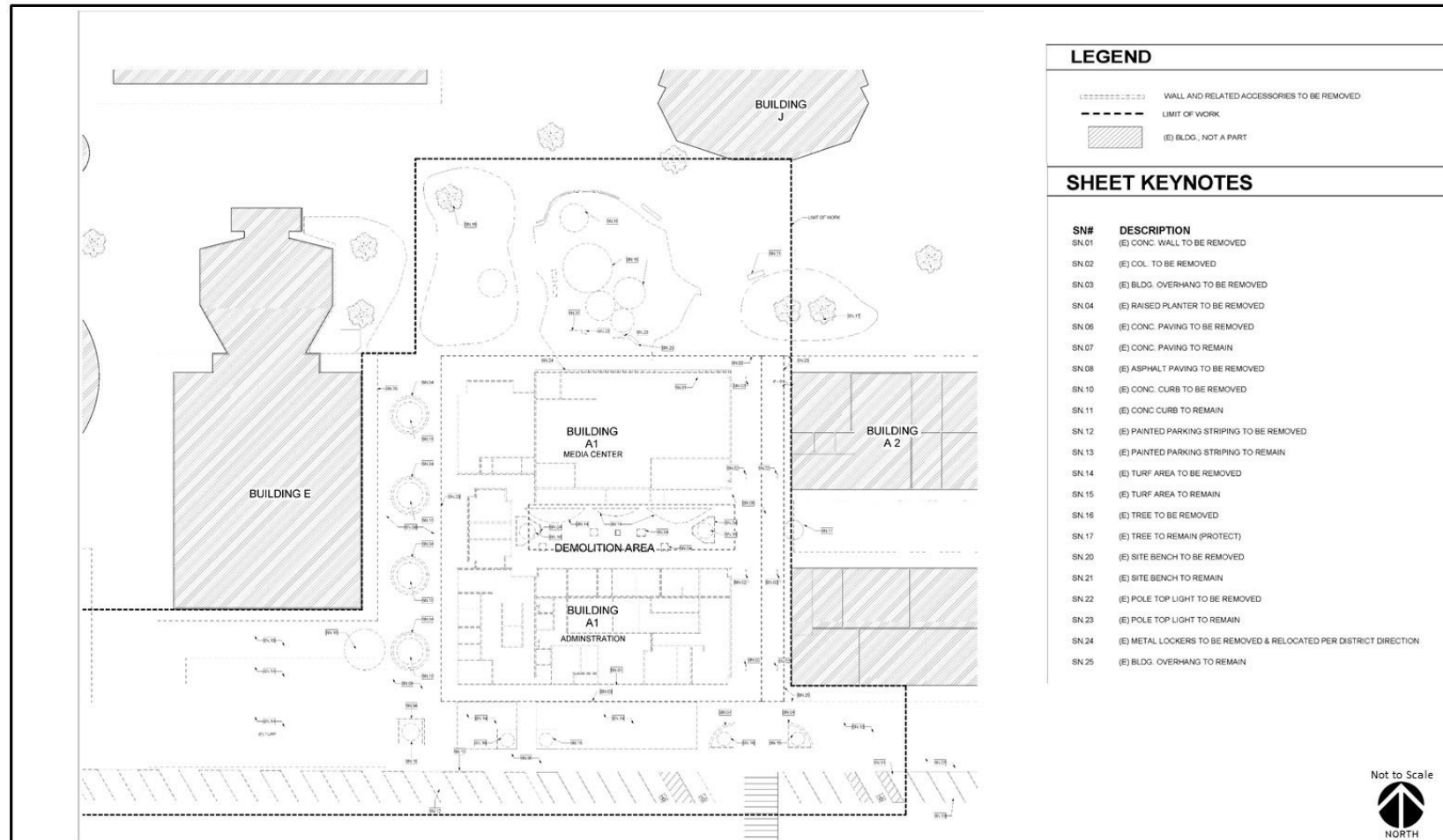


Los Alamitos High School
Multistory STEM Classroom Building

Site Plan for Existing Facilities at Los Alamitos High School



Figure 3.3-2
PROPOSED DEMOLITION AREA



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Source: © WESTGROUP DESIGNS, INC., March 2019



Los Alamitos High School
Multistory STEM Classroom Building

Demolition Site Plan



3.3.2 Multistory STEM Classroom Building

The proposed new Student Services/Science, Technology, Engineering & Math (STEM) Classroom Building would provide students and staff modern facilities that would support the campus for the next 50 years. The new three-story 86,528-square-foot building would be a fully-sprinklered building that would replace some of the existing portable classrooms on campus with permanent facilities. The building would be located at the front of the campus to enhance school safety while presenting a new civic face to the community. **Figure 3.3-3** shows the site plan for the proposed multistory STEM classroom building. **Figures 3.3-4** through **3.3-6** show the first, second, and third floor plans, respectively, for the proposed project. **Figure 3.3-7** shows the high school campus layout after development of the proposed new STEM building.

The ground floor would house new student services including: Administration, Health Services, Counseling Services, Campus Discipline & Safety, Campus Information Technology (I.T.) support, Media Center, and Career Center. Specialized Career Technical Education (CTE) instruction spaces would also be located on the ground floor, which would introduce expanded Health Sciences/Medical Technologies and Information and Computer Technologies pathways to the curriculum. The two upper floors of the new building would house 13 general classrooms, 14 science classrooms and associated student and staff support spaces, including dedicated Professional Learning Community (PLC) spaces for enhanced collaboration between STEM teaching disciplines.

The new building would be constructed to be in compliance with the California Green Building Code. In order to facilitate energy efficiency, the building would be designed to accept solar panels and battery storage. In addition to high-efficiency HVAC systems, the energy usage of the new building would be substantially lower than that of the buildings that would be demolished as part of the project.

3.3.3 Utility Improvements

The proposed project does not include utility improvements; however, a power and data infrastructure project for the Los Alamitos High School campus is expected to be completed by August 2019. This separate project would provide electricity and data distribution systems to all buildings on the school campus.

3.3.4 Landscaping/Resurfacing

The project proposes installation of landscaping adjacent to and in the vicinity of the proposed multi-story building. The project proposes a variety of different trees, shrubs, and groundcover onsite. Trees would be planted adjacent to the proposed building on all sides. The following trees are proposed: Crape Myrtle; Brisbane Box; London Plane Tree; and Chinese Elm. Refer to **Figure 3.3-8**, which shows the planting plan for the proposed project.

3.3.5 Project Access and Parking

Public access to the high school campus and existing sports and athletic fields is currently provided from West Cerritos Avenue and Los Alamitos Boulevard. At project completion, campus access, traffic circulation, drop-off and pick-up locations, and vehicular parking areas would remain the same. The proposed project would not impact project access or parking and would not change the allocation of



parking on the high school campus. Ample parking spaces would be available within existing surface parking lots located on campus to accommodate the parking needs of the project.

During project construction some parking adjacent to the construction area would be temporarily unavailable; however, after project construction those spaces would be available for parking.

3.4 Construction Activities and Schedule

Construction activities for the proposed project are anticipated to last approximately 24 months. Construction is expected to be completed in one phase which includes demolition of the existing administration and media center building. It is anticipated that construction at the project site would begin in January 2020, would last 24 months and would end in January 2022⁵. The stages for proposed improvements are provided below:

- Demolition of existing career/media center building and administration building.
- Grading and excavation in preparation of new building construction (the amount of cut & fill associated with grading would be minimal - less than one foot).
- Installation of building foundation (using rammed aggregate pier [RAP] system).
- Construction activities.

The project would begin with the removal/demolition of the existing buildings and associated improvements. Debris would be disposed of at an appropriate landfill or recycling facility that accepts construction and demolition waste. Subsequently, grading/excavation activities would occur. Following this, the building and associated improvements would be constructed.

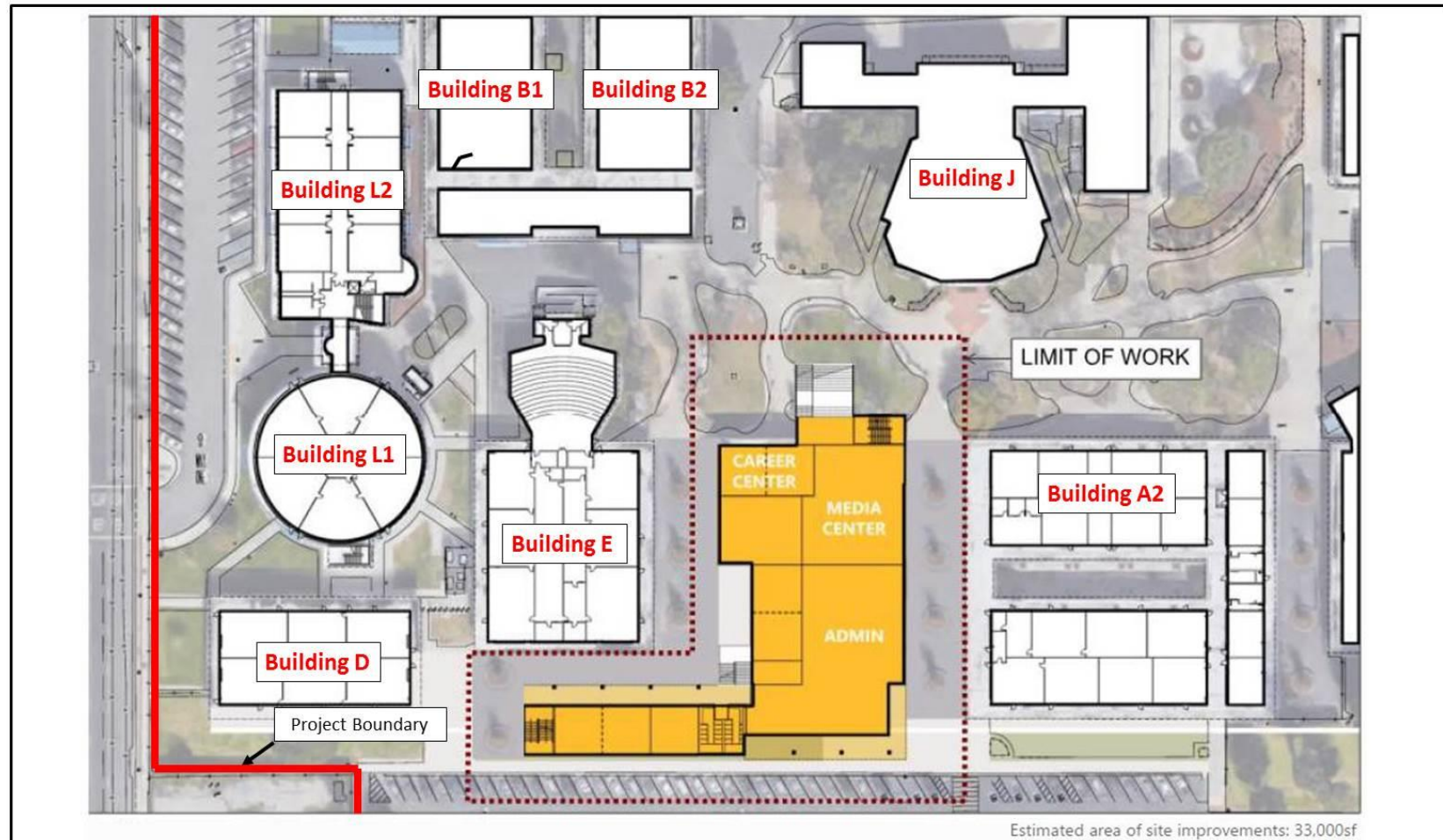
Construction access would be provided through the existing surface streets adjacent to the project site. The project would have 40-80 construction employees onsite at a time depending on the stage of construction. More construction workers would be onsite during the middle stage of construction, and less during the beginning (demolition, grading) and end (finishes) stages. Major construction equipment would include two to three cranes during steel erection (early/mid 2020), mid-sized backhoes onsite during utility relocations (late 2019/early 2020), mid-sized dozers and loaders during earthwork (late 2019/early 2020), and a large fork lift for the duration of the project (Sinnott, 2019a).

Construction staging would occur within the boundaries of the site and would be separated from the rest of the school campus by construction fencing. Construction workers would park within a fenced-in area on the project site or at an off-site parking location. Construction employees would not park on public streets in the vicinity of the project (Knowland, 2019a). The District's construction contractor would prepare and comply with a Storm Water Pollution Prevention Plan (SWPPP), including site-specific best management practices (BMPs) for erosion and sediment control, as required by the State Water Resources Control Board's General Construction Permit.

5 Per email correspondence on April 24, 2019 between Mayra Gonzales, Facilities and Construction Manager, at Los Alamitos Unified School District and Margaret Partridge, Senior Project Manager, at UltraSystems.



Figure 3.3-3
SITE PLAN FOR PROPOSED MULTISTORY STEM CLASSROOM BUILDING



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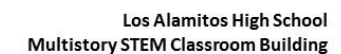
Source: Westgroup Designs, 11/28/18



Los Alamitos High School
Multistory STEM Classroom Building
Proposed Multistory Stem Classroom Building

[illegible]

Source: Westgroup Designs, 1/31/19



First Floor Plan



Figure 3.3-5
MULTISTORY STEM CLASSROOM BUILDING-SECOND FLOOR PLAN



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Source: Westgroup Designs, 1/31/19



Los Alamitos High School
Multistory STEM Classroom Building

Second Floor Plan



Figure 3.3-6
MULTISTORY STEM CLASSROOM BUILDING-THIRD FLOOR PLAN



Disclaimer: Illustration provided by Westgroup Designs, who has indicated that the information is true and correct. No other warranties are expressed or implied

Source: Westgroup Designs, 1/31/19



Los Alamitos High School
Multistory STEM Classroom Building

Third Floor Plan

[illegible]

UltraSystems
environmental • management • planning

School Layout

[illegible]

UltraSystems
environmental • management • planning

Planting Plan



The proposed project would be designed, approved and constructed in accordance with the requirements of the Division of the State Architect (DSA), the latest adopted version of the California Building Code (CBC) for the construction of public school buildings, and the recommendations outlined in the DSA's Interpretation of Regulations (IR).

The IRs were created by DSA as an acceptable method for achieving compliance with applicable building codes and regulations including structural design, relocatable buildings, fire-resistive building materials, fire alarms, fire suppression equipment, safe occupant egress, and firefighting equipment access. Compliance with these standards and code requirements would ensure implementation of structural safety, fire protection, energy efficient design, water conservation measures, and would aid in the reduction of greenhouse gas emissions.

3.5 Relocation

Students and high school staff from the buildings that would be demolished would be temporarily relocated to portable units on campus. Interim housing would be provided to accommodate both students and staff during construction of the proposed STEM building. Refer to **Figure 3.3-9** below, which shows the interim housing site plan.

3.6 Removal of Existing Onsite Portables

As part of the proposed project, the STEM building would ultimately allow for approximately thirty portable buildings to be removed from the Los Alamitos High School campus.

3.7 Reviewing Agencies

The following agencies would be provided an opportunity to review the IS/MND for compliance with applicable requirements, and to submit written comments, if any, to the Lead Agency.

State

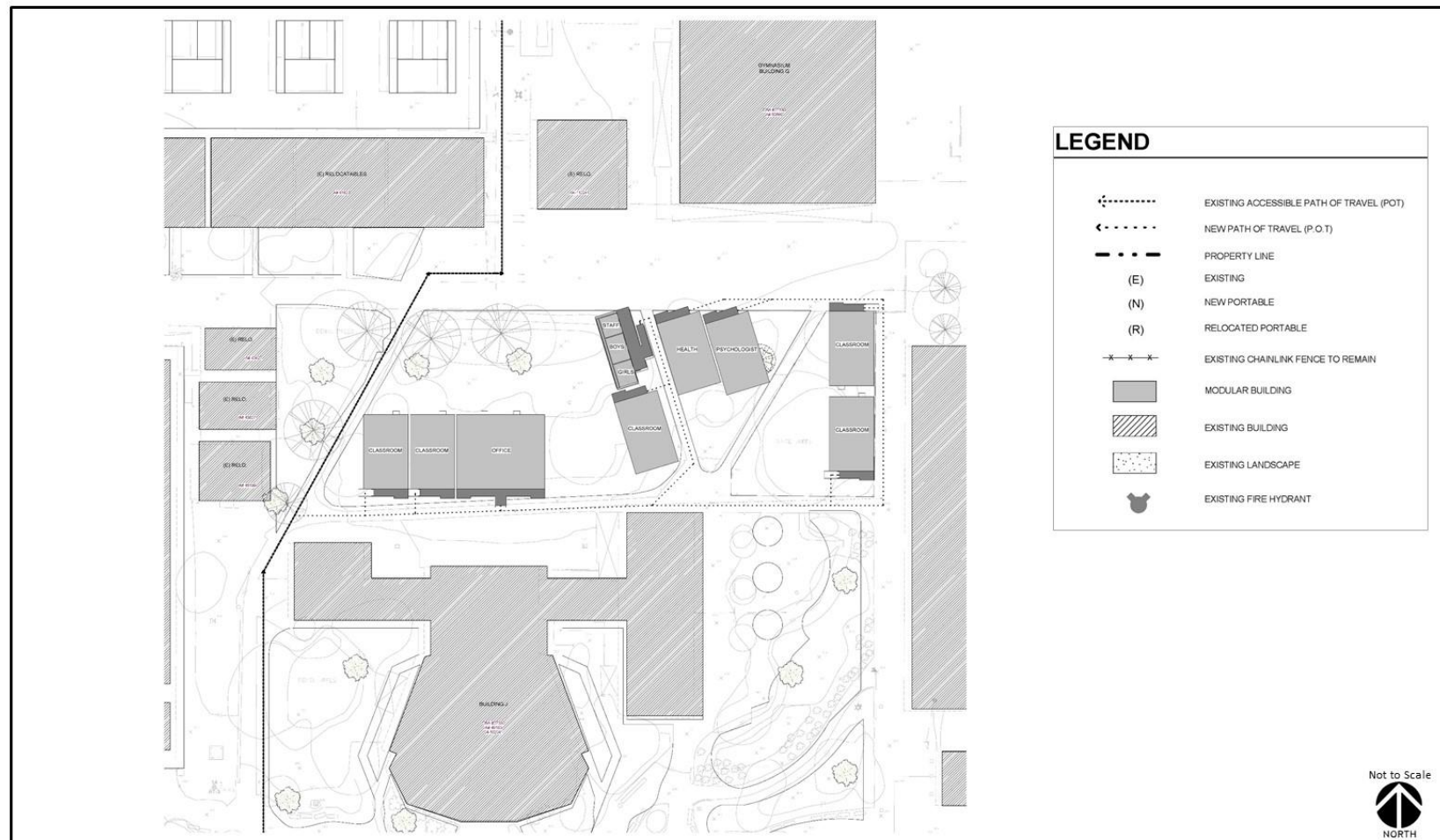
- California Office of Planning and Research – State Clearinghouse
- California Department of Education
- California Geological Survey
- Division of the State Architect
- Native American Heritage Commission
- Department of Conservation
- California Department of Fish and Wildlife
- Department of Health Services
- Office of Emergency Services
- State Water Resources Control Board

Regional and Local

- Orange County Fire Authority
- City of Los Alamitos Development Services Department
- City of Los Alamitos Police Department
- Golden State Water
- South Coast Air Quality Management District
- Orange County Health Care Agency



Figure 3.3-9
LOS ALAMITOS HIGH SCHOOL INTERIM HOUSING SITE PLAN



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Source: © WESTGROUP DESIGNS, INC., April 2019



Los Alamitos High School
Multistory STEM Classroom Building
Interim Housing Site Plan



3.8 Discretionary Actions

Following Lead Agency approval of this IS/MND (refer to **Section 1.0**), the following approvals would be required prior to construction.

AGENCY	PERMIT OR APPROVAL
California Division of the State Architect (DSA)	Approval of plans and specifications
California Geological Society	Review of geotechnical information
California Regional Water Quality Control Board – Santa Ana (California Waterboards, 2018)	Issuance of National Pollutant Discharge Elimination (NPDES) permit to contractor
South Coast Air Quality Management District	Issuance of applicable air quality permits
Orange County Health Department	Permit
California Department of Education	Approval of Plans



4.0 ENVIRONMENTAL CHECKLIST

Environmental Factors Potentially Affected

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

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

Determination (To Be Completed by the Lead Agency)

On the basis of this initial evaluation:

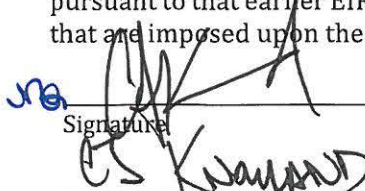
☐ I find that the proposed project COULD NOT have a significant effect on the environment, and a NEGATIVE DECLARATION will be prepared.

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

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

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

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



Signature

Printed Name

9/11/19

Date
Los Alamitos Unified School District

For



Special Requirements under the State School Facility Program

In addition to the CEQA Guidelines, primary and secondary public schools have several additional requirements established by the California Code of Regulations and California Education Code. **Table 4.0-1** identifies the specific health and safety requirements for a state-funded new school or a state-funded addition to an existing school site. These health and safety requirements are outlined in the California Department of Education (CDE) School Site Selection and Approval Guide. (CDE, 2017). The analyses and response are included under the relevant section identified in the table below.

Table 4.0-1
SPECIAL REQUIREMENTS FOR SCHOOL SITE SELECTION AND APPROVAL

TOPIC	APPLICABLE CODE	ENVIRONMENTAL CHECKLIST
AIR QUALITY		
Is the boundary of the proposed school site within 500 feet of the edge of the closest traffic lane of a freeway or busy traffic corridor? If yes, would the project create an air quality health risk due to the placement of the School?	PRC § 21151.8(a)(1)(D); Ed. Code § 17213(c)(2)(C)	Section 4.3 Air Quality, Question (f)
Would the project create an air quality hazard due to the placement of a school within one-quarter mile of: (a) permitted and non-permitted facilities identified by the jurisdictional air quality control board or air pollution control district; (b) freeways and other busy traffic corridors; (c) large agricultural operations; and/or (d) a rail yard, which might reasonably be anticipated to emit hazardous air emissions, or handle hazardous or acutely hazardous material, substances, or waste?	PRC § 21151.8 (a)(2); Ed. Code § 17213 (b)	Section 4.3 Air Quality, Question (g)
GEOLOGY AND SOILS		
Does the site contain an active earthquake fault or fault trace, or is the site located within the boundaries of any special studies zone or within an area designated as geologically hazardous in the safety element of the local general plan?	CCR, Title 5 § 14010(f); Ed. Code, § 17212	Section 4.7 Geology and Soils, Question (a) i)
Would the project involve the construction, reconstruction, or relocation of any school building on a site subject to moderate-to-high liquefaction?	CCR, Title 5 § 14010(i)	Section 4.7 Geology and Soils, Question (a) ii)
Would the project involve the construction, reconstruction, or relocation of any school building on a site subject to landslides?	CCR, Title 5 § 14010(i)	Section 4.7 Geology and Soils, Question (a) iv)



❖ SECTION 4.0 – ENVIRONMENTAL CHECKLIST ❖

TOPIC	APPLICABLE CODE	ENVIRONMENTAL CHECKLIST
GEOLOGY AND SOILS		
Would the project involve the construction, reconstruction, or relocation of any school building on the trace of a geological fault along which surface rupture can reasonably be expected to occur within the life of the school building?	CCR, Title 5 § 14010(f); Ed. Code § 17212	Section 4.7 Geology and Soils, Question (a) i)
HAZARDS AND HAZARDOUS MATERIALS		
Is the property line of the proposed school site less than the following distances from the edge of respective powerline easements: (1) 100 feet of a 50-133 kV line; (2) 150 feet of a 220-230 kV line; or (3) 350 feet of a 500-550 kV line?	CCR, Title 5 § 14010(c)	Section 4.9 Hazards and Hazardous Materials, Question (j)
Is the proposed school site located near an aboveground water or fuel storage tank or within 1,500 feet of an easement of an aboveground or underground pipeline that can pose a safety hazard to the site?	CCR, Title 5 § 14010(h)	Section 4.9 Hazards and Hazardous Materials, Question (i)
Is the proposed school site situated within 2,000 feet of a significant disposal of hazardous waste?	CCR, Title 5 § 14010(t)	Section 4.9 Hazards and Hazardous Materials, Question (g)
Does the proposed school site contain one or more pipelines, situated underground or aboveground, which carry hazardous substances, acutely hazardous materials, or hazardous wastes, unless the pipeline is a natural gas line that is used only to supply natural gas to that school or neighborhood?	PRC § 21151.8 (a)(1)(C)	Section 4.9 Hazards and Hazardous Materials, Question (h)
Is the school site in an area designated in a city, county, or city and county general plan for agricultural use and zoned for agricultural production, and if so, do neighboring agricultural uses have the potential to result in any public health and safety issues that may affect the pupils and employees at the school site? <i>(Does not apply to school sites approved by CDE prior to January 1, 1997.)</i>	Ed. Code § 17215.5 (a)	Section 4.9 Hazards and Hazardous Materials, Question (p)
Does the project site contain a current or former hazardous waste disposal site or solid waste disposal site and, if so, have the wastes been removed?	PRC § 21151.8 (a)(1)(A)	Section 4.9 Hazards and Hazardous Materials, Question (e)



❖ SECTION 4.0 – ENVIRONMENTAL CHECKLIST ❖

TOPIC	APPLICABLE CODE	ENVIRONMENTAL CHECKLIST
HAZARDS AND HAZARDOUS MATERIALS		
Is the project site a hazardous substance release site identified by the state Department of Health Services in a current list adopted pursuant to §25356 for removal or remedial action pursuant to Chapter 6.8 of Division 20 of the Health and Safety Code?	PRC § 21151.8 (a)(1)(B)	Section 4.9 Hazards and Hazardous Materials, Question (d)
If prepared, has the risk assessment been performed with a focus on children's health posed by a hazardous materials release or threatened release, or the presence of naturally occurring hazardous materials on the school site?	Ed. Code § 17210.1 (a)(3)	Section 4.9 Hazards and Hazardous Materials, Question (c)
If a response action is necessary and proposed as part of this project, has it been developed to be protective of children's health, with an ample margin of safety?	Ed. Code § 17210.1 (a)(4)	Section 4.9 Hazards and Hazardous Materials, Question (s)
Is the proposed school site within two miles, measured by air line, of that point on an airport runway or potential runway included in an airport master plan that is nearest to the site? <i>(Does not apply to school sites acquired prior to January 1, 1966.)</i>	Ed. Code § 17215 (a)&(b)	Section 4.9 Hazards and Hazardous Materials, Question (k & l)
HYDROLOGY AND WATER QUALITY		
Is the project site subject to flooding or dam inundation?	CCR, Title 5 § 14010(g); Ed. Code § 17212;	Section 4.10 Hydrology and Water Quality, Question (k)
LAND USE AND PLANNING		
Would the proposed school conflict with any existing or proposed land uses, such that a potential health or safety risk to students would be created?	CCR, Title 5 § 14010(m)	Section 4.11 Land Use and Planning, Question (d)
NOISE		
Is the proposed school site located adjacent to or near a major arterial roadway or freeway whose noise generation may adversely affect the education program?	CCR, Title 5 § 14010(e)	Section 4.13 Noise, Question (g)
PUBLIC SERVICES		
Does the site promote joint use of parks, libraries, museums, and other public services?	CCR, Title 5 § 14010(o)	Section 4.15 Public Services, Question (f)
TRANSPORTATION AND TRAFFIC		
Is the proposed school site within 1,500 feet of a railroad track easement?	CCR, Title 5 § 14010(d)	Section 4.17 Transportation and Traffic, Question (g)



❖ SECTION 4.0 – ENVIRONMENTAL CHECKLIST ❖

TOPIC	APPLICABLE CODE	ENVIRONMENTAL CHECKLIST
TRANSPORTATION AND TRAFFIC		
Is the site easily accessible from arterials and is the minimum peripheral visibility maintained for driveways per Caltrans' Highway Design Manual?	CCR, Title 5 § 14010(k)	Section 4.17 Transportation and Traffic, Question (h)
Are traffic and pedestrian hazards mitigated per Caltrans' School Area Pedestrian Safety manual?	CCR, Title 5 § 14010(l)	Section 4.17 Transportation and Traffic, Question (a) and (d)

Evaluation of Environmental Impacts

- (1) A brief explanation is required for all answers except “No Impact” answers that are adequately supported by the information sources a lead agency cites in the parentheses following each question. A “No Impact” answer is adequately supported if the referenced information sources show that the impact simply does not apply to projects like the one involved (e.g., the project falls outside a fault rupture zone). A “No Impact” answer should be explained where it is based on project-specific factors, as well as general standards (e.g., the project would not expose sensitive receptors to pollutants, based on a project-specific screening analysis).
- (2) All answers must take into account the whole action involved, including off-site as well as on-site, cumulative as well as project-level, indirect as well as direct, and construction as well as operational impacts.
- (3) After the lead agency has determined that a particular physical impact may occur then the checklist answers must indicate whether the impact is potentially significant, less than significant with mitigation, or less than significant. “Potentially Significant Impact” is appropriate if there is substantial evidence that an effect may be significant. If there are one or more “Potentially Significant Impact” entries when the determination is made, an EIR is required.
- (4) “Negative Declaration: Less than Significant with Mitigation Incorporated” applies where the incorporation of mitigation measures has reduced an effect from “Potentially Significant Impact” to a “Less than Significant Impact.” The lead agency must describe the mitigation measures and briefly explain how they reduce the effect to less than significant level.
- (5) Earlier analyses may be used where, pursuant to the tiering, program EIR, or other CEQA process, an effect has been adequately analyzed in an earlier EIR or negative declaration. (See § 15063(c)(3)(D) of the CEQA Guidelines. In this case, a brief discussion should identify the following:
 - (a) Earlier Analyses Used. Identify and state where the earlier analysis available for review.



❖ SECTION 4.0 – ENVIRONMENTAL CHECKLIST ❖

- (b) Impacts Adequately Addressed. Identify which effects from the above checklist were within the scope of and adequately analyzed in an earlier document pursuant to applicable legal standards, and state whether such effects were addressed by mitigation measures based on the earlier analysis.
- (c) Mitigation Measures. For effects that are “Less than Significant with Mitigation Measures Incorporated,” describe the mitigation measures that were incorporated or refined from the earlier document and the extent to which they address site-specific conditions for the project.
- (6) Lead agencies are encouraged to incorporate into the checklist references to information sources for potential impacts (e.g., general plans, zoning ordinances). Reference to a previously prepared or outside document should, where appropriate, include a reference to the page or pages where the statement is substantiated. A source list should be attached and other sources used or individuals contacted should be cited in the discussion.
- (7) Supporting Information Sources: A source list should be attached, and other sources used or individuals contacted should be cited in the discussion.
- (8) This is only a suggested form, and lead agencies are free to use different formats; however, lead agencies should normally address the questions from this checklist that are relevant to a project’s environmental effects in whatever format is selected.
- (9) The explanation of each issue should identify:
 - (a) The significance criteria or threshold, if any, used to evaluate each question; and
 - (b) The mitigation measure identified, if any, to reduce the impact to less than significant.



4.1 Aesthetics

Except as provided in Public Resources Code Section 21099, would the project:	Potentially Significant Impact	Less than Significant Impact with Mitigation Incorporated	Less than Significant Impact	No Impact
a) Have a substantial adverse effect on a scenic vista?				X
b) Substantially damage scenic resources, including, but not limited to, trees, outcroppings, and historic buildings within a state scenic highway?				X
c) In non-urbanized areas, substantially degrade the existing visual character or quality 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?			X	
d) Create a new source of substantial light or glare which would adversely affect day or nighttime views in the area?			X	

A “visual environment” includes the built environment (development patterns, buildings, parking areas, and circulation elements) and natural environment (such as hills, vegetation, rock outcroppings, drainage pathways, and soils) features. Visual quality, viewer groups and sensitivity, duration, and visual resources characterize views. Visual quality refers to the general aesthetic quality of a view, such as vividness, intactness, and unity. Viewer groups identify who is most likely to experience the view. High-sensitivity land uses include residences, schools, playgrounds, religious institutions, and passive outdoor spaces such as parks, playgrounds, and recreation areas. Duration of a view is the amount of time that a particular view can be seen by a specific viewer group. Visual resources refer to unique views, and views identified in local plans, from scenic highways, or of specific unique structures or landscape features.

a) **Except as provided in Public Resources Code Section 21099, would the project have a substantial adverse effect on a scenic vista?**

No Impact

Topography in the City of Los Alamitos is relatively flat. Views from public roadways, thoroughfares and open spaces in the City include distant views of the San Gabriel and San Bernardino Mountains to the north and Santa Monica Mountains to the west.

The proposed project is located in a developed urban area in the northwestern part of the City. The project proposes the construction of a multistory STEM classroom building on the grounds of an



existing high school campus. The city of Los Alamitos General Plan EIR does not identify scenic vistas in the project area. As detailed in the Initial Study prepared for the City of Los Alamitos General Plan Update, “Los Alamitos and its SOI [Sphere of Influence] are primarily built out and do not contain substantial undeveloped areas. Proposed land use changes are limited to urbanized areas of the City, and therefore infill and redevelopment would not impact any major scenic vistas in the region” (City of Los Alamitos, 2013, p. 37). Distant views of the San Gabriel, San Bernardino or Santa Monica Mountains, and the Pacific Ocean are available from local freeways and developments surrounding the project site. The three-story building would be visible from the adjacent roadways; however, the project would not have a substantial adverse effect on any scenic vista because none are identified in the project area.

- b) Except as provided in Public Resources Code Section 21099, would the project substantially damage scenic resources, including, but not limited to, trees, rock outcroppings, and historic buildings within a state scenic highway?**

No Impact

The project site does not contain notable visual resources such as rock outcroppings, trees, or historic buildings. According to the California Department of Transportation, the project site is not located in the vicinity of an officially designated or eligible state scenic highway, designated as part of the California Scenic Highway Program. The closest eligible state scenic highway is a portion of State Route 1 (Pacific Coast Highway) located approximately 4.5 miles southwest of the proposed project site (California Department of Transportation, 2018). Refer to **Figure 4.1-1** below. Therefore, the project would not damage scenic resources within a state scenic highway and no impacts would occur.

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

Less than Significant Impact

The project site is located in an urban setting characterized by single family residential units to the north and northeast, commercial to the southwest, and existing high school uses to the west and south. Most buildings appear well maintained and in good condition. Views of the existing streetscape include maintained sidewalks with tree lined streets. Street lights, and utility poles and cables are visible along the street frontage.

Direct public views of the project site are available from Los Alamitos Boulevard/Norwalk Boulevard. The proposed project would involve both temporary and permanent changes to the visual character of the site and its surroundings. Temporary changes would be associated with construction activities, including construction equipment and staging. These visual impacts would be short-term in nature and are anticipated to be less than significant.

Implementation of the proposed project would result in long-term/permanent changes to the visual character of the site and public views of the site due to the proposed multistory STEM classroom building. These changes would be visually compatible with the existing visual character of the surrounding area. While the project would result in a change to the existing visual character of the

Figure 4.1-1
DESIGNATED AND ELIGIBLE STATE SCENIC HIGHWAYS



Path: J:\Projects\6090_LosAl_MultiStory_Building\MXDs\IS_MND\6090_Los_Al_MS_Building_4_1_Scenic_Hwys_2019_02_11.mxd
Service Layer Credits: Sources: Esri, HERE, DeLorme, USGS, Intermap, INCREMENT P, NRCan, Esri Japan, METI, Esri China (Hong Kong), Esri Korea, Esri (Thailand), MapmyIndia, NGCC, © OpenStreetMap contributors, and the GIS User Community; Caltrans, 2014, UltraSystems Environmental, Inc., 2018

February 11, 2019

**Los Alamitos High School
Multistory STEM Classroom Building**

Scenic Highways

Scale 1:190,080



0 2 4 Kilometers

Legend

-  Project Location
 Eligible State Scenic Highway
 County Boundary





site, it would not result in the removal or degradation of any significant visual resources and would be coherent in appearance with the existing land uses on the campus. The new three-story STEM building would complement the existing buildings and architecture on campus. Building materials would include brick, glass and stucco. Refer to **Appendix A**, which includes project plans and details about the proposed building. For these reasons, the proposed project would have a less than significant impact on the visual character or quality of the site and its surroundings.

The proposed project would not conflict with applicable zoning and other regulations governing scenic quality because, as detailed in the City of Los Alamitos General Plan Environmental Impact Report, “Los Alamitos and its [Sphere of Influence] SOI are primarily built out and do not contain substantial undeveloped areas...infill and redevelopment would not impact any major scenic vistas in the region.” (The Planning Center/DC&E, 2013. p. A-47) Additionally, the City of Los Alamitos does not contain an Officially Designated State Scenic Highway, Officially Designated County Scenic Highway, or Eligible State Scenic Highway (The Planning Center/DC&E, 2013. p. A-47).

Table 4.1-1 below provides a list of goals and policies from the City of Los Alamitos General Plan that pertain to scenic quality and aesthetics and that are applicable to the proposed project, along with a description of how the proposed project would not conflict with these goals.

Table 4.1-1

PROJECT COMPLIANCE WITH CITY OF LOS ALAMITOS GENERAL PLAN GOALS AND POLICIES REGARDING SCENIC QUALITY AND AESTHETICS

General Plan Element	Project Compliance
Land Use Element	
Goal 4: Neighborhoods and buildings that are well maintained and demonstrate a sense of pride and identity.	The proposed project complies with this goal because it proposes a well-designed building that would serve as the face of the Los Alamitos High School campus.
Policy 4.1: Pride and Identity: Enhance the sense of identity and increase the feeling of pride among Los Alamitos residents, business owners, employees, and visitors through excellent physical design and continual property maintenance and improvements.	The proposed project complies with this policy because it would enhance the sense of identity for the existing Los Alamitos High School campus. The new multistory STEM classroom building has been designed to provide enhanced learning opportunities for students while also providing a building on the high school campus that would serve as the face of the school.
Open Space, Recreation, and Conservation Element	
Goal 2: Open space and landscaping that is attractive and functional.	The proposed project complies because it includes landscaping and plantings around the proposed new STEM building that would complement the existing landscaping at the Los Alamitos High School and that would complement the proposed new building.

The City of Los Alamitos Municipal Code contains regulations that pertain to scenic quality and a description of how the proposed project would not conflict with these regulations is provided in **Table 4.1-2** below.



Table 4.1-2
AESTHETICS-RELATED REGULATIONS FROM THE CITY OF LOS ALAMITOS MUNICIPAL CODE

City of Los Alamitos Municipal Code Section	Project Compliance
Lighting Performance Standards	
Lighting Performance Standards (Chapter 8.48). “Among other considerations related to outdoor illumination, Chapter 8.48 addresses the visual impacts of exterior lighting on adjacent property owners and neighborhoods. The chapter outlines guidelines for the design, scale, location, and illumination level of lighting fixtures. The guidelines aim to reduce light trespass and prevent glare” (Placeworks, 2014, p. 5.1-5).	The proposed project would comply because it would adhere to all City of Los Alamitos Municipal Code requirements regarding lighting and would not result in light trespass offsite.
Standards of Design	
Standards of Design (Chapter 16.12). “This section of the municipal code outlines requirements for the design of roadways, infrastructure, slopes, landscaping, and other elements of the built environment in Los Alamitos. Although the requirements largely focus on consistency with other local plans and state regulations, they address several aesthetic concerns. Provisions that directly relate to the visual environment of the City include the requirement that new development place utility lines underground, and provisions related to adequate landscaping and screening” (Placeworks, 2014, p. 5.1-5).	The proposed project would comply because applicable utilities would be placed underground and the project includes landscaping, as detailed in the landscaping plan in the project description section of this document.
Landscaping Standards	
Landscaping (Chapter 17.20). “Chapter 17.20 establishes landscape standards to “mitigate the effects of urbanization on the environment and to provide for an aesthetically pleasing urban setting.” Provisions establish a measure of uniformity in landscaping in existing developments when improvements are proposed. It is also the intent of this chapter to encourage optimum drought-tolerant plant materials (xeriscape) in conjunction with water-conserving automatic irrigation systems” (Placeworks, 2014, p. 5.1-6).	The proposed project would comply because a landscape plan has been prepared for the proposed project that would provide an aesthetically pleasing setting on the Los Alamitos High School campus.



City of Los Alamitos Municipal Code Section	Project Compliance
General Performance Standards	
General Performance Standards (Chapter 17.14). “The purpose of this chapter is to provide uniform performance standards, which are designed to minimize and mitigate the potential impacts of development in the City and promote compatibility with surrounding areas and land uses. Subsections 17.14.040, Light and Glare, and 17.14.070, Property Maintenance, address aesthetics concerns. Light and glare provisions require shielding of light sources to reduce impacts on surrounding land uses. Property maintenance provisions are related to the mitigation of public nuisances, which includes abatement of visual nuisances such as overgrown vegetation, accumulation of debris, and general neglect of property” (Placeworks, 2014, p. 5.1-6).	The proposed project would comply because it proposes a development that would be compatible with the existing uses on the Los Alamitos High School campus. The proposed building would enhance the educational facilities on the campus and would include landscaping that would be maintained on site.

As depicted in **Tables 4.1-1** and **4.1-2** above, the proposed project, which is located in an urbanized area, would not conflict with applicable zoning and other regulations governing scenic quality or aesthetic quality. Therefore, the proposed project would have a less than significant impact in this regard.

- d) Except as provided in Public Resources Code Section 21099, would the project create a new source of substantial light or glare which would adversely affect day or nighttime views in the area?**

Less than Significant Impact

The project site is located in an urban area, which is characterized by low to medium nighttime ambient light levels. Street lights, traffic on local streets and exterior lighting in surrounding developments are the primary sources of ambient lighting in the project area. Light sensitive uses in the project vicinity are limited to residences.

The project proposes new exterior lighting for the new building, including wall mounted lighting, and pole mounted lighting. Installation of proposed exterior lighting would be necessary for safety and nighttime visibility. The new project lighting would be visible from the surrounding area. Therefore, the project’s proposed exterior lighting is expected to contribute to ambient nighttime illumination in the project vicinity.

The project would comply with the requirements of California Building Code (CBC) that contains standards for outdoor lighting that are intended to reduce light pollution and glare by regulating light power and brightness, and shielding. Outdoor lighting fixtures would be installed in accordance with applicable CBC standards to ensure that the light does not illuminate nearby and adjacent properties and residences. Adherence to applicable CBC standards would ensure that new sources of light or glare would not adversely affect day or nighttime views in the area. Therefore, project impacts associated with a new source of substantial light or glare would be less than significant.



4.2 Agriculture and Forestry Resources

Would the project:	Potentially Significant Impact	Less than Significant Impact 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?				X
b) Conflict with existing zoning for agricultural use, or a Williamson Act contract?				X
c) Conflict with existing zoning for, or cause rezoning of, forest land (as defined in Public Resources Code section 12220(g)), timberland (as defined by Public Resources Codes section 4526), or timberland zoned Timberland Production (as defined by Government Code section 51104(g))?				X
d) Result in the loss of forest land or conversion of forest land to non-forest use?				X
e) Involve other changes in the existing environment which, due to their location or nature, could result in conversion of Farmland, to non-agricultural use or conversion of forest land to non-forest use?				X

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

No Impact

The project site is located in an urban setting containing a mix of institutional, commercial, and residential uses (Google Earth Pro, 2018). The project is proposed on an existing high school campus. Therefore, the project site is already developed and would not convert prime, unique, or farmland of statewide importance to urban use. No impacts to farmland would occur as a result of the project.



❖ SECTION 4.2 - AGRICULTURE AND FORESTRY RESOURCES ❖

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

No Impact

The project site is not located on land enrolled in a Williamson Act contract (California Department of Conservation, 2017a). Additionally, the project site is not located within an area zoned for agricultural use and is currently zoned as C-F, Community Facilities (City of Los Alamitos Zoning Map, n.d.). Therefore, no impact would occur.

- c) Would the project 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 Codes § 4526), or timberland zoned Timberland Production (as defined by Government Code § 51104(g))?**

No Impact

The project site is located within an existing high school campus, in a developed urban area. The project site is surrounded by institutional, commercial, and residential uses. No forestland or timberland are located on the project site. The site's existing zoning C-F, Community Facilities, does not support the definitions provided by Public Resources Code § 42526 for timberland, PRC § 12220(g) for forestland, or Government Code § 51104(g) for timberland zoned for production. Therefore, no impacts related to the conversion of timberland or forest land would occur.

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

No Impact

As previously stated in **Section 4.2 c)**, the project is located within an existing high school campus, in a developed urban area. Implementation of the project would not result in the loss of forest land or conversion of forest land to non-forest use. No impact would occur.

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

No Impact

As discussed in **4.2 a)** and **c)** above, the project site is located on campus of an existing high school in a completely urban setting containing a mix of institutional, commercial, and residential uses. No forest land is located within the project boundary or in the vicinity of the project site. Implementation of the project would not result in changes to the environment which, due to their location or nature, could result in the conversion of farmland to non-agricultural use or converting forest land to non-forest use. Therefore, no impact would occur.



4.3 Air Quality

Would the project:	Potentially Significant Impact	Less than Significant Impact with Mitigation Incorporated	Less than Significant Impact	No Impact
a) Conflict with or obstruct implementation of the applicable air quality plan?			X	
b) Result in a cumulatively considerable net increase of any criteria pollutant for which the project region is nonattainment under an applicable federal or state ambient air quality standard?			X	
c) Expose sensitive receptors to substantial pollutant concentrations?			X	
d) Result in other emissions (such as those leading to odors) adversely affecting a substantial number of people			X	
e) Is the boundary of the proposed school site within 500 feet of the edge of the closest traffic lane of a freeway or busy traffic corridor? If yes, would the project create an air quality health risk due to the placement of the school?				X
f) Create an air quality hazard due to the placement of a school within one-quarter mile of: (i) permitted and non-permitted facilities identified by the jurisdictional air quality control board or air pollution control district; (ii) freeways and other busy traffic corridors; (iii) large agricultural operations; and/or (iv) a rail yard, which might reasonably be anticipated to emit hazardous air emissions?				X

4.3.1 Pollutants of Concern – Criteria Pollutants

The criteria air pollutants of concern are nitrogen dioxide (NO₂), carbon monoxide (CO), particulate matter (PM), sulfur dioxide (SO₂), lead (Pb), and ozone (O₃), and their precursors. Criteria pollutants are air pollutants for which acceptable levels of exposure can be determined and an ambient air quality standard has been established by the U.S. Environmental Protection Agency (USEPA) and/or the California Air Resources Board (ARB). Because the proposed project would not generate appreciable SO₂ or Pb emissions, it is not necessary for the analysis to include those two pollutants.⁶ Presented below is a description of the air pollutants of concern and their known health effects.

Nitrogen oxides (NO_x): NO_x serve as integral participants in the process of photochemical smog production, and are precursors for certain particulate compounds that are formed in the

⁶ Worst-case sulfur dioxide emissions will be approximately 0.05 pound per day during construction and 0.12 pound per day during operations.



atmosphere.⁷ The two major forms of NO_x are nitric oxide (NO) and NO₂. NO is a colorless, odorless gas formed from atmospheric nitrogen and oxygen when combustion takes place under high temperature and/or high pressure. NO₂ is a reddish-brown pungent gas formed by the combination of NO and oxygen. NO₂ acts as an acute respiratory irritant and eye irritant, and increases susceptibility to respiratory pathogens. A third form of NO_x, nitrous oxide (N₂O), is a greenhouse gas (GHG).

Carbon monoxide (CO): CO is a colorless, odorless non-reactive pollutant produced by incomplete combustion of carbon-containing fuels (e.g., gasoline, diesel, and biomass). CO levels tend to be highest during the winter months and at low wind speeds, when the meteorological conditions favor the accumulation of the pollutants. This occurs when relatively low inversion levels trap pollutants near the ground and concentrate the CO. CO is essentially inert to plants and materials, but can have significant effects on human health. The primary adverse health effect associated with CO is its binding with hemoglobin in red blood cells, which decreases the ability of these cells to transport oxygen throughout the body. Prolonged exposure can cause headaches, drowsiness, or loss of equilibrium. High concentrations are lethal.

Particulate matter (PM): PM is a mixture of microscopic solids and liquid droplets suspended in air. This pollution is made up of a number of components, including acids and their derivatives (such as nitrates and sulfates), organic chemicals, metals, soil or dust particles, and allergens (such as fragments of pollen or mold spores). Two forms of fine particulate matter are now regulated. Respirable particles, or PM₁₀, include that portion of the particulate matter with an aerodynamic diameter of 10 micrometers (i.e., 10 one-millionths of a meter or 0.0004 inch) or less. Fine particles, or PM_{2.5}, have an aerodynamic diameter of 2.5 micrometers (i.e., 2.5 one-millionths of a meter or 0.0001 inch) or less. Particulate discharge into the atmosphere results primarily from industrial, agricultural, construction, and transportation activities. However, wind action on the arid landscape also contributes substantially to the local particulate loading. Fossil fuel combustion accounts for a significant portion of PM_{2.5}. In addition, particulate matter forms in the atmosphere through reactions of NO_x and other compounds (such as ammonia) to form inorganic nitrates. Both PM₁₀ and PM_{2.5} may adversely affect the human respiratory system, especially in those people who are naturally sensitive or susceptible to breathing problems.

Reactive organic gases (ROG): ROG are compounds comprised primarily of atoms of hydrogen and carbon that have high photochemical reactivity. The largest source of ROG is the incomplete combustion of fossil fuels in internal combustion engines. Other sources of ROG include the evaporative emissions associated with the use of paints and solvents, the application of asphalt paving, and the use of household consumer products. Adverse effects on human health are not caused directly by ROG, but rather by reactions of ROG to form secondary pollutants. ROG are also transformed into organic aerosols in the atmosphere, contributing to higher levels of fine particulate matter and lower visibility. The term ROG is used by the ARB for air quality analysis, and is defined essentially the same as the federal term volatile organic compound (VOC).

Ozone (O₃): O₃ is a secondary pollutant produced through a series of photochemical reactions involving ROG and NO_x. O₃ creation requires ROG and NO_x to be available for approximately three hours in a stable atmosphere with strong sunlight. Because of the long reaction time, peak O₃ concentrations frequently occur downwind of the sites where the precursor pollutants are emitted.

7 A precursor is a directly emitted air contaminant that, when released into the atmosphere, forms, causes to be formed, or contributes to the formation of a secondary air contaminant for which an ambient air standard has been adopted, or whose presence in the atmosphere will contribute to the violation of one or more standards.



Thus, O₃ is considered a regional, rather than a local, pollutant. The health effects of O₃ include eye and respiratory irritation, reduction of resistance to lung infection, and possible aggravation of pulmonary conditions in persons with lung disease. O₃ is also damaging to vegetation and untreated rubber.

4.3.2 Meteorology and Climate

Air quality is affected by both the rate and location of pollutant emissions and by meteorological conditions that influence movement and dispersal of pollutants. Atmospheric conditions such as wind speed, wind direction, and air temperature gradients, along with local topography, provide the link between air pollutant emissions and air quality.

The South Coast Air Basin (SCAB) is a coastal plain with connecting broad valleys and low hills, bounded by the Pacific Ocean to the southwest and high mountains around its remaining perimeter. The general region lies in the semi-permanent high-pressure zone of the eastern Pacific resulting in a mild climate tempered by cool sea breezes with light average wind speeds. The usually mild climatological pattern is interrupted occasionally by periods of extremely hot weather, winter storms, or Santa Ana winds.

The vertical dispersion of air pollutants in the SCAB is hampered by the presence of persistent temperature inversions. An upper layer of dry air that warms as it descends characterizes high-pressure systems, such as the semi-permanent high-pressure zone in which the SCAB is located. This upper layer restricts the mobility of cooler marine-influenced air near the ground surface and results in the formation of subsidence inversions. Such inversions restrict the vertical dispersion of air pollutants released into the marine layer and, together with strong sunlight, can produce worst-case conditions for the formation of photochemical smog.

The atmospheric pollution potential of an area is largely dependent on winds, atmospheric stability, solar radiation, and terrain. The combination of low wind speeds and low inversions produces the greatest concentration of air pollutants. On days without inversions, or on days of winds averaging over 15 miles per hour, smog potential is greatly reduced.

Climatological data were obtained from the Western Regional Climate Center's Cooperative Climatological Data Summaries. The annual average maximum temperature at the nearest National Weather Service Cooperative Observer Program weather station, located at Long Beach Daugherty Field (4.5 miles west of the project site, at 33.81167° N, 118.14639° W), was 74.2 degrees Fahrenheit (°F) and the annual average minimum temperature was 54.8°F during the period of record (1949 to 2016). At the Daugherty Field station,⁸ the average recorded rainfall during the period of record measured 12.01 inches, with 71% of precipitation occurring between November and March. Demonstrating the moderating effect of the Pacific Ocean, the average monthly maximum temperatures only fluctuated 17°F (84°F in August and 67°F in December) and the average monthly minimum temperatures only fluctuated 20°F (65°F in August to 45°F in December).

Winds in the SCAB are generally light, tempered by afternoon sea breezes. Severe weather is uncommon in the Basin, but strong easterly winds known as the Santa Ana winds can reach 25 to 35 miles per hour below the passes and canyons. During the spring and summer months, air pollution is carried out of the region through mountain passes in wind currents or is lifted by the warm vertical currents produced by the heating of the mountain slopes. From the late summer

⁸ <http://www.wrcc.dri.edu/climatedata/climsum/>. Accessed September 8, 2018.



through the winter months, because of the average lower wind speeds and temperatures in the proposed project area and its vicinity, air contaminants do not readily disperse, thus trapping air pollution in the area.

4.3.3 Regional Air Quality

Table 4.3-1 shows the area designation status of the SCAB for each criteria pollutant for both the National Ambient Air Quality Standards (NAAQS) and California Ambient Air Quality Standards (CAAQS). Based on regional monitoring data, the SCAB is currently designated as a non-attainment area for O₃ and PM_{2.5}; a federal maintenance area for CO and NO₂; and an attainment area for PM₁₀ and SO₂.⁹ Designation of the SCAB as a maintenance area means that, although the Basin has achieved compliance with the NAAQS for CO and NO₂, control strategies that were used to achieve compliance must continue. The Federal ozone classification is “extreme.”¹⁰ An extreme non-attainment area has an 8-hour ozone design value of 0.187 ppm,¹¹ and has the attainment deadline of June 15, 2024. On June 26, 2013, the USEPA approved, as a revision to the California State Implementation Plan (SIP), the State's request to re-designate the South Coast Air Basin to attainment for the 24-hour PM₁₀ NAAQS. The USEPA is also approving the PM₁₀ maintenance plan and the associated PM₁₀ motor vehicle emissions budgets for use in transportation conformity determinations necessary for the South Coast PM₁₀ area. Finally, the USEPA approved the attainment year emissions inventory. The USEPA took these actions because the SIP revision meets the requirements of the Clean Air Act (CAA) and USEPA guidance for such plans and motor vehicle emissions budgets.¹²

Table 4.3-1
FEDERAL AND STATE ATTAINMENT STATUS

Pollutants	Federal Classification	State Classification
Ozone (O ₃)	Non-Attainment (Extreme)	Non-Attainment
Particulate Matter (PM ₁₀)	Maintenance (Serious)	Non-Attainment
Fine Particulate Matter (PM _{2.5})	Non-Attainment (Moderate)	Non-Attainment
Carbon Monoxide (CO)	Maintenance (Serious)	Attainment
Nitrogen Dioxide (NO ₂)	Maintenance	Attainment
Sulfur Dioxide (SO ₂)	Attainment	Attainment

Sources:

U.S. Environmental Protection Agency, “Green Book 8-Hour Ozone (2015) Area Information; State/Area/County List.” [https://www3.epa.gov/airquality/greenbook/jnstate.html]. Data is current as of August 31, 2018. Accessed September 8, 2018.

U.S. Environmental Protection Agency, “Green Book PM-10 (1987) Area Information; State/Area/County List.” [https://www3.epa.gov/airquality/greenbook/pbstateb.html]. Data is current as of August 31, 2018. Accessed September 8, 2018.

U.S. Environmental Protection Agency, “Green Book PM-2.5 (2012) Area Information; State/Area/County List.” [https://www3.epa.gov/airquality/greenbook/kbstateb.html]. Data is current as of August 31, 2018. Accessed September 8, 2018.

U.S. Environmental Protection Agency, “Green Book Carbon Monoxide (1971) Area Information; State/Area/County List.” [https://www.epa.gov/green-book/green-book-carbon-monoxide-1971-area-information]. Data is current as of August 31, 2018. Accessed September 8, 2018.

9 According to the SCAQMD, the “Basin has met the PM₁₀ standards at all stations and a request for re-designation to attainment is pending with U.S.EPA.” (SCAQMD Board Meeting, December 7, 2012, Agenda Item 30, p. 6.).

10 <http://www.epa.gov/air/oaqps/greenbook/gnacs.html#CALIFORNIA>. Accessed August 2017.

11 <http://www.epa.gov/air/oaqps/greenbook/define.html>. Accessed August 2017.

12 <http://www.gpo.gov/fdsys/pkg/FR-2013-06-26/html/2013-15145.htm>.



Pollutants	Federal Classification	State Classification
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U.S. Environmental Protection Agency, "Nitrogen Dioxide (1971) Maintenance Area (Redesignated from Nonattainment) State/Area/County Report" Green Book. [<https://www3.epa.gov/airquality/greenbook/nmcs.html>]. Data is current as of August 31, 2018. Accessed September 8, 2018.

California Air Resources Board, "Area Designations Maps/State and National." [www.arb.ca.gov/desig/adm/adm.htm]. Accessed September 8, 2018.

4.3.4 Local Air Quality

The South Coast Air Quality Management District (SCAQMD) has divided the SCAB into source receptor areas (SRAs), based on similar meteorological and topographical features. The proposed project site is located in SRA 17 (Central Orange County), whose air quality is monitored at three stations. The one nearest the site is the South Long Beach Monitoring Station, located at 1305 East Pacific Coast Highway, 6.3 miles northeast of the proposed project site. Only PM₁₀ and PM_{2.5} are monitored at the South Long Beach Site. The nearest monitoring station having O₃ and NO₂ data is the Long Beach (Hudson) Site, located approximately 8.2 miles west-northwest of the proposed project site at 2425 Webster Avenue, Long Beach. CO monitoring in the basin was discontinued in 2012. The ambient air quality data in the proposed project vicinity as recorded at the South Long Beach and 2425 Webster Avenue monitoring stations from 2015 to 2017 and the applicable federal and state standards, are shown in **Table 4.3-2**. Note that, given the complex way in which violation criteria are defined, an exceedance does not necessarily imply a violation of the federal or state ambient air quality standards.

Table 4.3-2
AMBIENT AIR QUALITY MONITORING DATA

Air Pollutant	Standard/Exceedance	2015	2016	2017
Ozone (O ₃) – Long Beach	Max. 1-hour Concentration (ppm)	0.087	0.079	0.082
	Max. 8-hour Concentration (ppm)	0.067	0.059	0.069
	# Days > Federal 8-hour Std. of 0.070 ppm	0	0	0
	# Days > California 1-hour Std. of 0.09 ppm	0	0	0
	# Days > California 8-hour Std. of 0.07 ppm	0	0	0
Nitrogen Dioxide (NO ₂) – Long Beach	Max. 1-hour Concentration (ppm)	0.102	0.076	0.090
	# Days > Federal 1-hour Std. of 0.100 ppm	1	0	0
	# Days > California 1-hour Std. of 0.18 ppm	0	0	0
Respirable Particulate Matter (PM ₁₀) – South Long Beach	Max. 24-hour Concentration (µg/m ³)	62.0	56.0	70.9
	#Days > Fed. 24-hour Std. of 150 µg/m ³	0	0	ND
	#Days > California 24-hour Std. of 50 µg/m ³	2	ND	ND
	Annual Average (µg/m ³)	26.3	ND	ND
Fine Particulate Matter (PM _{2.5}) – South Long Beach	Max. Fed. 24-hour Concentration (µg/m ³)	48.3	28.9	56.3
	State Annual Average (µg/m ³)	13.9	11.6	11.0
	#Days > Fed. 24-hour Std. of 35 µg/m ³	4	0	5
	Federal Annual Average (µg/m ³)	10.2	9.5	11.0

Source:

California Air Resources Board, "iADAM Air Quality Data Statistics." Internet URL: <http://www.arb.ca.gov/adam/> (Accessed September 2018)

ND: There were insufficient (or no) data available to determine the value.



4.3.5 Sensitive Receptors

Some people, such as individuals with respiratory illnesses or impaired lung function because of other illnesses, persons over 65 years of age, and children under 14, are particularly sensitive to certain pollutants. Facilities and structures where these sensitive people live or spend considerable amounts of time are known as sensitive receptors. Land uses identified to be sensitive receptors by the SCAQMD CEQA Handbook include residences, schools, playgrounds, child care centers, athletic facilities, long-term health care facilities, rehabilitation centers, convalescent centers, and retirement homes. Sensitive receptors may be at risk of being affected by air emissions released from the construction and operation of the proposed project.

The proposed project is located at Los Alamitos High School in Los Alamitos, California. Exposure to potential emissions would vary substantially from day to day depending on the amount of work being conducted, the weather conditions, the location of receptors, and the length of time that receptors would be exposed to air emissions. The construction phase emissions estimated in this analysis are based on conservative estimates and worst-case conditions, with maximum levels of construction activity occurring simultaneously within a short period of time. The nearest sensitive receptors to the proposed project site, with the highest potential to be impacted by the proposed project, are the residential properties adjacent to the east and southeast of Los Alamitos High School and the students on the proposed project site itself.

4.3.6 Air Quality Plans

The SCAQMD is required to produce plans to show how air quality will be improved in the region. The California Clean Air Act (CCAA) requires that these plans be updated every three years to incorporate the most recent available technical information.¹³ A multi-level partnership of governmental agencies at the federal, state, regional, and local levels implements the programs contained in these plans. Agencies involved include the USEPA, the ARB, local governments, Southern California Association of Governments (SCAG), and SCAQMD. The SCAQMD and the SCAG are responsible for formulating and implementing the Air Quality Management Plan (AQMP) for the SCAB. The SCAQMD updates its AQMP every three years. The 2016 AQMP was adopted by the SCAQMD Board on March 3, 2016¹⁴ and submitted to the ARB and the USEPA for concurrent review on March 10, 2017.¹⁵ The 2016 AQMP includes a request for reclassification to serious nonattainment for the 2012 Annual PM_{2.5} NAAQS (12 µg/m³) with an attainment date of 2025. It also identifies control measures needed to demonstrate attainment with the 2008 8-hour Ozone NAAQS (75 parts per billion [ppb]) by 2031; the 2006 24-hour PM_{2.5} NAAQS (35 µg/m³) by 2019; the 1997 Ozone NAAQS (80 ppb) by 2023; and the 1979 1-hour Ozone NAAQS (120 ppb) by 2022 in the South Coast Air Basin.

The 2016 AQMP also demonstrates compliance with all applicable Federal Clean Air Act (FCAA) requirements pertaining to nonattainment areas pursuant to the USEPA-approved Implementation Rules, such as the annual average and summer planning emission inventory for criteria and precursor pollutants, attainment demonstrations, reasonably available control measure (RACM) and reasonably available control technology (RACT) analyses, reasonable further progress (RFP), PM

¹³ CCAA of 1988.

¹⁴ <http://www.aqmd.gov/docs/default-source/clean-air-plans/air-quality-management-plans/2016-air-quality-management-plan/final-2016-aqmp/resolution.pdf?sfvrsn=6>

¹⁵ <http://www.aqmd.gov/docs/default-source/clean-air-plans/air-quality-management-plans/2016-air-quality-management-plan/final-2016-aqmp/sipsubmittal.pdf?sfvrsn=6>



precursor requirements, vehicle miles traveled (VMT) demonstrations, and transportation conformity budgets.

4.3.7 Air Quality Thresholds

The significance thresholds for air quality, presented in **Table 4.3-3**, have been established by the SCAQMD for construction and operations daily emissions. During construction or operation, if any of the identified daily air pollutant thresholds is exceeded by the proposed project, then the air quality impacts may be considered significant. The SCAQMD indicates in Chapter 6 of its CEQA Handbook that it considers a project to be mitigated to a level of insignificance if its primary effects are mitigated below the thresholds provided below.

Table 4.3-3
REGIONAL THRESHOLDS OF SIGNIFICANCE

Pollutant	Emissions (pounds per day)	
	Construction	Operations
Reactive Organic Gases (ROG)	75	55
Nitrogen Oxide (NO _x)	100	55
Carbon Monoxide (CO)	550	550
Respirable Particulate Matter (PM ₁₀)	150	150
Fine Particulate Matter (PM _{2.5})	55	55
SO _x	150	150

Source: Air Quality Significance Thresholds. South Coast Air Quality Management District.
Revised March 2015.

The SCAQMD Governing Board adopted a methodology for calculating localized air quality impacts through localized significance thresholds (LSTs), which is consistent with SCAQMD's Environmental Justice Enhancement Initiative I-4. LSTs represent the maximum emissions from a project that will not cause or contribute to an exceedance of the most stringent applicable state or national ambient air quality standard (Chico and Koizumi, 2008). The LSTs are developed based on the ambient concentrations of that pollutant for each source receptor area, and are applicable to NO_x, CO, PM₁₀, and PM_{2.5}.

As noted above, the project site is located in SRA 17. It is assumed that construction will disturb no more than two acres per day and that sensitive receptors are within 25 meters. **Table 4.3-4** shows the appropriate LSTs for construction activity. LSTs for construction emissions only apply to onsite sources.



Table 4.3-4
SCAQMD LOCALIZED THRESHOLDS FOR CONSTRUCTION

Pollutant	Localized Significance Threshold (lbs/day)
Nitrogen Dioxide (NO ₂)	115
Carbon Monoxide (CO)	715
Respirable Particulate Matter (PM ₁₀)	6
Fine Particulate Matter (PM _{2.5})	4

Source: Localized Significance Thresholds. South Coast Air Quality Management District. Revised October 21, 2009.

4.3.8 Impact Analysis

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

Less than Significant Impact

Typically, assessments for air quality plan consistency use four criteria for determining project consistency with the current AQMP. The first and second criteria are from the SCAQMD. According to the SCAQMD, there are two key indicators of AQMP consistency: (1) whether the project would not result in an increase in the frequency or severity of existing air quality violations or cause or contribute to new violations, or delay timely attainment of air quality standards or the interim emission reductions specified in the AQMP; and (2) whether the project will exceed the assumptions in the AQMP based on the year of project build out and phase (SCAQMD, 1993). The third criterion is compliance with the control measures in the AQMP. The fourth criterion is compliance with the SCAQMD regional thresholds.

- *AQMP Assumptions*

One way to assess project compliance with the AQMP assumptions is to ensure that the population density and land use are consistent with the growth assumptions used in the air plans for the air basin. According to ARB transportation performance standards, the rate of growth in VMT and trips should be held to the rate of population growth (SCAQMD, 1993). Compliance with this performance standard is one way suggested by the ARB of showing compliance with the growth assumptions used in the AQMP. If the total VMT generated by the proposed project at build-out is at or below that predicted by the AQMP, then the proposed project's mobile emissions are consistent with the AQMP. It is assumed that the existing and future pollutant emissions computed in the AQMP were based on land uses from area general plans.

As discussed in **Section 4.11**, the project is located within an area designated as Community & Institutional land use on the City of Los Alamitos General Plan Land Use Map (City of Los Alamitos, 2015). It consists of constructing a new three-story, approximately 86,528-gross-square-foot multistory STEM classroom building at Los Alamitos High School in the City of Los Alamitos, California. The proposed project would provide new classroom facilities, while removing existing portable classroom units, to provide an enhanced learning experience for students. The fundamental use of the site will continue to be community and institutional. There will be no more than an incidental change in the number of students, faculty and staff at the high school.



The project is consistent with the policies of the General Plan and is located within a consistent land use designation. Therefore, the project is consistent with the growth assumptions upon which the current AQMP is based and would not conflict with the AQMP. Impacts would be less than significant.

Another measurement tool in evaluating consistency with the AQMP is to determine whether a project would generate population and employment growth and, if so, whether that growth would exceed the growth rates forecasted in the AQMP, and how the project would accommodate the expected increase in population or employment. The proposed project will not induce new residential or employment growth. Therefore, the project would not conflict with or obstruct the implementation of the applicable air quality management plan and would be less than significant.

- *Compliance with Control Measures in the AQMP*

The emissions analysis presented in the next section presumes that the project complies with all applicable SCAQMD rules, such as watering requirements to suppress PM emissions during construction, and use of low-VOC architectural coatings. These rules, in turn, implement the latest AQMP's control measures. Therefore, the project will be in compliance with the control measures in the AQMP.

- *Compliance with SCAQMD Regional Thresholds*

The following analysis demonstrates that construction and operating emissions associated with the Project would be below regional significance thresholds.

Construction

Construction activities would create a temporary addition of pollutants to the local and regional air sheds. An emissions model, CalEEMod Version 2016.3.2, was used to estimate emissions from off-road equipment exhaust and fugitive emissions from demolition and soil disturbance. The model also calculated emissions from on-road vehicle exhaust and entrained road dust generated by employee commuting, vendor activity, and off-hauling of demolition debris. CalEEMod incorporates SCAQMD emission estimation methods for off-road equipment and on-road emission factors from the ARB's EMFAC2014 (v1.0.7) model for applicable calendar years in the Los Angeles County portion of the South Coast Air Basin. Model inputs and results are provided in **Appendix B. Table 4.3-5** shows the results of the CalEEMod analysis. For each criteria pollutant, the maximum daily value is shown in boldface. Emissions of all pollutants would be below their regional significance thresholds for construction.



Table 4.3-5
ESTIMATED CONSTRUCTION EMISSIONS

Construction Phase	Maximum Daily Emissions (lbs)				
	ROG	NO _x	CO	PM ₁₀	PM _{2.5}
Demolition	1.9	18.5	11.2	1.5	1.0
Grading	2.1	22.7	11.6	3.6	2.3
Building Construction	3.4	33.5	23.9	2.2	1.6
Paving	1.3	11.9	13.6	0.9	0.7
Architectural Coatings	13.4	2.7	3.3	0.3	1.2
<i>SCAQMD Daily Regional Threshold</i>	<i>75</i>	<i>100</i>	<i>550</i>	<i>150</i>	<i>55</i>
<i>Exceed Thresholds?</i>	No	No	No	No	No

Source: CalEEMod, Version 2016.3.2. See **Appendix B**.

Because the use of rammed aggregate piers to strengthen the project site soil was uncertain when this analysis was prepared, emissions from that activity were calculated separately. Equipment characteristics and emission factors for the rams were obtained from the USEPA's NONROAD2008a emissions model, as summarized in analysis by Tetra Tech, Inc.¹⁶ Maximum daily criteria pollutant emissions for each ram device would be:

<u>Pollutant</u>	<u>Pounds/Day</u>
ROG	0.3
NO _x	2.7
CO	2.4
PM ₁₀	0.3
PM _{2.5}	0.3

These emissions are for one ram device. Several such devices could operate simultaneously without exceeding the SCAQMD daily regional thresholds.

Operations

The project would relocate various current operations to a single building, while demolishing their former sites. It would not result in a change in the student, faculty, or staff populations. Nevertheless, CalEEMod was used to estimate operational emissions, without taking "credit" for existing emissions that will be discontinued. **Table 4.3-6** shows the results of the calculations. Emissions of all pollutants are below their respective regional significance thresholds.

¹⁶ Air Emission Calculations and Methodology, Virginia Offshore Wind Technology Advancement Project. Prepared by Tetra Tech, Inc., Glen Allen, VA for Dominion, Glen Allen, VA. Revised October 2014. Accessed online at https://www.boem.gov/Renewable-Energy-Program/State-Activities/VA/2013-12-06_Appendix-I_VOWTAP_Air-Emissions-Calculations_FINAL.aspx on August 23, 2019.



Table 4.3-6
MAXIMUM DAILY PROJECT OPERATIONAL EMISSIONS

Emission Source	Pollutant (pounds/day)				
	ROG	NO _x	CO	PM ₁₀	PM _{2.5}
Area Source Emissions	1.94	0.00009	0.009	0.00005	.00005
Energy Source Emissions	0.03	0.28	0.23	0.02	.0209
Mobile Source Emissions	2.15	11.58	31.50	10.22	2.80
Total Operational Emissions	4.1	11.9	31.7	10.2	2.8
SCAQMD Significance Thresholds	55	55	550	150	55
Significant? (Yes or No)	No	No	No	No	No

Source: Calculated by UltraSystems with CalEEMod (Version 2016.3.2). See Appendix B.

- b) **Would the project result in a cumulatively considerable net increase of any criteria pollutant for which the project region is non-attainment under an applicable federal or state ambient air quality standard?**

Less than Significant Impact

According to the CEQA Guidelines, a lead agency may determine that a project's incremental contribution to a cumulative effect is not cumulatively considerable if the project will comply with the requirements in a previously-approved air quality attainment or maintenance plan.¹⁷ As described above in **4.3 a)**, the project would not exceed any of the SCAQMD daily criteria pollutant thresholds. In general, cumulative *regional* impacts of construction and operation of all projects in the SCAB at any given time are accounted for in the AQMP. The proposed project is compliant with the AQMP so the incremental contribution of the project would not be cumulatively considerable. The only cumulative impacts with the potential for significance would be localized impacts during construction. The analysis in **4.3 c)** below shows that localized impacts from the project would be less than significant and therefore would not contribute to a cumulative impact.

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

Less than Significant Impact

As discussed in **Section 4.3-7**, only construction emissions from activity on the construction site are considered when comparing to the LST thresholds. As shown in **Table 4.3-7**, all onsite construction emissions associated with the project would be below the LST thresholds. For the reason presented earlier, the table does not include emissions from construction of rammed aggregate piers. However, even if the RAP emissions were added to those in **Table 4.3-7**, the LST thresholds would not be exceeded.

¹⁷ CEQA Guidelines, § 15064(h)(3).



Table 4.3-7
ESTIMATED ONSITE CONSTRUCTION EMISSIONS

Construction Phase	Maximum Daily Emissions (lbs)				
	ROG	NO _x	CO	PM ₁₀	PM _{2.5}
Demolition	1.8	17.3	10.5	1.3	0.9
Grading	2.1	22.7	11.1	3.5	2.3
Building Construction	3.1	30.5	21.7	1.6	1.5
Paving	1.2	11.8	12.9	0.7	0.6
Architectural Coating	13.3	2.7	3.0	0.2	0.2
<i>SCAQMD LST Threshold</i>	<i>N/A</i>	<i>115</i>	<i>715</i>	<i>6</i>	<i>4</i>
<i>Exceed Thresholds?</i>		<i>No</i>	<i>No</i>	<i>No</i>	<i>No</i>

Source: UltraSystems Analysis, May, 2019.

During construction, diesel equipment would be operating. Diesel particulate matter (DPM) is known to the State of California as a toxic air contaminant (TAC). Evaluation of the risks associated with exposure to substances with carcinogenic effects, such as DPM, is typically based on a lifetime of chronic exposure, which is defined in the California Air Pollution Control Officers' Association Air Toxics "Hot Spots" Program Risk Assessment Guidelines (CAPCOA, 2016) as 24 hours per day, 7 days per week, 365 days per year, for 70 years. DPM would be emitted during the short term of construction assumed for the proposed project from heavy equipment used in the construction process. Due to the short-term nature of project construction, impacts from exposure to diesel exhaust emissions during construction would be less than significant.

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

Less than Significant Impact

The CEQA guidelines indicate that a significant impact would occur if the proposed project would create objectionable odors affecting a substantial number of people. Diesel exhaust and VOCs, whose odors are objectionable to some, will be emitted during construction of the proposed project; however, emissions will disperse rapidly from the project site and the activity would be temporary. Impacts due to objectionable odors would be less than significant.



- e) **Is the boundary of the proposed school site within 500 feet of the edge of the closest traffic lane of a freeway or busy traffic corridor? If yes, would the project create an air quality health risk due to the placement of the school?**

No Impact

The nearest freeway, Interstate I-605, is approximately 0.7 mile west of the project site and there are no other busy corridors, as defined by the State Education Code¹⁸ as urban roadways with greater than 100,000 average daily traffic (ADT). Los Alamitos High School, including the facilities being replaced by the project, has been located at this site since its original construction. There would be no change in the distance to freeways or busy traffic corridors. Therefore, the project would create no additional health risk from proximity to mobile sources.

- f) **Would the project create an air quality hazard due to the placement of a school within one-quarter mile of: (i) permitted and non-permitted facilities identified by the jurisdictional air quality control board or air pollution control district; (ii) freeways and other busy traffic corridors; (iii) large agricultural operations; and/or (iv) a rail yard, which might reasonably be anticipated to emit hazardous air emissions?**

No Impact

- i. A search of the SCAQMD's Facility Information Detail (FIND) online database¹⁹ found no air toxics emission sources within 0.25 mile of the school. Therefore, the proposed project would not be exposed to significant emissions of hazardous air pollutants from a facility regulated by the SCAQMD.
- ii. The nearest freeway, Interstate I-605, is approximately 0.7 mile west of the project site and there are no urban roadways with greater than 100,000 average daily traffic (ADT). Los Alamitos High School, including the facilities being replaced by the project, has been located at this site since its original construction. There would be no change in the distance to freeways or busy traffic corridors. Therefore, the project would create no additional health risk from proximity to hazardous emissions from mobile sources.
- iii. The project site is in an urban area, and is not near any agricultural operations. Therefore, the proposed project would not be exposed to hazardous air emissions from a large agricultural operation.
- iv. The project site is not near a rail yard. Therefore, the proposed project would not be exposed to hazardous air emissions from operations at a large rail yard.

¹⁸ Title 1, Division 1, Part 10.5, Chapter 1, Section 17213(d)

¹⁹ <http://www3.aqmd.gov/webappl/fim/prog/search.aspx>. Accessed August 2, 2017.



4.4 Biological Resources

Would the project:	Potentially Significant Impact	Less than Significant Impact 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?		X		
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?				X
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?				X
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?				X
e) Conflict with any local policies or ordinances protecting biological resources, such as a tree preservation policy or ordinance?				X
f) Conflict with the provisions of an adopted Habitat Conservation Plan, Natural Community Conservation Plan, or other approved local, regional, or state habitat conservation plan?				X

4.4.1 Methodology

An UltraSystems biologist researched readily available information, including relevant literature, databases, agency web sites, various previously completed reports and management plans, GIS data,



maps, aerial imagery from public domain sources, and in-house records to: 1) assess habitats, special-status plant and wildlife species, jurisdictional waters, critical habitats, and wildlife corridors that may occur in and near the project site, and 2) identify local or regional plans, policies, and regulations that may apply to the project. Plant and wildlife species protected by federal agencies, state agencies, and nonprofit resource organizations, such as the California Native Plant Society (CNPS), are collectively referred to as “special-status species”.²⁰ Some of these plant and wildlife species are afforded special legal or management protection because they are limited in population size, and typically have a limited geographic range and/or habitat. The following data sources were accessed:

- United States Geological Survey (USGS) 7.5-Minute Topographic Map Los Alamitos Quadrangle (USGS, 2015) and current aerial imagery (Google Earth Pro, 2018).
- California Natural Diversity Database (CNDDB, 2019) provided by the California Department of Fish and Wildlife (CDFW).
- Information, Planning and Conservation (IPaC) provided by the United States Fish and Wildlife Service (USFWS) (USFWS, 2019a).
- Inventory of Rare and Endangered Plants of California provided by the California Native Plant Society (CNPS) (CNPS, 2019).
- National Wetlands Inventory (NWI) and Wetlands Mapper provided by the USFWS (USFWS, 2019b).
- National Hydrography Dataset (NHD) provided by the USGS (USGS, 2018).
- Critical Habitat Portal provided by the USFWS (USFWS, 2019c).

Aerial imagery from the above-mentioned sources was overlaid with geospatial data by utilizing Geographic Information System (GIS) software (ArcGIS 10.1) to identify: 1) the presence and geographic range of candidate, sensitive, or special-status species and potentially suitable habitats, and 2) proposed and final critical habitats, wetlands, waters of the State (WOS), and waters of the United States (WOUS), in the vicinity of the project site.

4.4.2 Impact Analysis

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

Less Than Significant Impact with Mitigation Incorporated

The project site is located within an existing school campus, in an urbanized area. The school campus contains existing classrooms, administrative buildings, and gymnasium, a 25-meter long pool, sport fields, landscaping, and paved surfaces including walkways and parking lots. The existing onsite vegetation consists of turf grass field and non-native trees/ornamental shrub species that do not

²⁰ Avian species protected by the Migratory Bird Treaty Act (MBTA) are not considered “special-status species.”



support sensitive habitats and provide low habitat value for special-status species. According to a literature review, including the assessment of site photographs, the project lacks suitable soils, biological resources, and physical features to support special-status plant or wildlife species on the project site or in the project vicinity.

The proposed project would involve demolition of the existing Administration and Media Center buildings and associated infrastructure, landscaping, and utilities. Coyote Creek Channel is located west of the high school campus and Carbon Creek Channel is located to the north. Coyote Creek Channel discharges into Carbon Creek Channel near the northwest corner of the Los Alamitos High School campus. Coyote and Carbon Creek Channels may be used by riparian-dependent species, shorebirds, and waterfowl; however, the habitat is of very low quality and, except during the rainy season, water flow within these channels is dependent upon urban discharge. Construction of the proposed project would occur near the southern border of the campus approximately 0.25-mile from both channels. As described in **Section 4.9**, stormwater runoff leaving the campus and project site do not enter either Carbon Creek Channel or Coyote Creek Channel. Therefore, no impacts to sensitive habitat, or to sensitive plant and wildlife species are anticipated.

The project would remove existing shrubs and trees on site as part of construction for the proposed project. With the implementation of mitigation measure **(MM) BIO-1**, impacts to native bird species protected under the Migratory Bird Treaty Act (MBTA) and the California Fish and Game Code would be reduced to a less than significant level. Therefore, with mitigation, the proposed project would not have substantial adverse effect, either directly or through habitat modifications, to habitat, plant and wildlife species and less than significant impacts would occur.

MM BIO-1 If project construction occurs between February 1 to September 31, a qualified biologist shall conduct a preconstruction nesting bird survey no earlier than one week prior to construction. If the nests are still occupied, a buffer of 200 feet shall be maintained around any active nest, and the avian biologist shall visit the site once a week, until the avian biologist can determine that the young have fledged or the nest has become inactive.

Level of Significance After Mitigation

After the implementation of **MM BIO-1**, potential project impacts to native bird species protected under the Migratory Bird Treaty Act (MBTA) and the California Fish and Game Code species would be reduced to a less than significant level.

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

No Impact

No riparian habitat or other sensitive natural communities were found within the project site. West of the campus is Coyote Creek Channel and north of the campus is Carbon Creek Channel. These channels do not contain riparian or other vegetation to support sensitive natural communities. Therefore, the project is not anticipated to have direct or indirect impacts on riparian habitats or other sensitive natural communities and have no substantial adverse effect on any riparian habitat



or other sensitive natural community identified in local or regional plans, policies, regulations, or by CDFW or USFWS.

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

No Impact

No wetlands are located on the project site or in the project vicinity; therefore, the project is not anticipated to have direct or indirect impacts on federally protected wetlands as defined by § 404 of the Clean Water Act (CWA). Similarly, the proposed project is not anticipated to result in adverse effects to non-wetland waters of the U.S. (i.e., Carbon Canyon Creek Channel and Coyote Creek Channel) as defined by § 404 CWA, because stormwater leaving the project site discharges into Los Alamitos Channel, bypassing both Carbon Canyon Creek Channel and Coyote Creek Channel.

Therefore, the project is not anticipated to result in substantial adverse effects to federally protected wetlands and other waters of the U.S. through direct removal, filling, hydrological interruption, or other means.

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

No Impact

According to the literature review and project site photos, the existing campus does not function as a wildlife movement corridor. The project site does not contain wildlife travel routes, such as a riparian strip, ridgeline, drainage, or wildlife crossings such as a tunnel, culvert, or underpass. Coyote Creek Channel and Carbon Creek Channel, each located approximately 0.25 mile from the project site, could serve as wildlife corridors for riparian-dependent species, shorebirds, and waterfowl and may provide limited habitat for other terrestrial species. However, neither of those creeks contain considerable continuous water flow and vegetation to support substantial movement of any native resident fish or wildlife species. However, common wildlife species such as coyotes, northern raccoons, striped skunks, and Virginia opossums could be expected to travel within areas surrounding the project site.

The project site and adjacent areas do not support resident or migratory fish species or wildlife nursery sites. No established resident or migratory wildlife corridors occur within the project site. Therefore, the project would not interfere substantially with or impede 1) the movement of any native resident or migratory fish or wildlife species, 2) established native resident or migratory wildlife corridors, or 3) the use of native wildlife nursery sites. No impacts are anticipated.

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

No Impact

The existing school campus is located in a developed urban area and contains trees or shrubs on private property. Existing trees, plants, and bushes would be removed as part of the proposed



❖ SECTION 4.4 - BIOLOGICAL RESOURCES ❖

project; however, this would not conflict with local policies or ordinances protecting biological resources because it would not conflict with Chapter 12.24, City Parkway Trees, of the City of Los Alamitos Municipal Code. This Chapter of the Municipal Code protects trees in City parkways; however, the trees that would be removed as part of the project are not located within a City parkway. Therefore, the project would not conflict with any local policies or ordinances protecting biological resources, and no impacts would occur.

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

No Impact

The project site is located within the densely developed City of Los Alamitos, and is not located in an area covered by a Habitat Conservation Plan (HCP), Natural Community Conservation Plan (NCCP) or other approved HCP. Therefore, the project would not conflict with the provisions of an adopted HCP, NCCP, or other approved local, regional, or state HCP. No impact would occur.



4.5 Cultural Resources

Would the project:	Potentially Significant Impact	Less than Significant Impact 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?				X
b) Cause a substantial adverse change in the significance of an archaeological resource pursuant to § 15064.5?		X		
c) Disturb any human remains, including those interred outside of formal cemeteries?		X		

4.5.1 Methodology

A cultural resources analysis was conducted for the Los Alamitos High School project site (refer to **Figure 4.5-1**), including a California Historic Resources Inventory System (CHRIS) records search and literature search at the South Central Coastal Information Center (SCCIC) located at California State University, Fullerton. The cultural resources analysis report is provided as **Appendix C**. The report included a search by the Native American Heritage Commission (NAHC) of their Sacred Lands File (SLF) for potential traditional cultural properties, as well their list of local Native American tribes and tribal representatives to contact. The SCCIC records search was conducted on June 19, 2018. The NAHC request was made on November 30, 2018 and a reply was received on December 18, 2018; letters were sent to the listed tribes on December 19, 2018 and follow-up telephone calls were conducted on January 25, 2019. A pedestrian field survey was conducted on January 18, 2019.

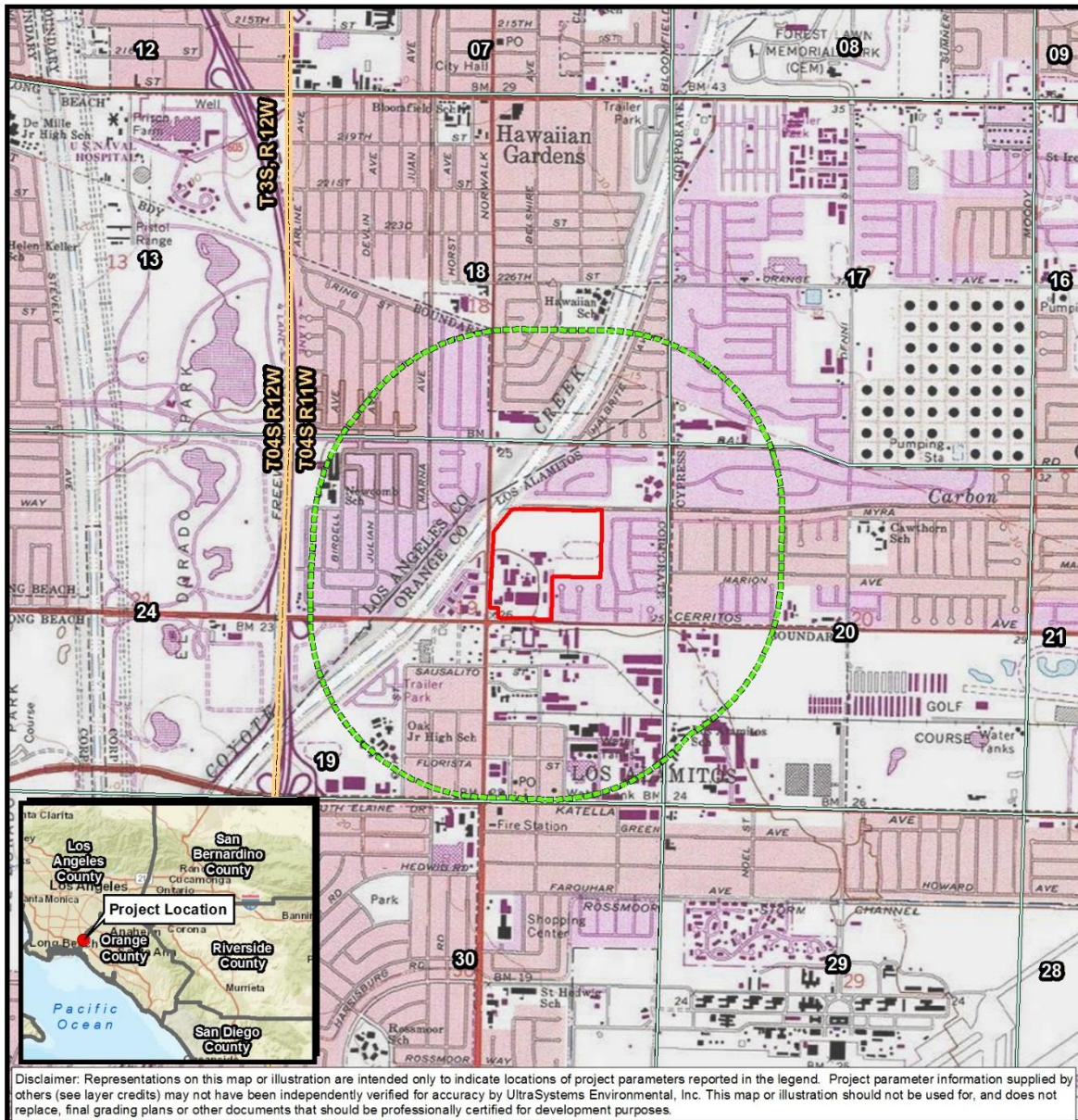
a) Would the project cause a substantial adverse change in the significance of a historical resource pursuant to § 15064.5?

No Impact

Based on the cultural resources records search conducted at the SCCIC, no historical resources have been recorded within the project's Area of Potential Effect (APE) boundary (refer to **Figure 4.5-1**). Based on the results of the record search, two historic-era cultural resource sites were recorded within the half mile radius buffer zone of the APE. These occur to the east and southeast of the project APE. These resources consist of mid-20th century schools, World War II-era structures, and include the Newcomb Academy (19-189924) and Oak Middle School (30-177412). As no historical resources have been recorded within the project's APE boundary, no impacts on historical resources are anticipated.



**Figure 4.5-1
TOPOGRAPHIC MAP**



Path: J:\Projects\6090_LosAl_MultiStory_Building\MXDs\IS_MND\6090_LosAl_MS_Building_4.5_Topo_2019_02_11.mxd
Service Layer Credits: Sources: Esri, HERE, DeLorme, USGS, Intermap, INCREMENT P, NRCan, Esri Japan, METI, Esri China (Hong Kong), Esri Korea, Esri (Thailand), MapmyIndia, NGCC, © OpenStreetMap contributors, and the GIS User Community, Copyright © 2013 National Geographic Society, i-cubed, Teale Data Center GIS Solutions

February 11, 2019





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

Less than Significant Impact with Mitigation Incorporated

An archaeological resource is defined in § 15064.5(c) of the CEQA Guidelines as a site, area or place determined to be historically significant as defined in § 15064(a) of the CEQA Guidelines, or as a unique archaeological resource defined in § 21083.2 of the Public Resources Code as an artifact, object, or site that contains information needed to answer important scientific research questions of public interest or that has a special and particular quality such as being the oldest or best example of its type, or that is directly associated with a scientifically recognized important prehistoric or historic event or person.

The proposed project would include excavation into previously undisturbed native soils, as the project includes the demolition of the existing Administration and Media Center building and associated infrastructure, landscaping, and utilities and construction of a new multistory building. It is unlikely that undisturbed unique archeological resources exist on the project site, as determined by the cultural resources investigation conducted by UltraSystems which included a CHRIS records search of the project site and buffer zone, a search of the SLF by the NAHC, and pedestrian field survey.

As detailed in the records at the SCCIC, there have been no previous cultural resource surveys that included a portion of the project area and five surveys within a half mile radius project buffer but not within the project APE (see **Appendix C**). As noted above, none of these surveys recorded prehistoric or historic cultural resources within the project boundary.

A NAHC SLF search was conducted on and within a half mile buffer around the project site. The NAHC letter indicated that no records exist documenting the presence of traditional cultural properties within this area. Tribal representatives of five Native American tribes were contacted requesting a reply if they have knowledge of cultural resources in the area that they wished to share, and asking if they had any questions or concerns regarding the project. These tribes included:

- Gabrielino Tongva Indians of California Tribal Council
- Gabrielino/Tongva San Gabriel Band of Mission Indians
- Gabrieleno Band of Mission Indians - Kizh Nation
- Gabrielino /Tongva Nation
- Gabrielino-Tongva Tribe

There have been two responses. The first was from the Gabrieleno Band of Mission Indians - Kizh Nation, indicating that their tribe has a sacred land file (site) adjacent to this project, but did not state the nature or actual location of the traditional site. Chairman Salas of the Gabrieleno-Kizh Nation also sent an email requesting that UltraSystems provide them with the lead agency's (District) contact information as the tribe would like to consult directly with the District per Assembly Bill 52. The Gabrielino-Kizh Nation's Administrative Specialist also contacted UltraSystems and stated again that they wish to consult with the lead agency if there would be any ground disturbance taking place. The District contact information was provided to the tribe, and the District was informed of the Gabrielino-Kizh Nation's desire for consultation. This request was forwarded to the Los Alamitos School District as this was a request for AB 52 consultation.

The second response was received from the Gabrieleno/Tongva San Gabriel Band of Mission Indians indicating that the area around the project area is culturally sensitive with Native American



landmarks, such as the San Gabriel River to the south. Their chairperson, Mr. Anthony Morales, requested that a Native American and Archaeological monitor be present during ground disturbing activity, preferably using monitors from the Gabrieleno/Tongva San Gabriel Band of Mission Indians.

The result of the pedestrian survey was negative for both prehistoric and historic sites and isolates on the project site. Based on the results of the records search, tribal consultation, and the onsite field survey, it is unlikely that cultural resources or tribal resources would be adversely affected by construction of the project.

However, grading activities associated with development of the project would cause new subsurface disturbance and could result in the unanticipated discovery of unique archeological resources.

Mitigation Measures

MM CUL-1: If historical or unique archaeological resources are discovered during construction activities, the contractor shall halt construction activities in the immediate area and notify the Los Alamitos Unified School District. The on-call qualified archaeologist shall be notified and afforded the necessary time to recover, analyze, and curate the find(s). The qualified archaeologist shall recommend the extent of archaeological monitoring necessary to ensure the protection of any other resources that may be in the area and afforded the necessary time and funds to recover, analyze, and curate the find(s). Construction activities may continue on other parts of the project site while evaluation and treatment of historical or unique archaeological resources takes place.

MM CUL-2: If a local Native American tribal organization(s) request that a tribal representative and/or a qualified archaeologist monitor construction at the project location, then the project proponent shall retain and schedule any required monitors during all monitored excavations. At the discretion of the monitoring archaeologist, excavation or other ground-disturbing activities must be halted when an archaeological artifact or feature is observed. Native American monitors will be required to complete and submit daily monitoring logs to the project proponent's lead archaeologist while at the project site.

Level of Significance after Mitigation

With implementation of mitigation measures **CUL-1** and **CUL-2**, potential impacts on archaeological resources would be reduced to a less than significant level.

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

Less than Significant Impact with Mitigation Incorporated

The proposed project would be located on a site that has been graded and has been in use since the mid-1970s. During previous ground disturbance activities, no human remains were identified or recorded onsite. In the unlikely event that human remains are discovered, during precise grading or construction activities, the project would be subject to California Health and Safety Code § 7050.5, CEQA § 15064.5, and California Public Resources Code § 5097.98.



❖ SECTION 4.5 - CULTURAL RESOURCES ❖

California Health and Safety Code § 7050.5 identifies procedures for the unlikely discovery of human remains. CEQA § 15064.5 indicates the process for determining the significance of impacts on archeological and historical resources. California Public Resources Code § 5097.98 stipulates the notification process during the discovery of Native American human remains, descendants, disposition of human remains, and associated artifacts.

Mitigation Measure

MM CUL-3: If human remains are encountered during excavations associated with this project, all work shall stop within a 30-foot radius of the discovery and the Orange County Coroner will be notified (§ 5097.98 of the Public Resources Code). The Coroner will determine whether the remains are recent human origin or older Native American ancestry. If the coroner, with the aid of the supervising archaeologist, determines that the remains are prehistoric, they will contact the NAHC. The NAHC will be responsible for designating the Most Likely Descendant (MLD). The MLDS (either an individual or sometimes a committee) will be responsible for the ultimate disposition of the remains, as required by § 7050.5 of the California Health and Safety Code. The MLD will make recommendations within 24 hours of their notification by the NAHC. These recommendations may include scientific removal and nondestructive analysis of human remains and items associated with Native American burials (§ 7050.5 of the Health and Safety Code).

Level of Significance after Mitigation

In the unlikely event of an unexpected discovery, implementation of **MM CUL-3** and adherence to all applicable codes and regulations would ensure that impacts related to the accidental discovery of human remains would be less than significant.



4.6 Energy

Would the project:	Potentially Significant Impact	Less than Significant Impact 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?			X	
b) Conflict with or obstruct a state or local plan for renewable energy or energy efficiency?			X	

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

and

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

Less than Significant Impact

According to the CEQA Guidelines, “uses of nonrenewable resources during the initial and continued phases of the project may be irreversible since a large commitment of such resources makes removal or nonuse thereafter unlikely. Primary impacts and, particularly, secondary impacts (such as highway improvement that provides access to a previously inaccessible area) generally commit future generations to similar uses. Also, irreversible damage can result from environmental accidents associated with the project. Irretrievable commitments of resources should be evaluated to assure that such current consumption is justified.” Therefore, the purpose of this analysis is to identify any significant irreversible environmental effects of project implementation that cannot be avoided.

Both construction and operation of the project would lead to the consumption of limited, slowly renewable, and non-renewable resources, committing such resources to uses that future generations would be unable to reverse. The new development would require the commitment of resources that include: (1) building materials; (2) fuel and operational materials/resources; and (3) the transportation of goods and people to and from the project.

During project construction, energy would be consumed in the form of electricity associated with the conveyance of water used for dust control and, on a limited basis, powering lights, electronic equipment, or other construction activities necessitating electrical power. Construction activities, including the construction of the proposed new STEM building, typically do not involve the consumption of natural gas. Project construction would also consume energy in the form of petroleum-based fuels associated with the use of off-road construction vehicles and equipment on the project site, construction worker travel to and from the project site, and delivery and haul truck



trips hauling solid waste from and delivering building materials to the project site. During project operation, energy would be consumed for multiple purposes, including heating, air conditioning, appliances, and use of electronics. Energy would also be consumed during project operations related to water usage, solid waste disposal, and vehicle trips. Estimated project operation total and per-capita²¹ energy usage, which was estimated by CalEEMod as part of the greenhouse gas emissions analysis,²² is shown in **Table 4.6-1**. Vehicle miles traveled (VMT) were used as a surrogate for energy from consumption of transportation fuels. While a variety of factors govern the relationship between VMT and fuel energy, in general, an increase in VMT results from an increase in motor vehicle energy use. Note that the table does not include energy use by existing buildings and activities; to obtain a conservative estimate of energy use impact, existing use was assumed to be zero.

The new building will be designed and built in compliance with the California Green Building Standards (CAL Green) Code (California Code of Regulations, Title 24, Part 11), which includes mandatory measures for nonresidential site development, energy efficiency, water efficiency and conservation, material conservation and resource efficiency, and environmental quality (CBSC, 2017, p.2).

In the interest of energy efficiency, the building is being designed to accept solar panels and battery storage, in addition to high-efficiency HVAC systems. This will assist in increasing reliance on renewable energy resources and decreasing reliance on natural gas and oil. Therefore, the energy usage of the new building will be substantially lower than it would be in absence of the Green Code. Additionally, the project would comply with all applicable regulations and codes which require achievement of various levels of energy efficiency in building construction, design and operation.

The commitment of resources required for the construction and operation of the project would limit the availability of such resources for future generations or for other uses during the life of the project. However, the use of such resources would be reduced when compared to what they would be in the absence of complying with the CAL Green Code. Therefore, energy consumption would not result in a substantial increase in energy production for energy providers and the energy demand associated with the project would be less than significant.

Table 4.6-1
ESTIMATED PROJECT OPERATIONAL ENERGY USE

Energy Type	Units	Value	Per Capita
Onroad Motor Vehicle Travel	Vehicle Miles Traveled per Year	3,727,712	1,104
Natural Gas Use	1,000 BTU per year	1,024,490	297
Electricity Use	Kilowatt-hours per year	526,090	156

21 The divisor for the per capita calculations is 3,235 students + 140 faculty and staff = 3,375 persons.

22 See **Section 4.8** (Greenhouse Gas Emissions).



4.7 Geology and Soils

Would the project:	Potentially Significant Impact	Less than Significant Impact 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.			X	
ii) Strong seismic ground shaking?			X	
iii) The construction, reconstruction, or relocation of any school building on a site subject to moderate-to-high liquefaction?			X	
iv) The construction, reconstruction, or relocation of any school building on a site subject to landslides?				X
b) Result in substantial soil erosion or the loss of topsoil?			X	
c) Be located on a geologic unit or soil that is unstable, or that would become unstable as a result of the project, and potentially result in on- or off-site landslide, lateral spreading, subsidence, liquefaction or collapse?			X	
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?			X	
e) Have soils incapable of adequately supporting the use of septic tanks or alternative waste water disposal systems where sewers are not available for the disposal of waste water?				X
f) Would the project directly or indirectly destroy a unique paleontological resource or site or unique geologic feature?		X		



- a) **Would the project directly or indirectly cause potential substantial adverse effects, including the risk of loss, injury, or death involving:**
- i) **Rupture of a known earthquake fault, as delineated on the most recent Alquist-Priolo Earthquake Fault Zoning Map issued by the State Geologist for the area or based on other substantial evidence of a known fault? Refer to Division of Mines and Geology Special Publication 42.**

Less than Significant Impact

In California, an “Alquist-Priolo Earthquake Fault Zone” (formerly Special Study Zone) is a seismic hazard area that varies in width, but averages approximately 0.25 mile around active faults. A fault is a fracture in the crust of the earth, where the rock mass on one side moves relative to the rock mass on the other side. Most faults are the result of repeated displacements over a long period of time. A fault trace is the line on the land surface defining the fault that can be delineated on a map. Surface rupture occurs when movement on a fault occurs at the surface. These faults may pose a risk of rupture to existing or future structures.

The Alquist-Priolo Earthquake Fault Zoning Act was passed in 1972 to mitigate the hazard of surface faulting to structures for human occupancy. This law was a direct result of the 1971 San Fernando Earthquake, which was associated with extensive surface fault ruptures that damaged numerous homes, commercial buildings, and other structures. Surface rupture is the most easily avoided seismic hazard. For the purposes of the Act, an active fault is one that has ruptured in the last 11 thousand years (Holocene time), and a potentially active fault is one that has ruptured in the last 1.6 million years (Pleistocene time). The law requires the State Geologist to establish regulatory zones (Earthquake Fault Zones), and prepare maps showing surface traces of active faults.

The proposed project site is not within a designated State of California Alquist-Priolo Earthquake Fault Zone, or within an area designated as a seismic hazard zone (Terracon, 2018, p. 7). The nearest zoned fault segment is in the Newport-Inglewood Fault Zone located approximately 6 kilometers southwest of the site. No known active or potentially active faults trend toward or through the project site (refer to **Figure 4.7-1** and **Figure 4.7-2**). For these reasons, impacts from rupture of a known earthquake fault during the life of the project would be less than significant.

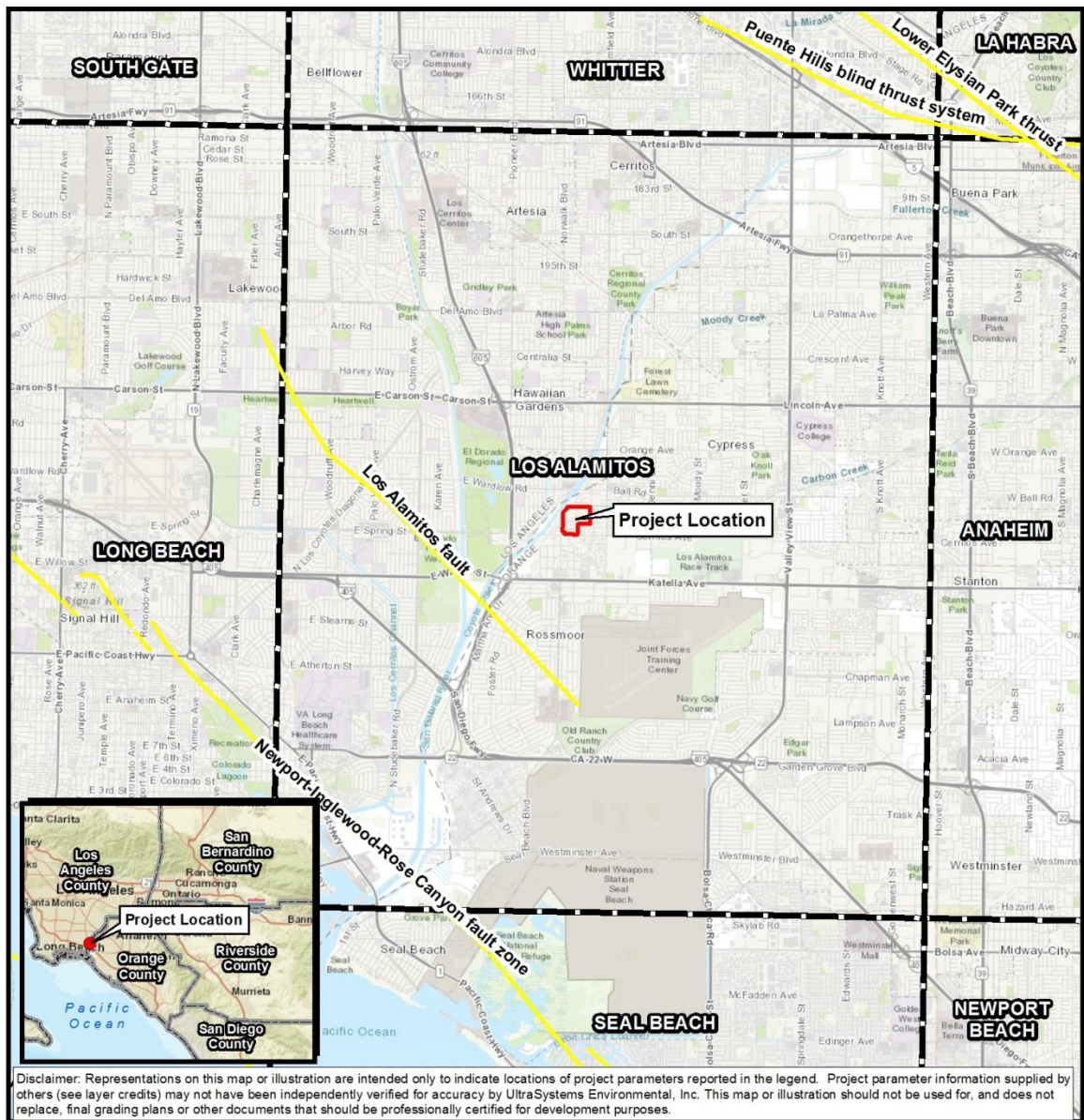
- ii) **Strong seismic ground shaking?**

Less than Significant Impact

The site is located in Southern California, which is a seismically active area. The type and magnitude of seismic hazards affecting the site are dependent on the distance to causative faults, the intensity, and the magnitude of the seismic event. The Newport-Inglewood fault zone is the nearest active fault system to the site (**Figures 4.7-1** and **4.7-2**). The Newport-Inglewood fault zone displays right-lateral strike-slip relative movement and lies approximately 3.5 miles southwest of the project site. The most significant recent movement of the Newport-Inglewood fault zone with no apparent surface rupture occurred during the March 11, 1933 Moment Magnitude 6.4 earthquake; the epicenter of this earthquake is located about 12 miles southeast of the project site in the City of Long Beach.



Figure 4.7-1
REGIONALLY ACTIVE FAULTS



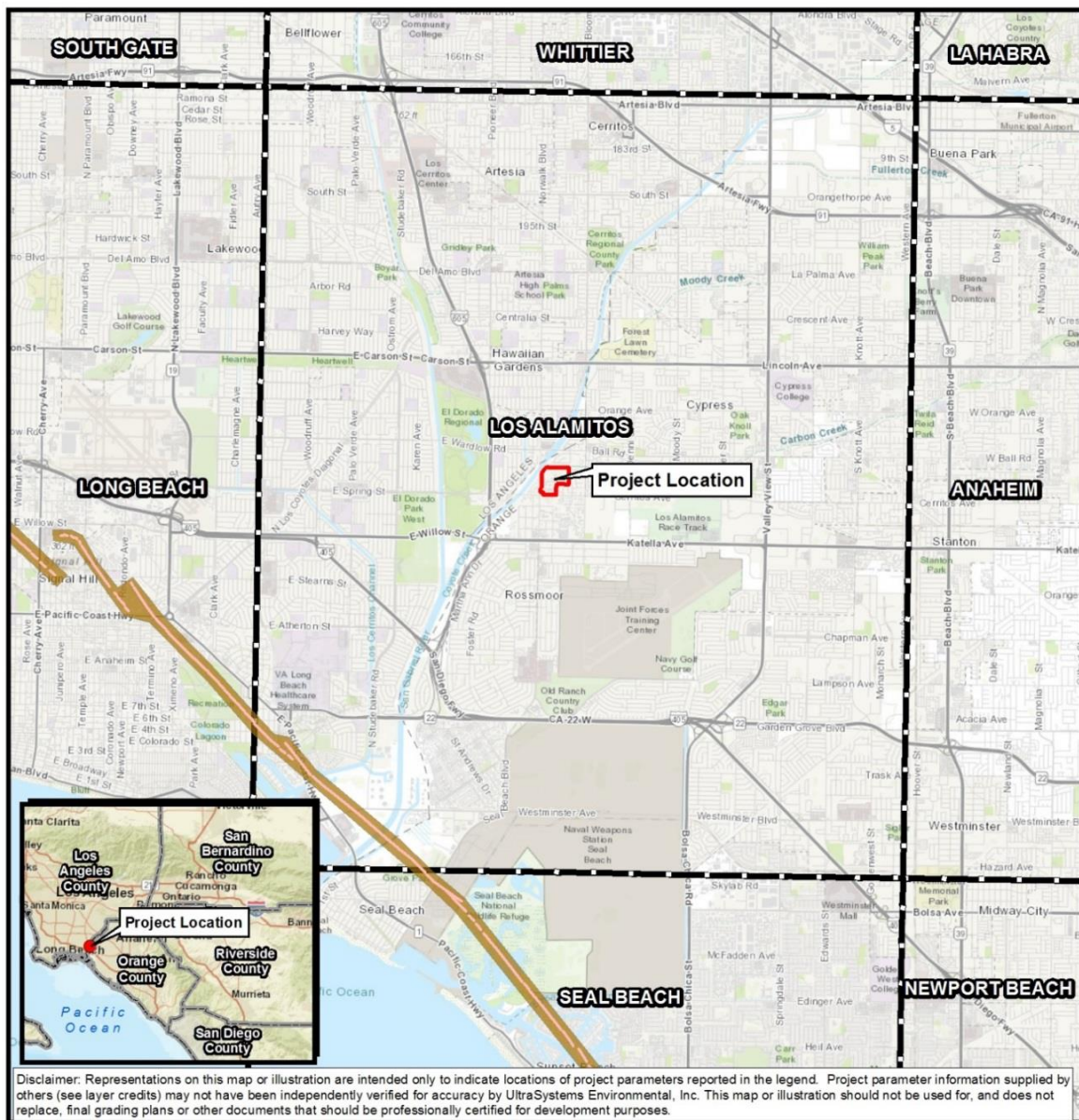
Disclaimer: Representations on this map or illustration are intended only to indicate locations of project parameters reported in the legend. Project parameter information supplied by others (see layer credits) may not have been independently verified for accuracy by UltraSystems Environmental, Inc. This map or illustration should not be used for, and does not replace, final grading plans or other documents that should be professionally certified for development purposes.

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Figure 4.7-2
ALQUIST-PRIOLO EARTHQUAKE FAULT ZONES.



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The proposed multistory STEM classroom building would be constructed in accordance with applicable California Building Code (CBC) (Title 24, Part 2, California Code of Regulations) adopted by the legislature and used throughout the state, and requirements from State of California's Department of General Services, Division of the State Architect (DSA).

The CBC provides minimum standards to protect property and the public welfare by regulating the design and construction of excavations, foundations, building frames, retaining walls, and other building elements to mitigate the effects of seismic shaking and adverse soil conditions. The CBC contains provisions for earthquake safety based on factors including occupancy type, the types of soil and rock onsite, and the strength of ground motion with specified probability of occurring at the site. It requires the preparation of project-specific geotechnical reports prepared by a Certified Engineering Geologist or Geotechnical Engineer prior to construction of proposed structures. A project-specific geotechnical investigation report has been prepared for the proposed project (refer to **Appendix D** of this document). Site-specific recommendations provided in the geotechnical report including seismic induced settlement and static settlement, would be incorporated into project plans that are reviewed by the DSA for the proposed school construction project prior to approval of construction plans. The proposed building would also be inspected and signed off in the field by a certified DSA inspector to ensure that these requirements are implemented. Therefore, impacts from strong seismic ground shaking would be less than significant.

iii) Seismic-related ground failure, including liquefaction?

Less than Significant Impact

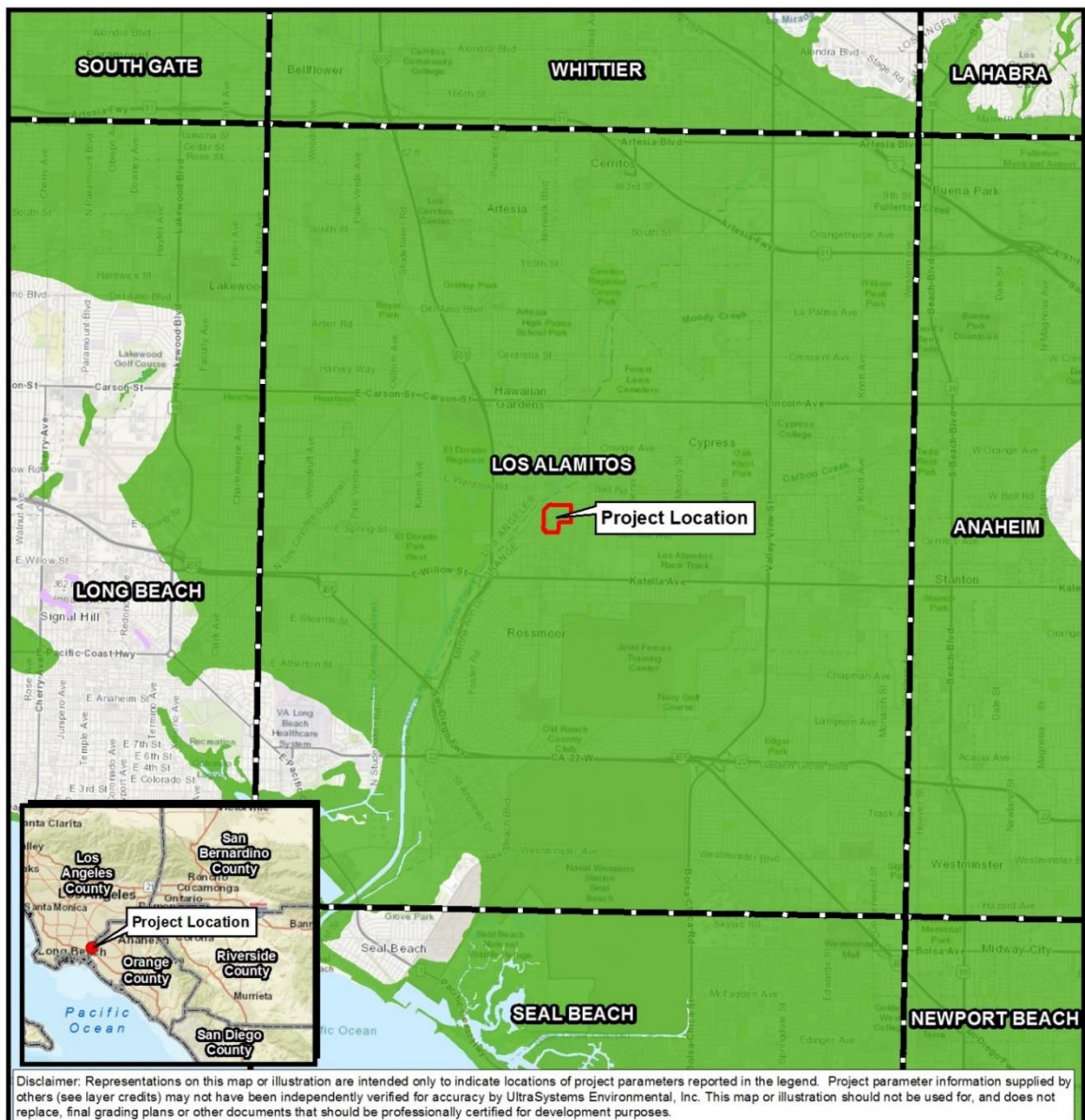
Liquefaction is the loss of soil strength from a rapid increase in pore-water pressure during severe ground shaking and occurs primarily in loose (low density), cohesion-less, and fine- to medium-grained soils in areas where groundwater is approximately 20 feet below the ground surface (bgs) or less. The project site is located within a liquefaction hazard zone (refer to **Figure 4.7-3**).

As detailed in the Geotechnical Engineering report prepared for the proposed project, liquefaction potential analyses were performed from depths of 0 to 50 feet bgs using cone penetration test (CPT) soundings CPT-1 and CPT-2. Based on the subsurface conditions presented in the CPTs and Terracon's calculations, seismically-induced settlements of saturated and unsaturated sands are expected to be between 0.5 and 0.7 inch and seismically-induced differential settlements are expected to be less than of 0.5 inch in a 40-foot distance (Terracon, 2018, p. i)

Based on the materials encountered on the project site during the geotechnical investigation for the proposed project, subsurface conditions consisted of predominantly lean clay with varying amounts of silt and sand extending to the maximum depth explored at 61.5 feet bgs. Groundwater was encountered at a depth of 28 feet bgs during the field explorations for this project. Historic high groundwater depth is 7.3 feet bgs (Terracon, 2018, p. i).



Figure 4.7-3
LANDSLIDES AND LIQUEFACTION



Path: J:\Projects\6090_LosAl_MultiStory_Building\MXD\IS_MND\6090_LosAl_MS_Building_4_6_Landslide_Liquefaction_2019_12_11.mxd
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February 11, 2019

Scale 1:95,040



0 0.75 1.5 Miles

0 0.75 1.5 Kilometers

Legend

- Project Boundary
- Earthquake-Induced Landslide Zones
- Liquefaction Zones
- USGS Quadrangle Boundary

**Los Alamitos High School
Multistory STEM Classroom Building**

Landslides and Liquefaction





Groundwater was encountered at an approximate depth of 28 feet bgs in the borings during the field explorations for the proposed project. Based on the nearby groundwater monitoring wells, the highest groundwater in the project area is 7.3 feet bgs (Terracon, 2018, p. 4). A liquefaction analysis for the site was performed in general accordance with the Division of Mines and Geology (DMG) Special Publication 117 and results are included in Attachment D of the Geotechnical Engineering Report (**Appendix D** to this document). Based on the subsurface conditions presented in Cone Penetration Tests (CPTs) and based on the calculation results, seismically-induced settlements are expected to be approximately ½ inch and seismically-induced differential settlements are expected to be approximately less than ½ inch at a 40-foot distance (Terracon, 2018, p. i). Due to the anticipated seismic induced settlement and static settlement, the proposed building may be supported by the following alternative foundation systems: drilled shaft foundation system or shallow foundations supported on RAP systems. With the incorporation of design considerations recommended in the project's geotechnical report, impacts associated with liquefaction would be less than significant.

iv) Landslides?

No Impact

Landslides occur when the stability of the slope changes from a stable to an unstable condition. A change in the stability of a slope can be caused by a number of factors, acting together or alone. Natural causes of landslides include groundwater (pore water) pressure acting to destabilize the slope, loss of vegetative structure, erosion of the toe of a slope by rivers or ocean waves, weakening of a slope through saturation by snow melt or heavy rains, earthquakes adding loads to barely stable slope, earthquake-caused liquefaction destabilizing slopes, and volcanic eruptions. The project site is not located in a landslide zone because the topography within and surrounding the property is relatively flat. Therefore, no impacts on people or structures due to landslides are anticipated.

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

Less than Significant Impact

Section 402 of the federal Clean Water Act requires construction projects that may potentially result in soil erosion to implement best management practices (BMPs) to eliminate or reduce sediment and other pollutants in stormwater runoff. If one or more acres of soil would be disturbed, a National Pollutant Discharge Elimination System (NPDES) permit is required to be obtained. NPDES permits establish enforceable limits on discharges, require effluent monitoring, designate reporting requirements, and require construction and post-construction BMPs to eliminate or reduce point and non-point source discharges of pollutants, including soil (California State Water Resources Control Board, 2018).

The project applicant is required to obtain an NPDES permit for project construction. This NPDES Permit would require the Legally Responsible Person (LRP), such as the project owner, to prepare a Storm Water Pollution Prevention Plan (SWPPP) prior to construction to identify construction BMPs to eliminate or reduce soils and pollutants in storm water and non-storm water discharged to storm water sewer systems and other drainages. Prior to NPDES permit issuance, the LRP would upload Permit Registration Documents (PRDs) to the State Water Resources Control Board (SWRCB) online Stormwater Multi-Application and Report Tracking System (SMARTS). PRDs include a Notice of Intent (NOI), site map, risk assessment, SWPPP, post-construction water balance, annual fee, and signed certification statement by the LRP attesting to the validity of the information. These



preventive measures during construction are intended to eliminate or reduce soil and topsoil erosion.

The project site has a low potential for soil erosion because it is relatively flat. Additionally, the proposed project must be designed to minimize, to the maximum extent practicable, the introduction of pollutants that may result in significant impacts, generated from site runoff to the storm water conveyance system as approved by the building official. For these reasons, the potential for substantial soil erosion or the loss of topsoil would be less than significant.

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

Less than Significant Impact

The potential impacts related to landslides, lateral spreading, subsidence, liquefaction or collapse are discussed below.

Landslides

Landslides occur when the stability of the slope changes from a stable to an unstable condition. A change in the stability of a slope can be caused by a number of factors, acting together or alone. Natural causes of landslides include groundwater (pore-water) pressure acting to destabilize the slope, loss of vegetative structure, erosion of the toe of a slope by rivers or ocean waves, weakening of a slope through saturation by snow melt, or heavy rains, earthquakes adding loads to barely stable slope, earthquake-caused liquefaction destabilizing slopes, and volcanic eruptions. The project site is flat and therefore is not subject to a landslide. Therefore, no impacts on people or structures would occur due to landslides.

Liquefaction

Liquefaction is the loss of soil strength from a rapid increase in pore-water pressure during severe ground shaking and occurs primarily in loose (low density), cohesion-less, and fine- to medium-grained soils in areas where groundwater is approximately 20 feet bgs or less. Materials on the project site are predominantly soft to medium stiff lean clay with variable amounts of sand to the maximum depth explored at 61.5 feet bgs. Interbedded layers of sand with variable amounts of clay and silt, and sandy silt were encountered between the approximate depths of 35 and 55 feet bgs (Terracon, 2018, p. i). The project site is in a designated liquefaction zone per the California Geological Survey March 25, 1999 map; Earthquake Fault Zones and Seismic Hazard Zones Los Alamitos 7.5-Minute Quadrangle. However, as described under threshold 4.7 a) iii) above, impacts from liquefaction would be less than significant because the project would be constructed per the recommendations of the project's geotechnical report.

Lateral Spreading

Lateral spreading, a phenomenon associated with seismically-induced soil liquefaction, is a display of lateral displacement of soils due to inertial motion and lack of lateral support during or post liquefaction. It is typically exemplified by the formation of vertical cracks on the surface of liquefied soils, and usually takes place on gently sloping ground or level ground with nearby free surface such as drainage or stream channel.



Since there are two drainage channels adjacent to the project site, free surface is located near the project site and seismically-induced liquefaction would have a potential impact if lateral spreading was to take place on or near the project site. Due to the anticipated seismic-induced settlement and static settlement, the proposed multistory STEM classroom building may be supported by a drilled shaft foundation system or a shallow foundation supported on RAP system to account for possible lateral spreading. Grading for the proposed building would incorporate the limits of the building plus a lateral distance of 3 feet beyond the outside edge of the foundation perimeter, where possible (Terracon, 2018, pp. 12-13). The proposed STEM building would be designed per the recommendations in the Geotechnical Report for the project. Therefore, the potential for lateral spreading would be less than significant.

Subsidence

Seismically-induced differential settlement may occur in loose to moderately dense, unsaturated granular soils and result in subsidence. Subsidence may also occur in areas of excessive overdraft during oil and groundwater production.

Per the Geotechnical Engineering Report prepared for the proposed project, the project site lies within an area of groundwater withdrawal subsidence, which is typical of California. However; the project site is not located within the following types of subsidence; hydrocompaction, oil and gas withdrawal, and peat oxidation (Terracon, 2018, p. 10). Design provisions such as adequate reinforcements, deeper foundations or other measures may help alleviate the effects of subsidence. Recommendations include RAP design systems to enhance settlement control and increase bearing capacity and concrete excavations to reduce soil disturbance. If soil conditions differ at the project site during construction, foundations would be reinforced and supplemental recommendations would be required (Terracon, 2018, pp. 20-22). For these reasons, the potential for subsidence would be less than significant.

Collapse

Collapsible soils consist of loose, dry, low-density materials that collapse and compact with the addition of water or excessive loading. These soils are distributed throughout the southwestern United States, specifically in areas of young alluvial fans, debris flow sediments, and wind-blown sediment deposits. Soil collapse occurs when the land surface is saturated at depths greater than those reached by typical rain events. This saturation eliminates the clay bonds holding the soil grains together. Similar to expansive soils, collapsible soils result in structural damage such as cracking of the foundation, floors, and walls in response to settlement. Because subsurface soils on the project site consist of mostly soft to stiff, lean clay soils with variable amounts of sand, and were encountered at a depth of 28 feet bgs, potential for soil collapse within the proposed project site would be less than significant.

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

Less than Significant Impact

Expansive soils shrink and swell with changes in soil moisture. Soil moisture may change from landscape irrigation, rainfall, and utility leakage. Repeated changes in soil volume due to water content fluctuations may compromise structure foundations. Expansive soils are commonly very



fine-grained with high to very high percentages of clay. Design provisions such as adequate reinforcements, deeper foundations or other measures may help alleviate the effects of soils expansion but may not completely eliminate the problem.

A project-specific Geotechnical Engineering Report has been prepared for the proposed project. Site-specific recommendations provided in the geotechnical report would be incorporated into project plans that are reviewed by the DSA for school construction projects prior to approval of construction plans. Although expansive soils are present on the project site (Terracon, 2018, p. 11), recommendations for design and construction in the Geotechnical Engineering Report will mitigate the effects of soil shrinkage and expansion. The proposed STEM building would also be inspected and signed off in the field by a certified DSA inspector to ensure that these requirements are implemented. For these reasons, potential impacts associated with expansive soils would be less than significant.

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

No Impact

The proposed project would not include septic tanks or alternative waste water disposal systems. For this reason, no impact from septic tanks or alternative waste water disposal systems would occur.

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

Less than Significant Impact with Mitigation Incorporated

The City of Los Alamitos and the project site are located on young Quaternary alluvium, which is typically underlain by older Quaternary deposits. This young Quaternary alluvium is the result of deposits on the Los Angeles Basin floodplain during the Holocene epoch (11,700 years ago to present), specifically by the San Gabriel River in the Los Alamitos area. The uppermost layers of younger terrestrial Quaternary alluvium rarely contain significant vertebrate fossils, and no vertebrate fossil localities lie within the project area. The proposed project would be located on a site that has been developed and graded and has been in use since the mid-1970s. Although the project proposes precise grading activities, it is not anticipated to directly or indirectly destroy any paleontological resources or site or unique geologic feature since previous grading activities have yielded negative results. There are no regulations regarding paleontological resources monitoring or preservation in the City of Los Alamitos' General Plan. However, grading activities associated with development of the project would cause new subsurface disturbance and could result in the unanticipated discovery of paleontological resources. With implementation of mitigation measure **GEO-1**, potential impacts related to paleontological resources would be less than significant.

Mitigation Measure

- MM GEO-1:** If paleontological resources are uncovered during construction activities, the contractor shall halt construction activities in the immediate area and notify the Los Alamitos Unified School District. The on-call paleontologist shall be notified and afforded the necessary time and funds to recover, analyze, and curate the find(s). Subsequently, the monitor shall remain onsite for the duration of the ground disturbance to ensure the protection of any other resources that may be in the area.



Level of Significance after Mitigation

With implementation of mitigation measure **GEO-1**, potential impacts on paleontological resources would be reduced to a less than significant level.



4.8 Greenhouse Gas Emissions

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

4.8.1 GHG Constituents

Constituent gases that trap heat in the Earth's atmosphere are called greenhouse gases (GHGs), analogous to the way a greenhouse retains heat. GHGs play a critical role in the Earth's radiation budget by trapping infrared radiation emitted from the Earth's surface, which would otherwise escape into space. Prominent GHGs contributing to this process include carbon dioxide (CO₂), methane (CH₄), ozone (O₃), water vapor, nitrous oxide (N₂O), and chlorofluorocarbons (CFCs). Without the natural heat-trapping effect of GHG, the earth's surface would be about 34°F cooler. This natural phenomenon, known as the greenhouse effect, is responsible for maintaining a habitable climate. However, anthropogenic emissions of these GHGs in excess of natural ambient concentrations are responsible for the enhancement of the greenhouse effect. It has led to a trend of unnatural warming of the Earth's natural climate known as "global warming" or "climate change," or, more accurately, "global climate disruption." Emissions of these gases that induce global climate disruption are attributable to human activities in the industrial/manufacturing, energy, transportation, residential, and agricultural sectors.

The global warming potential (GWP) is the potential of a gas or aerosol to trap heat in the atmosphere. Individual GHG compounds have varying GWP and atmospheric lifetimes. The reference gas for the GWP is CO₂; CO₂ has a GWP of one. The calculation of the CO₂ equivalent (CO₂e) is a consistent methodology for comparing GHG emissions since it normalizes various GHG emissions to a consistent metric. Methane's warming potential of 25 indicates that methane has a 25 times greater warming effect than CO₂ on a molecule per molecule basis. A CO₂e is the mass emissions of an individual GHG multiplied by its GWP. GHGs are often presented in units of metric tons (tonnes) of CO₂e.

4.8.1.1 Types of Greenhouse Gases

Carbon Dioxide (CO₂): The natural production and absorption of CO₂ is achieved through the terrestrial biosphere and the ocean. However, humankind has altered the natural carbon cycle by burning fossil coal, oil, and natural gas. Since the industrial revolution began in the mid-1700s, each of these activities has increased in scale and distribution.



Methane (CH₄): CH₄ has both natural and anthropogenic sources. It is released as part of the biological processes in low oxygen environments, such as in swamplands or in rice production (at the roots of the plants). Over the last 50 years, human activities such as growing rice, raising cattle, using natural gas, and mining coal have added to the atmospheric concentration of methane. Other anthropogenic sources include fossil-fuel combustion and biomass burning.

Nitrous Oxide (N₂O): N₂O is produced naturally by microbial processes in soil and water, including those reactions that occur in nitrogen-containing fertilizer. In addition to agricultural sources, some industrial processes (fossil fuel-fired power plants, nylon production, nitric acid production, and vehicle emissions) also contribute to its atmospheric load. N₂O is used as an aerosol spray propellant, e.g., in whipped cream bottles. It is also used in potato chip bags to keep chips fresh, in rocket engines, and in racecars.

4.8.1.2 GHG Emissions Levels

Per the World Resources Institute (WRI) in 2013, total worldwide GHG emissions were estimated to be 45,261 million (M) tonnes (t) of CO₂e (MtCO₂e) and GHG emissions per capita worldwide were 6.31 tCO₂e. The WRI reports that in 2012, total GHG emissions in the U.S. were 6,280 MtCO₂e, with average GHG emissions per capita of 19.85 tCO₂e and total GHG emissions in California were 444.3 MtCO₂e in 2012, with average GHG emissions per capita of 11.67 tCO₂e (World Resources Institute, 2018).

California has a larger percentage of its total GHG emissions coming from the transportation sector (47%) than the U.S. emissions (29%) and a smaller percentage of its total GHG emissions from the electricity generation sector; i.e., California has 11% but the U.S. has 31%.

4.8.1.3 GHG Thresholds

To provide guidance to local lead agencies on determining significance of GHG emissions in their CEQA documents, the South Coast Air Quality Management District (SCAQMD) Board adopted an Interim CEQA GHG Significance Threshold for Stationary Sources, Rules, and Plans (South Coast Air Quality Management Board, 2008). The Interim Guidance uses a tiered approach to determining significance. Although this Interim Guidance was developed primarily to apply to stationary source industrial projects where the SCAQMD is the lead agency under CEQA, in absence of more directly applicable policy, the SCAQMD's Interim Guidance is often used as general guidance by local agencies to address the long-term adverse impacts associated with global climate change.

The SCAQMD proposes that if a project generates GHG emissions below 3,000 tonnes CO₂e annually, it could be concluded that the proposed project's GHG contribution is not cumulatively considerable, and is therefore less than significant under CEQA. If the proposed project generates GHG emissions above the threshold, the analysis must identify mitigation measures to reduce GHG emissions.

4.8.2 Regulatory Setting

4.8.2.1 Federal Climate Change Regulations

The federal government has been involved in climate change issues at least since 1978, when Congress passed the National Climate Program Act (92 Stat. 601), under authority of which the National Research Council prepared a report predicting that additional increases in atmospheric CO₂ would lead to non-negligible changes in climate. At the "Earth Summit" in 1992 in Rio de Janeiro,



President George H. W. Bush signed the United Nations Framework Convention on Climate Change (UNFCCC), a nonbinding agreement among 154 nations to reduce atmospheric concentrations of carbon dioxide and other GHGs. The treaty was ratified by the U.S. Senate. However, when the UNFCCC signatories met in 1997 in Kyoto, Japan, and adopted a protocol that assigned mandatory targets for industrialized nations to reduce GHG emissions, the U.S. Senate expressed its opposition to the treaty. The Kyoto Protocol was not submitted to the Senate for ratification.

In 2007, *Massachusetts et al. v. Environmental Protection Agency et al.* (549 U.S. 497), the U.S. Supreme Court ruled that CO₂ was an air pollutant under the Clean Air Act, and that consequently, the U.S. Environmental Protection Agency (USEPA) had the authority to regulate its emissions. The Court also held that the Administrator must determine whether emissions of GHGs from new motor vehicles cause or contribute to air pollution which may reasonably be anticipated to endanger public health or welfare, or whether the science is too uncertain to make a reasoned decision. On April 24, 2009, the USEPA published its intention to find that: (1) the current and projected concentrations of the mix of six key GHGs—CO₂, CH₄, N₂O, hydrofluorocarbons (HFCs), perfluorocarbons (PFCs) and sulfur hexafluoride (SF₆)—in the atmosphere threaten the public health and welfare of current and future generations, and (2) the combined emissions of GHG from new motor vehicles and motor vehicle engines contribute to the atmospheric concentrations of these key GHGs and hence to the threat of climate change (74 Fed. Reg. 18886). These findings are required for subsequent regulations that would control GHG emissions from motor vehicles.

4.8.2.2 Energy Independence and Security Act

On December 19, 2007, the Energy Independence and Security Act of 2007 (EISA)²³ was signed into law. Among other key measures, EISA will do the following, which would aid in the reduction of national GHG emissions, both mobile and non-mobile:

- Increase the supply of alternative fuel sources by setting a mandatory Renewable Fuel Standard requiring fuel producers to use at least 36 billion gallons of biofuel in 2022.
- Prescribe or revise standards affecting regional efficiency for heating and cooling products, procedures for new or amended standards, energy conservation, energy efficiency labeling for consumer electronic products, residential boiler efficiency, electric motor efficiency, and home appliances.
- Require approximately 25% greater efficiency for light bulbs by phasing out the incandescent light bulbs between 2012 and 2014; require approximately 200% greater efficiency for light bulbs, or similar energy savings, by 2020.

While superseded by National Highway Traffic Safety Administration (NHTSA) and USEPA actions described above, EISA also set miles per gallon (mpg) targets for cars and light trucks, and directed the NHTSA to establish a fuel economy program for medium- and heavy-duty trucks, and create a separate fuel economy standard for work trucks.

Additional provisions of the EISA address energy savings in government and public institutions, promoting research for alternative energy, additional research in carbon capture, international energy programs, and the creation of “green jobs.”

23 Energy Independence and Security Act. Public Law 110-140. Signed on December 19, 2007.



4.8.2.3 California Climate Change Regulations

Executive Order S-3-05 (GHG Emissions Reductions). Executive Order #S-3-05, signed by Governor Arnold Schwarzenegger on June 1, 2005, calls for a reduction in GHG emissions to 1990 levels by 2020 and for an 80% reduction in GHG emissions to below 1990 levels by 2050.

The California Global Warming Solutions Act of 2006 (AB 32). In September 2006, Governor Arnold Schwarzenegger signed AB 32, the California Global Warming Solutions Act of 2006 (Health and Safety Code § 38500 et seq.), into law. AB 32 was intended to effectively end the scientific debate in California over the existence and consequences of global warming. In general, AB 32 directed the California Air Resources Board (ARB) to do the following:

- On or before June 30, 2007, publicly make available a list of discrete early-action GHG emission reduction measures that can be implemented prior to the adoption of the statewide GHG limit and the measures required to achieve compliance with the statewide limit;
- By January 1, 2008, determine the statewide levels of GHG emissions in 1990, and adopt a statewide GHG emissions limit that is equivalent to the 1990 level (an approximately 25% reduction in existing statewide GHG emissions);
- On or before January 1, 2010, adopt regulations to implement the early-action GHG emission reduction measures;
- On or before January 1, 2011, adopt quantifiable, verifiable, and enforceable emission reduction measures by regulation that will achieve the statewide GHG emissions limit by 2020, to become operative on January 1, 2012, at the latest. The emission reduction measures may include direct emission reduction measures, alternative compliance mechanisms, and potential monetary and non-monetary incentives that reduce GHG emissions from any sources or categories of sources as ARB finds necessary to achieve the statewide GHG emissions limit; and
- Monitor compliance with and enforce any emission reduction measure adopted pursuant to AB 32.

On December 11, 2008, the ARB approved the *Climate Change Scoping Plan* (ARB, 2008a) pursuant to AB 32. The Scoping Plan recommends a wide range of measures for reducing GHG emissions, including (but not limited to):

- Expanding and strengthening of existing energy efficiency programs;
- Achieving a statewide renewables energy mix of 33 %;
- Developing a GHG emissions cap-and-trade program;
- Establishing targets for transportation-related GHG emissions for regions throughout the state, and pursuing policies and incentives to meet those targets;
- Implementing existing state laws and policies, including California's clean car standards, goods movement measures and the Low Carbon Fuel Standard; and



- Targeted fees to fund the state's long-term commitment to administering AB 32.

Executive Order S-01-07 (Low Carbon Fuel Standard). Executive Order #S-01-07 (January 18, 2007) established a statewide goal to reduce the carbon intensity of California's transportation fuels by at least 10% by 2020 through establishment of a Low Carbon Fuel Standard. Carbon intensity is the amount of CO₂e per unit of fuel energy emitted from each stage of producing, transporting and using the fuel in a motor vehicle. On April 23, 2009, the Air Resources Board adopted a regulation to implement the standard.

Senate Bill 97. Senate Bill 97 was signed by the governor on August 24, 2007. The bill required the Office of Planning and Research (OPR), by July 1, 2009, to prepare, develop and transmit to the Resources Agency guidelines for the feasible mitigation of GHG emissions or the effects of GHG emissions, as required by CEQA, including, but not limited to, effects associated with transportation or energy consumption. On April 13, 2009, OPR submitted to the Secretary for Natural Resources its proposed amendments to the State CEQA Guidelines for GHG emissions. The Resources Agency adopted those guidelines on December 30, 2009, and they became effective on March 18, 2010. The amendments treat GHG emissions as a separate category of impacts; i.e., they are not to be addressed as part of an analysis of air quality impacts.

Section 15064.4, which was added to the CEQA Guidelines, specifies how the significance of impacts from GHGs is to be determined. First, the lead agency should "make a good faith effort" to describe, calculate or estimate the amount of GHG emissions resulting from a project. After that, the lead agency should consider the following factors when assessing the impacts of the GHG emissions on the environment:

- The extent to which the project may increase or reduce GHG emissions, relative to the existing environmental setting;
- Whether the project emissions exceed a threshold of significance that the lead agency determines applies to the project; and
- The extent to which the project complies with regulations or requirements adopted to implement a statewide, regional or local plan for the reduction or mitigation of GHG emissions.

The OPR asked the ARB to make recommendations for GHG-related thresholds of significance. On October 24, 2008, the ARB issued a preliminary draft staff proposal for *Recommended Approaches for Setting Interim Significance Thresholds for Greenhouse Gases under the California Environmental Quality Act* (ARB, 2008b). After holding two public workshops and receiving comments on the proposal, ARB staff decided not to proceed with threshold development (Ito, 2010). Quantitative significance thresholds, if any, are to be set by local agencies.

Senate Bill 375. Senate Bill 375 required coordination of land use and transportation planning to reduce GHG emissions from transportation sources. Regional transportation plans, which are developed by metropolitan transportation organizations such as the Southern California Association of Governments (SCAG), are to include "sustainable community strategies" to reduce GHG emissions.

Title 24. The Energy Efficiency Standards for Residential and Nonresidential Buildings (Title 24, Part 6, of the *California Code of Regulations*) were established in 1978 in response to a legislative mandate to reduce California's energy consumption. The standards are updated periodically to allow



❖ SECTION 4.8 - GREENHOUSE GAS EMISSIONS ❖

consideration and possible incorporation of new energy efficiency technologies and methods. Compliance with Title 24 will result in decreases in GHG emissions. The California Energy Commission (CEC) adopted the 2008 changes to the Building Energy Efficiency Standards on April 23, 2008, with an aim to promote the objectives listed below (CEC, 2008).²⁴

- Provide California with an adequate, reasonably-priced and environmentally-sound supply of energy.
- Respond to Assembly Bill 32, the Global Warming Solutions Act of 2006, which mandates that California must reduce its GHG emissions to 1990 levels by 2020.
- Pursue California energy policy that energy efficiency is the resource of first choice for meeting California's energy needs.
- Act on the findings of California's Integrated Energy Policy Report (IEPR) that Standards are the most cost-effective means to achieve energy efficiency, expects the Building Energy Efficiency Standards to continue to be upgraded over time to reduce electricity and peak demand, and recognizes the role of the Standards in reducing energy related to meeting California's water needs and in reducing GHG emissions.
- Meet the West Coast Governors' Global Warming Initiative commitment to include aggressive energy efficiency measures into updates of state building codes.
- Meet the Executive Order in the Green Building Initiative to improve the energy efficiency of nonresidential buildings through aggressive standards.

The provisions of Title 24, Part 6 apply to all buildings for which an application for a building permit or renewal of an existing permit is required by law. They regulate design and construction of the building envelope, space-conditioning and water-heating systems, indoor and outdoor lighting systems of buildings, and signs located either indoors or outdoors. Title 24, Part 6 specifies mandatory, prescriptive and performance measures, all designed to optimize energy use in buildings and decrease overall consumption of energy to construct and operate residential and nonresidential buildings. Mandatory measures establish requirements for manufacturing, construction and installation of certain systems; equipment and building components that are installed in buildings.

Recent Developments: On May 22, 2014, the ARB approved the First Update to the Climate Change Scoping Plan Pursuant to AB 32 (ARB, 2014). The updated scoping plan evaluates the effectiveness of policies from the original scoping plan, and adds recommendations for expanding and improving upon those programs including, but not limited to:

- Leveraging public money to fund technologies including medium- and heavy-duty Zero Emission Vehicles (ZEVs).
- Expanding local, regional and state transportation plan goals to improve transit efficiency.
- Supporting the High-Speed Rail Authority and Sustainable Freight Strategy.

24 The 2008 changes to Building Energy Efficiency Standards became effective January 1, 2010.



- Extending Low Carbon Fuel Standards beyond 2020 with more aggressive goals.
- Developing accurate methods for estimating agricultural emissions so that GHG reduction techniques can be assessed.
- Eliminating disposal of organic matter and promote methane recovery at landfills.
- Instituting the Forest Carbon Plan to model and understand the carbon cycle of forestry.
- Implementing economic incentives for the destruction of short-lived climate pollutants.
- Allowing limited future allowances for Cap-and-Trade to reduce cost spikes.
- Setting interim goals to reach GHG emissions of 80% of 1990 levels by 2050.

4.8.3 Impact Analysis

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

Less than Significant Impact

Construction activities would create a temporary addition of GHGs to the regional air shed. An emissions model, CalEEMod Version 2016.3.2, was used to estimate emissions from off-road equipment exhaust. The model also calculated emissions from on-road vehicle exhaust generated by employee commuting, vendor activity, and off-hauling of demolition debris. CalEEMod incorporates SCAQMD emission estimation methods for off-road equipment and on-road emission factors from the ARB's EMFAC2014 (v1.0.7) model for applicable calendar years in the Los Angeles County portion of the South Coast Air Basin. Model inputs and results are provided in **Appendix B. Table 4.8-1** shows the estimated total CO₂e emissions from proposed construction activity for the proposed project. GHG emissions from construction are amortized over the next 30 years for the purpose of estimating annual emissions.

As with criteria pollutant emissions in **Section 4.3**, GHG emissions were estimated separately for the rammed aggregate pier construction, using emission factors from the USEPA's NONROAD2008a emissions model. CO₂e emissions for RAP would be 5.7 tonnes in 2020 and zero tonnes in 2021. If RAP GHG emissions are included, then the total CO₂e emissions during construction will be 965.2 tonnes and the 30-year amortized emissions would rise by 0.2 tonne to 32.2 tonnes.



Table 4.8-1
CONSTRUCTION GHG EMISSIONS

Year of Construction	Project GHG Emissions (tonnes)			
	CO ₂	CH ₄	N ₂ O	CO ₂ e
2020	537	0.113	0.0000	539.5
2021	418	0.086	0.0000	420.0
Total	955	0.199	0.0000	959.5
<i>Amortized Emissions (30 years)</i>				32.0

Source: UltraSystems Analysis.

The project would relocate various current operations to a single building, while demolishing their former sites. It would not result in a change in the student, faculty, or staff populations. Nevertheless, CalEEMod was used to estimate operational emissions, without taking “credit” for existing emissions that will be discontinued. Results are shown in **Table 4.8-2**.

Table 4.8-2
PROJECT OPERATIONAL GHG EMISSIONS

Emissions Source	Estimated Project Generated CO ₂ e Emissions (Metric Tons per Year)
Area Sources	0.02
Energy Demand (Electricity & Natural Gas)	224
Mobile (Motor Vehicles)	1,542
Solid Waste Generation	57
Water Demand	42
Construction Emissions ^a	32
	1,897

^a The total construction GHG emissions were amortized over 30 years and added to the operation of the project.

Since the SCAQMD proposes that if a project generates GHG emissions below 3,000 tonnes CO₂e, it could be concluded that the proposed project’s GHG contribution is not “cumulatively considerable” and is therefore less than significant under CEQA. Based on the SCAQMD threshold, impacts due to GHG emissions would be less than significant. No mitigation measures are required.

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

No Impact

The City of Los Alamitos does not have a plan that focuses principally on the emissions of GHGs. The City’s March 2015 General Plan, Open Space, Recreation, and Conservation Element – Air, Energy, and Water Resources discusses the Global Warming Solutions Act and GHG emission standards and



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regulations under the SCAQMD and the ARB. The project complies with all SCAQMD and ARB rules and regulations with regard to air quality and GHG emissions, and therefore no conflicts to applicable plans or policies will occur.



4.9 Hazards and Hazardous Materials

Would the project:	Potentially Significant Impact	Less than Significant Impact 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?			X	
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?		X		
c) Emit hazardous emissions or handle hazardous or acutely hazardous materials, substances, or waste within one quarter mile of an existing or proposed school?		X		
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?				X
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?			X	
f) Impair implementation of or physically interfere with an adopted emergency response plan or emergency evacuation plan?			X	
g) Expose people or structures, either directly or indirectly, to a significant risk of loss, injury or death involving wildland fires?				X
h) Is the property line of the proposed school site less than the following distances from the edge of respective power line easements: (1) 100 feet for 50-133 kV line; (2) 150 feet for 220-230 kV line; or (3) 350 feet for 500-550 kV line? [CCR, Title 5 § 14010(c)]			X	



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Would the project:	Potentially Significant Impact	Less than Significant Impact with Mitigation Incorporated	Less than Significant Impact	No Impact
i) Is the proposed school site located near an aboveground water or fuel storage tank or within 1,500 feet of an easement of an aboveground or underground pipeline that can pose a safety hazard to the site? [CCR, Title 5 § 14010 (h)]		X		
j) Is the proposed school site situated within 2,000 feet of a significant disposal of hazardous waste? [CCR, Title 5 § 14010(t)]				X
k) Does the proposed school site contain one or more pipelines, situated underground or aboveground, which carry hazardous substances, acutely hazardous materials or hazardous wastes, unless the pipeline is a natural gas line that is used only to supply natural gas to that school or neighborhood? [PRC § 21151.8 (a)(1)(C)]				X
l) Is the school site in an area designated in a city, county, or city and county general plan for agricultural use and zoned for agricultural production, and if so, do neighboring agricultural uses have the potential to result in any public health and safety issues that may affect the pupils and employees at the school site? [Ed. Code § 17215.5 (a)] (Does not apply to school sites approved by CDE prior to January 1, 1997).				X
m) Does the project site contain a current or former hazardous waste disposal site or solid waste disposal site and, if so, have the wastes been removed? [PRC § 21151.8 (a)(1)(A)]				X
n) Is the project site a hazardous substance release site identified by the state Department of Health Services in a current list adopted pursuant to §25356 for removal or remedial action pursuant to Chapter 6.8 of Division 20 of the Health and Safety Code?				X



❖ SECTION 4.9 - HAZARDS AND HAZARDOUS MATERIALS ❖

Would the project:	Potentially Significant Impact	Less than Significant Impact with Mitigation Incorporated	Less than Significant Impact	No Impact
o) If prepared, has the risk assessment been performed with a focus on children's health posed by a hazardous materials release or threatened release, or the presence of naturally occurring hazardous materials on the school site?		X		
p) If a response action is necessary and proposed as part of this project, has it been developed to be protective of children's health, with an ample margin of safety?				X
q) Is the proposed school site within two miles, measured by air line, of that point on an airport runway or potential runway included in an airport master plan that is nearest to the site? [Ed. Code § 17215 (a)&(b)] (Two nautical miles = 12,152 feet) (Does not apply to school sites acquired prior to January 1, 1996.)				X

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

Less than Significant Impact

The proposed project would include the transport, storage, and use of chemical agents, solvents, paints, and other hazardous materials commonly associated with construction activities. Chemical transport, storage, and use would comply with Resource Conservation and Recovery Act (RCRA); Comprehensive Environmental Response, Compensation, and Liability Act (CERCLA); California Hazardous Waste Control Law;²⁵ Occupational Safety and Health Administration (OSHA), and Orange County Fire Authority (OCFA) requirements.

The District bid documents would require the contractor to prepare and submit to the District a Construction Safety Management Plan, based on OSHA standards. This plan would include provisions for proper training of construction crews regarding the use, storage and disposal of any hazardous materials or waste. In addition, the plan would include safety procedures for implementation in the unlikely event of an unauthorized release of hazardous materials.

The proposed new STEM Classroom Building will include 14 new science classrooms, four additional chemistry labs and 13 general education classrooms. The new science classrooms and chemistry labs would require the transport, storage, use, and disposal of certain chemicals typically used in science and chemistry education. Other minimal hazardous materials expected at the site include janitorial

25 Codified in California Health and Safety Code, Division 20, Chapter 6.5, Hazardous Waste Control.



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and landscaping supplies, such as commercial cleansers, paints, and lubricants for maintenance and upkeep of school grounds. The use of these materials would be subject to District guidelines and would be stored, handled, and disposed of in accordance with applicable regulations. School operation would not involve the routine transport, use, or disposal of quantities of hazardous materials that may create a significant hazard to the public or environment.

Once construction is complete and the project is operational, the District's Maintenance and Operations Department has standards and management procedures for the handling of hazardous materials that require District employees be trained in the use, storage and disposal of hazardous materials or waste, and safety procedures to be implemented in the unlikely event of a release of hazardous materials.

Based on the above analysis, potential impacts from the transport, storage, and use of chemical agents, solvents, paints, and other hazardous materials to the public or the environment would be less than significant.

- b) **Would the project create a significant hazard to the public or the environment through reasonably foreseeable upset and accident conditions involving the release of hazardous materials into the environment?**
- c) **Would the project emit hazardous emissions or handle hazardous or acutely hazardous materials, substances, or waste within one-quarter mile of an existing or proposed school?**

Less Than Significant Impact with Mitigation Incorporated

Environmental Site Assessments

2005 Preliminary Endangerment Assessment (PEA)

Per California Education Code (CEC) §§ 17210, 17210.1, 17213.1, and 17213.2 and current applicable guidance from the Department of Toxic Substances Control (DTSC), a Preliminary Endangerment Assessment (PEA) (EDF-Associates, LLC, 2005) was conducted in 2005 at the Los Alamitos High School for a previous project, the construction of buildings 700 (L1) and 750 (L2) and a parking lot located west of the proposed STEM building site (see **Figure 3.3-1**). The 2005 PEA included soil vapor samples, groundwater samples, soil samples for pesticide analyses and background metal analyses. No buildings or structures on the site were evaluated for Asbestos-Containing Materials (ACM) or Lead-Based Paints (LBPs) during that investigation. The site has not been identified on any of the regulatory databases as a hazardous waste generator, or as a facility that treats, stores or disposes of hazardous waste onsite, however, it was identified for previous disposal of asbestos and polychlorinated biphenyl (PCB) containing wastes (fluorescent light ballast) as part of school remodeling activities (p. 2-3). The 2005 PEA stated that asbestos containing materials were being removed from the Los Alamitos High School campus (p. 2-10) but didn't state where asbestos was being removed from.

The conclusion of the 2005 PEA report prepared for that project determined contaminants onsite were below levels of significance and No Further Action was required (EDF-Associates, LLC, 2005). Subsequently, a No Further Action (NFA) and PEA approval letter was issued by the DTSC on May 17, 2005 (DTSC, 2005) for the Los Alamitos High School Site. The issuance of the NFA letter indicates that the DTSC has concluded that there are no contaminants of concern in the Los Alamitos



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High School field area. The PEA approval/NFA letter is included in **Appendix F** of this Draft IS/MND. Los Alamitos High School is in the process of obtaining an updated PEA from the DTSC which would apply to the proposed STEM building project site.

Waste Characterization Soil Sampling

Waste characterization soil sampling was conducted by Ninyo and Moore in September and October 2018 for the project site and an Updated Technical Memorandum was prepared (Ninyo and Moore, 2018). The technical memorandum is included in **Appendix H** of this Draft IS/MND. Soil sampling was conducted to characterize soil on the site prior to planned excavation for disposal as export and to evaluate whether significant concentrations of chemicals of concern are present in soil related to the adjoining open leaking underground storage tank (LUST) case to the southwest of the site at the former Unocal #4727 at 3501 West Cerritos Avenue. Soil samples were analyzed for: total petroleum hydrocarbons (TPHs), which include diesel range organics (DROs), motor oil range organics (MROs), and gasoline range organics (GROs), in accordance with United States Environmental Protection Agency (USEPA) Method 8015M; VOCs in accordance with USEPA Method 8260B; and Title 22 Metals in accordance with USEPA Method 6010B/7471A. Results of these tests are summarized below (Ninyo and Moore, 2018, p. 5-6):

- **Title 22 Metals.** Detectable concentrations of Title 22 Metals were reported in the soil samples analyzed, at levels below their respective EPA RSLs and DTSC screening levels, except for arsenic. Arsenic was reported in 37 samples analyzed, ranging from 2.2 milligrams per kilogram (mg/kg) to 6.4 mg/kg. Detected values of arsenic were below the DTSC Acceptable Cleanup value for arsenic of 12 mg/kg, some exceeded the Orange County Landfill acceptable arsenic concentration of 4.4 mg/kg.
- **Total Petroleum Hydrocarbons (TPH).** MRO was reported in various samples, at concentrations ranging from 30 to 340 mg/kg. GRO was reported in one sample, B21-5', at a concentration of 0.24 mg/kg. These detected concentrations of MRO and GRO were below their respective EPA RSLs for both residential and commercial soil and the RWQCB guidelines for reuse of TPH-contaminated soil. DRO was detected in six soil samples at concentrations ranging from 15 to 380 mg/kg. The DRO concentrations of 380 mg/kg in sample B1-5' and 110 mg/kg in sample B20-2' exceeded the RWQCB guidelines for reuse of TPH-contaminated soil.
- **Volatile Organic Compounds (VOCs).** Detectable concentrations of VOCs were not reported in the soil samples analyzed.

The elevated concentrations of TPH, VOCs, or Title 22 Metals were not detected in soil samples analyzed near the adjoining open LUST case at boring B21. One detection of GRO at 0.24 mg/kg was reported at 5 feet bgs, which does not exceed screening levels.

Phase I Environmental Site Assessment (ESA)

A Phase I Environmental Site Assessment (ESA) was conducted on the site by The Phase One Group in April 2019. The results of the Phase I are documented in the Phase I Environmental Site Assessment Report dated June 10, 2019 and included in Appendix L of this Draft IS/MND. The Phase I ESA reported evidence of recognized environmental conditions (RECs) and historical recognized environmental conditions (HRECs) in connection with the project site are: total petroleum



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hydrocarbons from former offsite Unocal gasoline station; organochlorine pesticides and arsenic from historical agricultural use; as follows (The Phase One Group, 2019, pp. 2-4).

- In 2004, an expansion project was underway on the western portion of the Los Alamitos High School Campus. The expansion project included the areas encompassing Building 700 and Building 750, located approximately 125 feet northwest of the subject property. The PEA site evaluation only included the expansion project area of the high school campus and did not include the subject property. The DTSC required a PEA at the high school campus to evaluate the existence of petroleum fuel from the demolished gasoline station that was located on the adjacent property to the southwest, at 3501 Cerritos Avenue. Although the PEA concluded that no further action was required at the expansion project, which did not include the subject property, the potential exists that the subject property has been adversely impacted by the former Unocal gasoline station to the west-southwest. Therefore, the former offsite Unocal gasoline station is considered a REC in connection with the subject property (i.e., the proposed project site). Refer to mitigation measure **HAZ-1**, which addresses this REC.
- According to historical sources reviewed, the subject property appeared to be developed for agricultural purposes prior to the development of the existing school campus. There is a potential that agricultural-related chemicals such as organochlorine pesticides, herbicides, fertilizers and arsenic may have been used and stored onsite. Based on the above, this is considered a REC in connection with the subject property. Refer to mitigation measure **HAZ-1**, which addresses this REC.

An environmental issue refers to environmental concerns identified by The Phase One Group which do not qualify as RECs; however, they warrant further discussion. The following environmental issues were identified in the Phase I ESA prepared for the proposed project (The Phase I Group, 2019, p. 4):

- According to the Phase I ESA, potential ACMs identified at the existing buildings included wallboard/drywall, vinyl floor tile, and suspended ceiling tile. Refer to mitigation measure **HAZ-2**, which addresses this environmental issue.
- The subject property building was reportedly constructed in 1968. Based on the age of the subject property building (pre-1978), there is a potential that LBP is present. Interior and exterior painted surfaces were observed in undamaged condition. Refer to mitigation measure **HAZ-2**, which addresses this environmental issue.

After review of the Phase I ESA report prepared for this project (The Phase I Group, 2019), the DTSC issued an Environmental Site Assessment Determination letter dated July 16, 2019. See **Appendix M**. The letter stated that the DTSC concurs with the conclusions and recommendations of the Phase I ESA, which are discussed further below. The DTSC also determined that completion of a PEA is needed for project site. The purpose of the PEA is to determine whether a release, or threatened release of hazardous material or naturally occurring hazardous material, may pose a threat to public health or the environment is present at the site. As stated previously, Los Alamitos High School is in the process of obtaining an updated PEA from the DTSC which would apply to the proposed STEM building project location.



Construction

Asbestos-Containing Material, Lead-Based Paint, and Lead in Plumbing

South Coast Air Quality Management District (SCAQMD) Rule 1403, Asbestos Emissions from Renovation/Demolition Activities, regulates asbestos as a toxic material and controls the emissions of asbestos from demolition and renovation activities by specifying agency notifications, appropriate removal procedures, and handling and cleanup procedures. Rule 1403 applies to owners and operators involved in the demolition or renovation of structures with asbestos-containing materials, asbestos storage facilities, and waste disposal sites. The federal OSHA also regulates asbestos as a potential worker safety hazard. Mandatory compliance with Rule 1403 and with OSHA regulations would reduce potential impacts to less than significant levels. Any activity that involves cutting, grinding, or drilling during building renovation or demolition, or that involves relocation of underground utilities, could release friable asbestos fibers unless proper precautions are taken.

The project would include demolition of the existing Administration and Media Center building and associated infrastructure, landscaping, and utilities. Grading/excavation activities would also occur. According to the Phase I ESA (The Phase One Group, 2019, pp. 2-4), since the existing buildings to be demolished were constructed in 1968, they may still have construction material that contains asbestos. According to the Districtwide Facilities Master Plan (Rachlin Partners, 2018), in 2003 and 2004, most of the buildings at the project site underwent modernization, which included rehabilitation of classrooms and other facilities on the campus. The modernization replaced many or all of the existing interior finishes and the exterior was repainted (pg. B1-1). However, it also states that between 2008 and 2015 Los Alamitos High School was the only LAUSD school that did not receive comprehensive modernization or Hazard Material Clearance during that time and that further testing will be required at this school to determine the presence of asbestos or lead paint (Rachlin Partners, 2018; p. E1-1).

The Phase One Group recommended a comprehensive asbestos survey of these materials and the existing buildings be conducted prior to any renovation or demolition activities to confirm the presence or absence of asbestos to prevent potential exposure to workers and/or building occupants (The Phase One Group, 2019, p. 4). If the existing buildings are found to contain any ACMs, they would need to be removed prior to demolition, as required, and in accordance with applicable laws, including guidelines of OSHA. With removal of any existing hazardous materials prior to demolition as required by mitigation measure **HAZ-2** and in accordance with applicable laws, impacts regarding hazardous materials, substances, or waste would be less than significant.

Lead is a highly toxic metal that affects virtually every system of the body. Lead-based paint is defined as any paint, varnish, stain, or other applied coating that has 1 mg/cm² (or 5,000 µg/g or 0.5% by weight) or more of lead. The subject property building was reportedly constructed in 1968. Based on the age of the subject property building (pre-1978), there is a potential that LBP is present. Interior and exterior painted surfaces were observed in undamaged condition. Based on the construction date of the subject property building (1968), a comprehensive LBP survey of painted surfaces at the subject property is recommended prior to any renovation or demolition activities to confirm the presence or absence of LBP to prevent potential exposure to workers and/or building occupants (The Phase One Group, 2019, p. 37). This recommendation is addressed via mitigation measure **HAZ-2**.

The existing buildings were not evaluated or tested for the presence of LBP or lead in plumbing components and/or water supply lines during the PEA (EDF-Associates, LLC, 2005, p. 2-10; **Appendix F**) or the Phase I ESA (The Phase One Group, 2019, p. 37; **Appendix L**). However, any



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potential LBP, and plumbing components suspected to contain lead will be removed prior to demolition, as required, and in accordance with applicable laws. Furthermore, with implementation of mitigation measure **HAZ-2**, impacts regarding hazardous materials, substances, or waste would be less than significant.

Contaminated Soil

Excavated soil would be classified as hazardous waste if the soil contaminants exceeded criteria identified in CCR Title 22. Such soil would require remediation (treatment) onsite, would be transferred to an offsite processing facility, or transported to a disposal facility that is permitted to accept such wastes. Excavated areas would then be backfilled by clean imported soil.

Groundwater

As detailed in the Phase I ESA prepared for the project, there is a potential for groundwater contamination from the past use of agricultural-related chemicals and the former offsite Unocal gasoline service station. Therefore, Mitigation Measure **HAZ-1** is recommended to reduce potential impacts from groundwater contamination to a less than significant level.

It is required that the proposed project and all contractors would comply with all applicable federal, state, and local laws and regulations regarding hazardous materials. Specific mitigation measures **HAZ-1** through **HAZ-7** listed below, have been designed to minimize or avoid potential impacts resulting from construction of the proposed project.

Mitigation Measures

MM HAZ-1 Prior to commencement of project construction, a limited subsurface investigation shall be conducted at the project site to determine the presence or absence of soil and/or groundwater contamination due to the potential that agricultural related chemicals such as organochlorine pesticides, herbicides, fertilizers and arsenic may have been used and stored onsite, and the former offsite Unocal gasoline service station. If contamination is found in the soil or groundwater, the impacted soils and groundwater shall be handled and disposed of in accordance with all applicable laws.

MM HAZ-2 Due to the age of the existing buildings and the potential presence of ACMs, testing shall be conducted prior to demolition and a Hazardous Material Abatement Plan shall be prepared.

Prior to the commencement of demolition, the project proponent shall retain a qualified environmental consultant to conduct a comprehensive survey of the existing buildings to confirm the presence or absence of ACMs and LBP. A comprehensive lead-based paint survey of painted surfaces at the subject property shall occur prior to any renovation or demolition activities to confirm the presence or absence of LBP to prevent potential exposure to workers and/or building occupants. If the existing buildings are found to contain any ACMs or LBP, a detailed Hazardous Material Abatement Plan shall be prepared, approved, and implemented. The Hazardous Material Abatement Plan shall include a site-specific scope of work and specifications for the proper disposal of hazardous materials. The Hazardous Material Abatement Plan shall be prepared and implemented in accordance with the Asbestos National Emission Standards for Hazardous Air Pollutants (NESHAP) and all



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other federal and state standards and regulations including the DTSC, California Department of Education (CDE), and Office of Public School Construction (OPSC).

The Hazardous Material Abatement Plan shall require that all ACMs and LBP be removed and properly disposed of in accordance with the provisions of the Hazardous Material Abatement Plan.

The Hazardous Material Abatement Plan shall be implemented prior to demolition activities to ensure that any hazardous materials are properly identified, removed, and disposed of offsite at a landfill that can accept asbestos and any other hazardous materials removed from the site.

A qualified environmental consultant shall be present on the project site during demolition activities and shall monitor compliance with the Hazardous Material Abatement Plan.

MM HAZ-3 Due to the presence of arsenic and other potential contamination in the soil, a Soil Management Plan shall be prepared. Prior to the commencement of grading and excavation, the project proponent shall retain a qualified environmental consultant to prepare a Soil Management Plan for Contaminated Soils (SMP), which will be submitted to the City of Los Alamitos Department of Building and Safety for review and approval prior to the commencement of excavation and grading activities.

The SMP shall require that the project shall remove and properly dispose of impacted materials in accordance with the provisions of the SMP. All impacted soils would be properly treated and disposed of in accordance with applicable requirements of the DTSC, and County of Orange Fire Department.

The SMP shall be implemented during excavation and grading activities on the project site to ensure that any contaminated soils are properly identified, excavated, and disposed of offsite. Contaminated soils shall be transported from the project site by a licensed transporter and disposed of at a licensed storage/treatment facility to prevent contaminated soils from becoming airborne or otherwise released into the environment.

A qualified environmental consultant shall be present on the project site during grading and excavation activities in the known or suspected locations of contaminated soils, and shall be on call at other times as necessary, to monitor compliance with the SMP and to actively monitor the soils and excavations for evidence of contamination.

MM HAZ-4 Soil in the area of borings with reported arsenic concentrations above 4.4 mg/kg should be stockpiled separately during soil removal activities and disposed of at a landfill that will accept these soils. The stockpile generated from soil removal in these areas should be sampled for waste characterization and appropriate disposal.

MM HAZ-5 Soil in the area of boring B1, which reported an elevated concentration of Diesel Range Organics (DRO) at 5 feet bgs, and borehole B20 at 2 feet bgs, should be stockpiled separately upon removal. The stockpile generated from soil removal in this area should be sampled for waste characterization and appropriate disposal.



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- MM HAZ-6** Soils with signs of impact (odor, staining, etc.) if encountered during excavation should be separately stockpiled and sampled to evaluate if it exceeds screening criteria used in the Updated Technical Memorandum – Waste Characterization Soil Sampling prepared by Ninyo & Moore, dated October 31, 2018.
- MM HAZ-7** Other soil to be removed by future construction activities can be disposed of offsite at an appropriate disposal facility as non-hazardous waste. Written prior acceptance at the disposal facility should be obtained. Depending on the facility's acceptance criteria, additional sampling may be recommended.

Operations

The proposed new STEM Classroom Building will include 14 new science classrooms, four additional chemistry labs and 13 general education classrooms. As discussed previously, the new science classrooms and chemistry labs would require the storage and use of certain chemicals typically used in science and chemistry education. The storage and use of these chemicals could potentially create a hazard to the public or the environment if upset and accident conditions were to exist. However, the District's policies and guidelines for the use of these chemicals would be followed. The proposed project would be made compliant with federal, state, and local regulations for soils and building materials.

Level of Significance after Mitigation

With implementation of mitigation measures **HAZ-1** through **HAZ-7**, potential impacts from hazardous materials, substances, or waste would be reduced to a less than significant level.

- d) **Would the project be located on a site which is included on a list of hazardous materials sites compiled pursuant to Government Code § 65962.5 or a list of hazardous substance release sites identified by the state Department of Health Services pursuant to § 25356 of the Health & Safety Code and, as a result, would it create a significant hazard to the public or the environment?**

No Impact

Government Code § 65962.5 requires the DTSC to compile and update, at least annually, lists of the following:

- Hazardous waste and substances sites from the DTSC EnviroStor database.
- Leaking underground storage tank (LUST) sites by county, and fiscal year from the State Water Resources Control Board (SWRCB) GeoTracker database.
- Solid waste disposal sites identified by the SWRCB with waste constituents above hazardous waste levels outside the waste management unit.
- SWRCB Cease and Desist Orders (CDOs) and Cleanup and Abatement Orders (CAOs).²⁶

²⁶ CDOs and CAOs may be issued for discharges of domestic sewage, food processing wastes, or sediment that do not contain hazardous materials.



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- Hazardous waste facilities subject to corrective action by DTSC pursuant to Health and Safety Code (HSC) § 25187.5.²⁷

These lists are collectively referred to as the “Cortese List.” Based on a review of site documentation on GeoTracker, several Cortese-listed properties are located near the school site. These are listed below.

- UNOCAL #4727 (T0605901594), 3501 CERRITOS, LUST Cleanup Site, Cleanup Status: Open - Site Assessment, RB Case #: 083002155T, Loc Case #: 92UT123
- CHEVRON #20-6285 (T0605901948), 10471 LOS ALAMITOS, LUST Cleanup Site, Cleanup Status: Open - Site Assessment, RB Case #: 083002837T, Loc Case #: 96UT016
- SHELL OIL (T0605900275), 4001 BALL, LUST Cleanup Site, Cleanup Status: Open - Eligible for Closure, RB Case #: 083000349T, Loc Case #: 86UT064
- CIRCLE K STORE #2211134 (FORMER MOBIL #18-GN1) (T0603715443), 8090 WARDLOW RD. E., LUST Cleanup Site, Cleanup Status: Open - Eligible for Closure, RB Case #: 908080016A, Loc Case #: 02-5254
- Monte Collins Property (T10000010252), 3342 Cerritos Avenue, Cleanup Program Site, Cleanup Status: Open - Site Assessment
- Cottonwood Church (T10000008413), 3311 Sausalito Street, Cleanup Program Site, Cleanup Status: Open - Assessment & Interim Remedial Action, RB Case #: 083004058T
- EL DORADO CLEANER (SL204BF1760), 8171 WARDLOW, Cleanup Program Site, Cleanup Status: Open – Remediation, RB Case #: 0822

According to the Phase I ESA report (The Phase One Group, 2019, p. 20; **Appendix L**), a total of 19 LUST facilities are identified within one-half mile of the project site. Los Alamitos High School is listed on the DTSC EnviroStor database (DTSC, 2018a). A school site evaluation was completed in 2005 on the site and a NFA letter was issued by the DTSC on May 17, 2005 (DTSC, 2005). The issuance of the NFA letter indicates that the DTSC has concluded that there are no contaminants of concern on the Los Alamitos High School site.

Other than the listings described above, the database review (DTSC, 2018a and DTSC, 2018b) indicates there are no database listings of hazardous materials sites pursuant to Government Code § 65962.5, or a list of hazardous substance release sites identified by the state Department of Health Services pursuant to § 25356 of the Health & Safety Code on the proposed project site, or a hazardous waste disposal site on the proposed project site. Therefore, no impacts would occur.

27 If corrective action is not taken on or before the date specified in a CDO or CAO, or if immediate corrective action is necessary to remedy or prevent an imminent substantial danger to the public health, domestic livestock, wildlife, or the environment, the DTSC may take, or contract for, corrective action and recover the cost from a responsible party.



- 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 for people residing or working in the project area?**

Less than Significant Impact

Airport Land Use Compatibility Plan (ALUCP). An ALUCP is a planning document that contains policies for promoting safety and compatibility between public use airports and the communities that surround them. The Orange County Airport Land Use Commission (OCLUC) has adopted the comprehensive Los Angeles County ALUCP that covers all of the airports within its jurisdiction. The document was formerly known as the Los Angeles County Airport Land Use Plan and the Los Angeles County Airport ALUC Comprehensive Land Use Plan.

Airport Influence Area (AIA). AIA is the area in which current or future airport-related noise, overflight, safety, and/or airspace protection factors may significantly affect land uses or necessitate restrictions on those uses. It includes airport owned property, Runway Protection Zones (RPZ), inner and outer safety zones and Community Noise Equivalent Level (CNEL) contours. According to Section 1.3.2 (page 25) of the State Airport Land Use Planning Handbook, “The planning boundary of the ALUCP is the “airport influence area,” and is established by the ALUC after a hearing and consultation with the involved agencies (PUC § 21675 [c]).”

Airport Environs Land Use Plan for the Los Alamitos Joint Forces Training Base

The Los Alamitos Joint Forces Training Base (JFTB) (Seal Beach VORTAC SLI) Airport is located 1.5 miles southeast of the project site, south of Katella Avenue and east of Los Alamitos Boulevard. The Los Alamitos JFTB Airport is a private airport owned by the United States Army. It is within the oversight of the Orange County Airport Land Use Commission (ALUC). The current Airport Environs Land Use Plan (AELUP) for the JFTB was amended in 2017 (Orange County Airport Land Use Commission, 2017). The project site is within the notification area of the airport per Federal Aviation Regulation (FAR) Part 77, Section 77.9 (refer to **Figure 4.9-1**). Notice to the Federal Aviation Administration (FAA) is required for any proposed structure more than 200 feet Above Ground Level (AGL) of its site within any jurisdiction.

The Long Beach Airport is approximately 3.7 miles west of the project site. The project site is outside the Airport Influence Area established by the Los Angeles County Airport Land Use Commission (Los Angeles County Airport Land Use Commission, 2003).

The Education Code § 17215 (a)&(b) requires school sites built or acquired after January 1, 1996 to be two nautical miles (12,152 feet) from an airstrip. Los Alamitos High School was built in 1968 and therefore is exempt from this requirement. For these reasons, impacts would be considered less than significant due to the proximity of an airport to the project site.

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

Less than Significant Impact

Regional emergency response plans relevant to the project site include the City’s Emergency Operations Plan, the Orange County Operational Area Emergency Response Plan, and the County’s Hazard Mitigation Plan. Each school site in the Los Alamitos Unified School District has a



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Comprehensive Safe School Plan (CSSP), an Emergency Preparedness Plan, and a Crisis Intervention Plan. These three documents cover all aspects of campus safety. The CSSP is reviewed and updated on an annual basis by the School Site Council and subsequently Board approved. The CSSP is also on file at the Orange County Department of Education (CDE, 2018a).

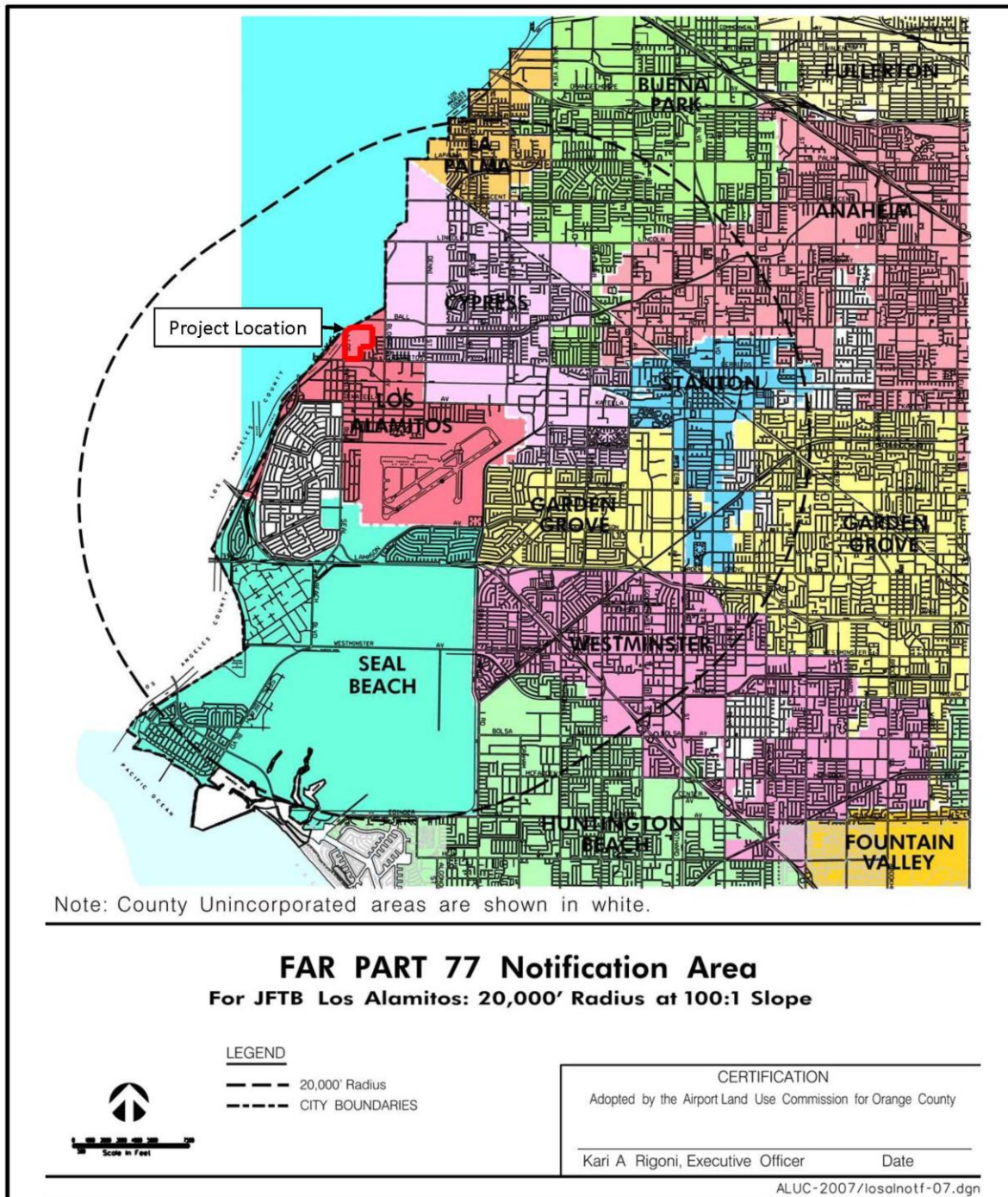
Construction

Construction is anticipated to run from early January 2020 to early January 2022. As discussed in **Section 4.17**, Transportation and Traffic, of this Draft IS/MND, during the construction period, the proposed project would generate temporary construction-related truck and automobile traffic. Traffic during the construction phase would include construction workers traveling to and from the project site, trucks hauling construction materials to the site and transporting material away from the site on public roadways. Other than delivery of materials and supplies to the project site and the hauling of debris and soil from the project site, construction of the proposed project would be confined within the campus boundaries.



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Figure 4.9-1
JFTB AIRPORT INFLUENCE AREA



Disclaimer: Illustration provided by the Airport Land Use Commission, who has indicated that the information is true and correct. No other warranties are expressed or implied

Source: Airport Land Use Commission, 2007



Los Alamitos High School
Multistory STEM Classroom Building

Airport Influence Area for
Los Alamitos Army Airfield



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During construction, emergency response procedures would be governed by the District's emergency response protocol and the contractor's emergency response plan. Construction work would not impede emergency access in the surrounding community. Public schools are considered critical community facilities and are often used as evacuation centers during disasters. Project construction would be completed in one phase and confined to the proposed building site, which would still allow use of the rest of the campus in the event of an emergency. The level of construction-related traffic would not result in significant impact on the study area street network or emergency access. Therefore, the potential for the project to impair implementation of, or physically interfere with, an adopted emergency response plan or emergency evacuation plan during construction would be considered less than significant.

Operation

Upon completion of the proposed project, the District-wide and school-specific emergency response plans, policies, and guidance developed by LAUSD would apply to the new facilities. In addition, LAUSD developed a district-wide Emergency Operations Plan (EOP) that assigns responsibilities and provides a framework for coordination of response and recovery efforts in the event of an emergency.

District schools are also required to comply with California Code Sections 32281-32289, dealing with the preparation of Safe School Plans (SSPs), which must be reviewed and updated every year. The proposed project would conform to local ordinances and would not interfere with an existing emergency response or evacuation plan(s) including the City's Emergency Operations Plan, the Orange County Operational Area Emergency Response Plan, and the County's Hazard Mitigation Plan.

The proposed project would be designed, approved and constructed in accordance with the requirements of the Division of State Architect (DSA), the latest adopted version of the CBC for the construction of public school buildings, and the recommendations outlined in the DSA's IR. The new building will be in compliance with applicable building codes and regulations including structural design, current seismic standards, relocatable buildings, fire-resistive building materials, fire alarms, fire suppression equipment, safe occupant egress, and firefighting equipment access. Compliance with these standards and code requirements would ensure implementation of structural safety and fire protection.

The project would comply with applicable DSA Fire, Life and Safety regulations; Orange County Fire Authority (OCFA) regulations; and the California Building Codes. Prior to the DSA approval of the project site plans, the OCFA would review the proposed site plans, including the location of all structures, fences, drive gates, or other features that may affect emergency access. Fire lanes would be provided as required for adequate emergency access. DSA's and OCFA's review process and compliance with applicable regulations and standards would ensure that adequate emergency access would be provided at the project site at all times. Therefore, emergency responders would have adequate access in case of an emergency, and no impact would occur during project operation.

The project site is an existing school campus that would continue to adhere to the District's and school's emergency response plans and policies. The proposed project would not change the existing land use or require any future land use changes. The project would not increase the number of students attending and is not expected to increase resulting traffic to and from the site thus it would not result in substantial changes to circulation patterns or emergency access routes in the area. Operation of the proposed project would not impair or physically interfere with the City of Los Alamitos emergency preparedness plans. Los Alamitos High School students and faculty would comply with applicable emergency plans and would not obstruct the City's evacuation routes or



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impede emergency ingress or egress. For these reasons, the potential for the project during operation to impair implementation of, or physically interfere with, an adopted emergency response plan or emergency evacuation plan would be considered no impact.

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

No Impact

The California Department of Forestry and Fire Protection (CAL FIRE) developed Fire Hazard Severity Zones (FHSZ) for State Responsibility Areas (SRAs) (refer to **Figure 4.9-2**) and Very High FHSZs in Local Responsibility Areas (LRAs) (refer to **Figure 4.9-3**). As shown on **Figures 4.9-3** and **4.9-4**, the project site is not located within a designated FHSZ for SRA or LRA areas. Furthermore, according to the Public Facilities and Safety Element of the Los Alamitos General Plan (PlaceWorks, 2015, p. 34), due to the urban nature of Los Alamitos and the surrounding communities, there is very little risk of wildland fire hazards (fires that burn in woodland, brushland and grassland areas). The primary fire hazard is urban fires—those that burn in developed areas and include commercial, industrial and residential structures.

The proposed project would include required fire suppression design features identified in the latest edition of the California Building Code (CBC), and would comply with California's DSA and Orange County Fire Authority requirements. With adherence to applicable regulations and the proximity to the nearest fire station, no impacts due to wildland fire exposure would be anticipated.

- h) Is the property line of the proposed school site less than the following distances from the edge of respective power line easements: (1) 100 feet for 50-133 kV line; (2) 150 feet for 220-230 kV line; or (3) 350 feet for 500-550 kV line?**

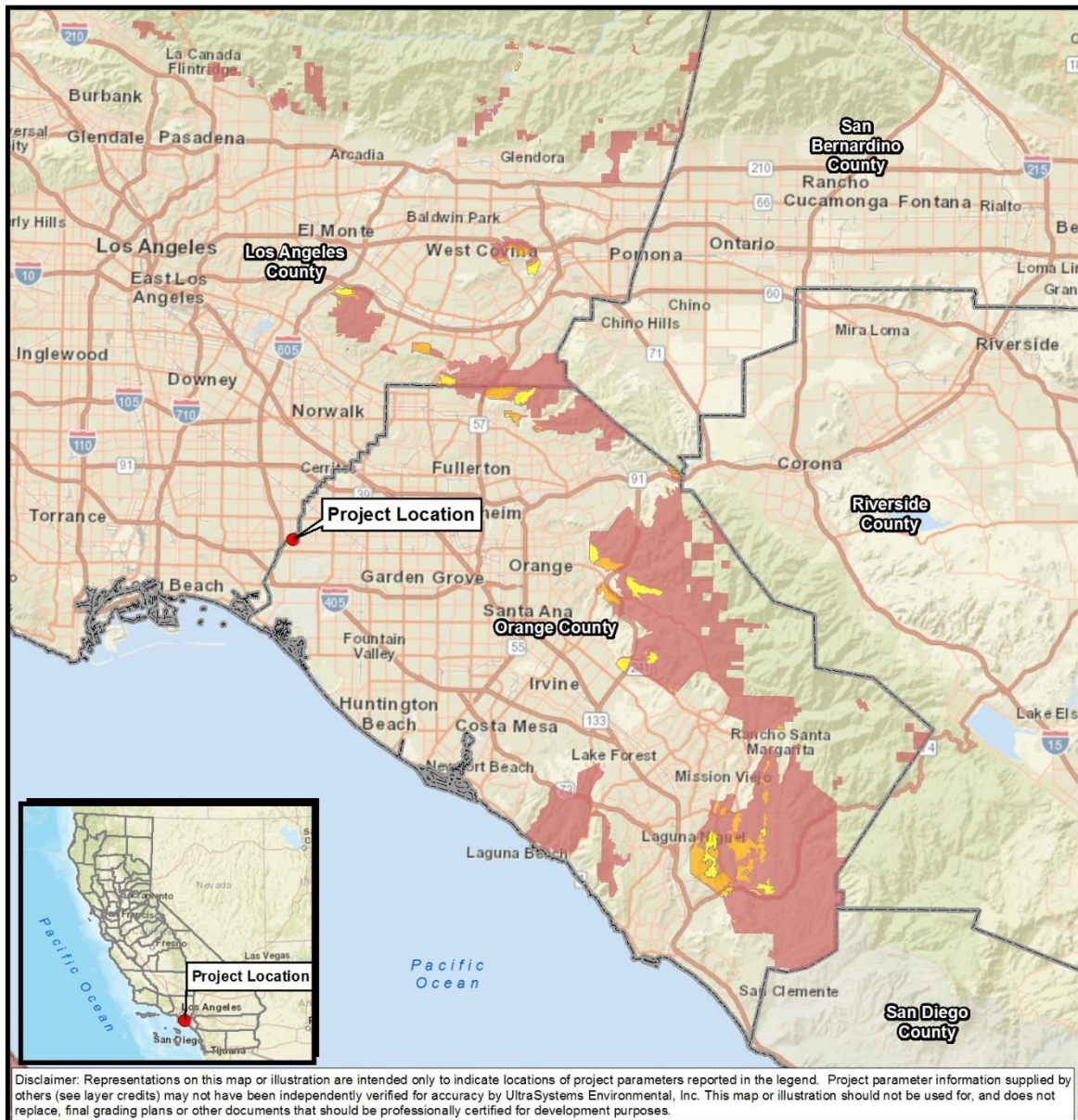
Less than Significant Impact

Pursuant to CCR, Title 5, Section 14010(c), the property line for a new school site shall not be the following minimum distances from the edge of a high-voltage power line easement: 100 feet for 50-133 kV lines; 150 feet for 220-230 kV lines; and 350 feet for 500-550 kV lines. Local utility lines are located along the streets surrounding the project site. These include two existing Southern California Edison (SCE) overhead single circuit 66kV transmission lines running east-west along Cerritos Avenue and running north-south along Los Alamitos Boulevard (California Energy Commission, 2018). The east-west power line (on Cerritos Avenue) is 240 feet from the school property, and 260 feet from the proposed project site. The north-south power line (on Los Alamitos Boulevard) is 120 feet from the school property, and 460 feet from the proposed project site. For both power lines, the proposed project is well beyond the CDE-recommended setback of 100 feet (UltraSystems Environmental, 2019b).



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Figure 4.9-2
FIRE HAZARD SEVERITY ZONES – STATE RESPONSIBILITY AREA



Scale 1:506,880



0 4 8 Miles

0 4 8 Kilometers

Legend

● Project Location

□ County Boundary

Fire Hazard Severity Zones

■ Moderate

■ High

■ Very High

Los Alamitos High School Multistory STEM Classroom Building

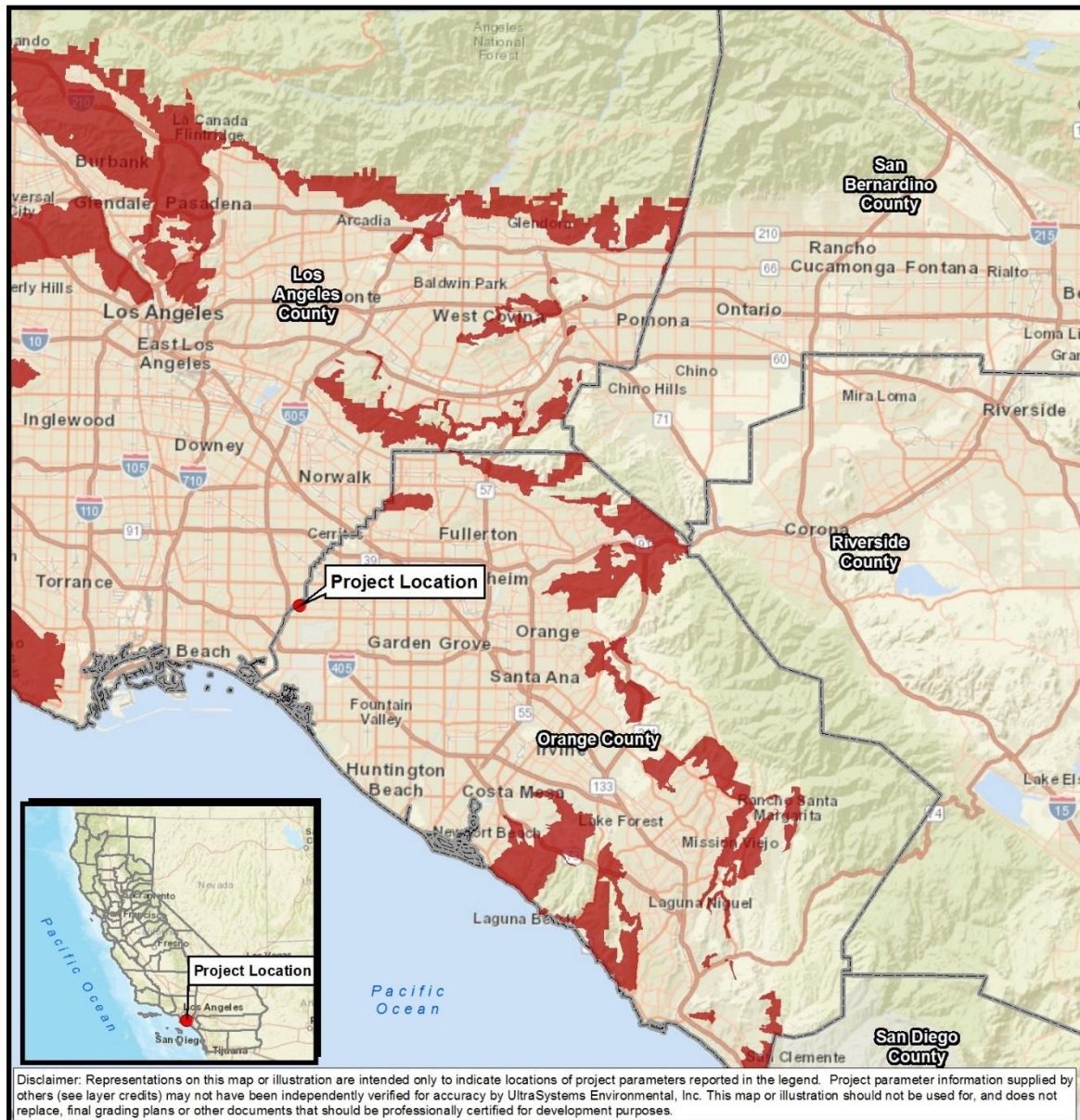
Fire Hazard Severity Zone
State Responsibility Area (SRA)





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Figure 4.9-3
FIRE HAZARD SEVERITY ZONES – LOCAL RESPONSIBILITY AREA



Path: J:\Projects\6090_LosAl_MultiStory_Building\MXDs\GIS_MND\6090_LosAl_MS_Building_4_8_Fire_Hazards_LRA_2019_02_11.mxd
Service Layer Credits: Sources: Esri, HERE, DeLorme, USGS, Intermap, INCREMENT P, NRCan, Esri Japan, METI, Esri China (Hong Kong), Esri Korea, Esri (Thailand), MapmyIndia, NGCC, © OpenStreetMap contributors, and the GIS User Community; Cal Fire, 2007/2011-2012; UltraSystems Environmental, Inc., 2018

February 11, 2019

Scale 1:506,880



0 4 8 Miles

0 4 8 Kilometers

Legend

- Project Location
- ▭ County Boundary

Fire Hazard Severity Zones in LRA (CAL FIRE Recommended 2011/2012):

- Very High

Los Alamitos High School Multistory STEM Classroom Building

Fire Hazard Severity Zone
Local Responsibility Area (LRA)





❖ SECTION 4.9 - HAZARDS AND HAZARDOUS MATERIALS ❖

The proposed project is located on an existing school site. The new building would be constructed within the existing campus. However, the project would place the new STEM building closer to the existing SCE 66Kv overhead power transmission line located on Cerritos Avenue than the existing buildings. The current administration building is located approximately 260 feet north of the power line and the new STEM building will be located approximately 220 feet north of the power line, approximately 40 feet closer to the existing power line easement. No new power lines are planned to be constructed as part of this project.

An electromagnetic field (EMF) study was conducted by UltraSystems Environmental (2019b) (see **Appendix I**). The objectives for the EMF measurements are to determine ambient levels of EMF at and around the existing high school and proposed multi-story building site, and to find and measure the highest and lowest ambient radiated electric fields and magnetic fields within the area of potential effects. Within the general area of the school is an array of overhead power lines and radio transmission towers that produce a constant source of EMF throughout the vicinity. The results of the study indicated the EMF strength diminishes by approximately 71 percent from the power lines to the school site. The background EMF value at the school was approximately 1.6 milligauss, which corresponds with the ambient magnetic B-field measurement at 60 Hertz. The proposed project activity will not occur closer to the power lines than the existing school buildings are currently, and neither student enrollment nor faculty and staff employment will increase because of the proposed project. Because the EMF produced by the power lines dissipates to a level similar to the general ambient level of EMF at the existing school, the project will not result in an increased exposure of students, faculty or staff to EMF (UltraSystems Environmental 2019b; see **Appendix I**).

- i) **Is the proposed school site located near an aboveground water or fuel storage tank or within 1,500 feet of an easement of an aboveground or underground pipeline that can pose a safety hazard to the site?**

Less than Significant Impact with Mitigation

Potable water to the site is provided by underground distribution system. The Los Alamitos High School campus does not have an above ground water tank on the site. There are also no aboveground fuel storage tanks located on the school site. According to the Phase I ESA report (The Phase One Group, 2019, p. 22; **Appendix L**), no ASTs are listed on or adjacent to the project site.

In 1981, the California Legislature established the Hazardous Liquid Pipeline Safety Act so that the Office of the State Fire Marshal may exercise exclusive safety regulatory and enforcement authority over intrastate hazardous liquid pipelines. The Office of the State Fire Marshal currently regulates the safety of approximately 6,500 miles of intrastate hazardous liquid transportation pipelines. The Pipeline Safety Division consists of engineers, analytical staff, and clerical support located in northern, central and southern California. Pipeline Safety staff inspect pipeline operators to ensure compliance with federal and state pipeline safety laws and regulations. The Division is also responsible for the investigation of all spills, ruptures, fires, or pipeline incidents for cause and determination of probable violation (CAL FIRE, 2019). In addition, the federal Transportation Security Administration Pipeline Security Division has (1) assessed risk and prioritized efforts to help strengthen pipeline security, (2) implemented agency guidance and requirements of the Implementing Recommendations of the 9/11 Commission Act of 2007 (9/11 Commission Act) regarding pipeline security, and (3) measured its performance in strengthening pipeline security (TSA, 2019).



❖ SECTION 4.9 - HAZARDS AND HAZARDOUS MATERIALS ❖

Ninyo & Moore conducted this Pipeline Risk Analysis (PRA) of potential hazards from multiple pipelines within the vicinity of Los Alamitos High School in accordance with California Department of Education's (CDE) Guidance Protocol for School Site Pipeline Risk Analysis (URS Corporation, 2007) as required by California Education Code §17213, California Code of Regulations Title 5, § 14010(h) to analyze risk of fatality from identified pipelines within 1,500 feet of a school site (Ninyo and Moore, 2019). The PRA report prepared by Ninyo and Moore in January 2019 is included as **Appendix G** of this Draft IS/MND.

Ninyo & Moore researched high-pressure hazardous liquid and natural gas lines within the site vicinity on the NPMS. According to the NPMS, high-pressure natural gas distribution lines are not present within 1,500 feet of the site (See **Figure 4.9-4**). Multiple high-pressure hazardous liquid pipelines are located within 1,500 feet of the site, which include:

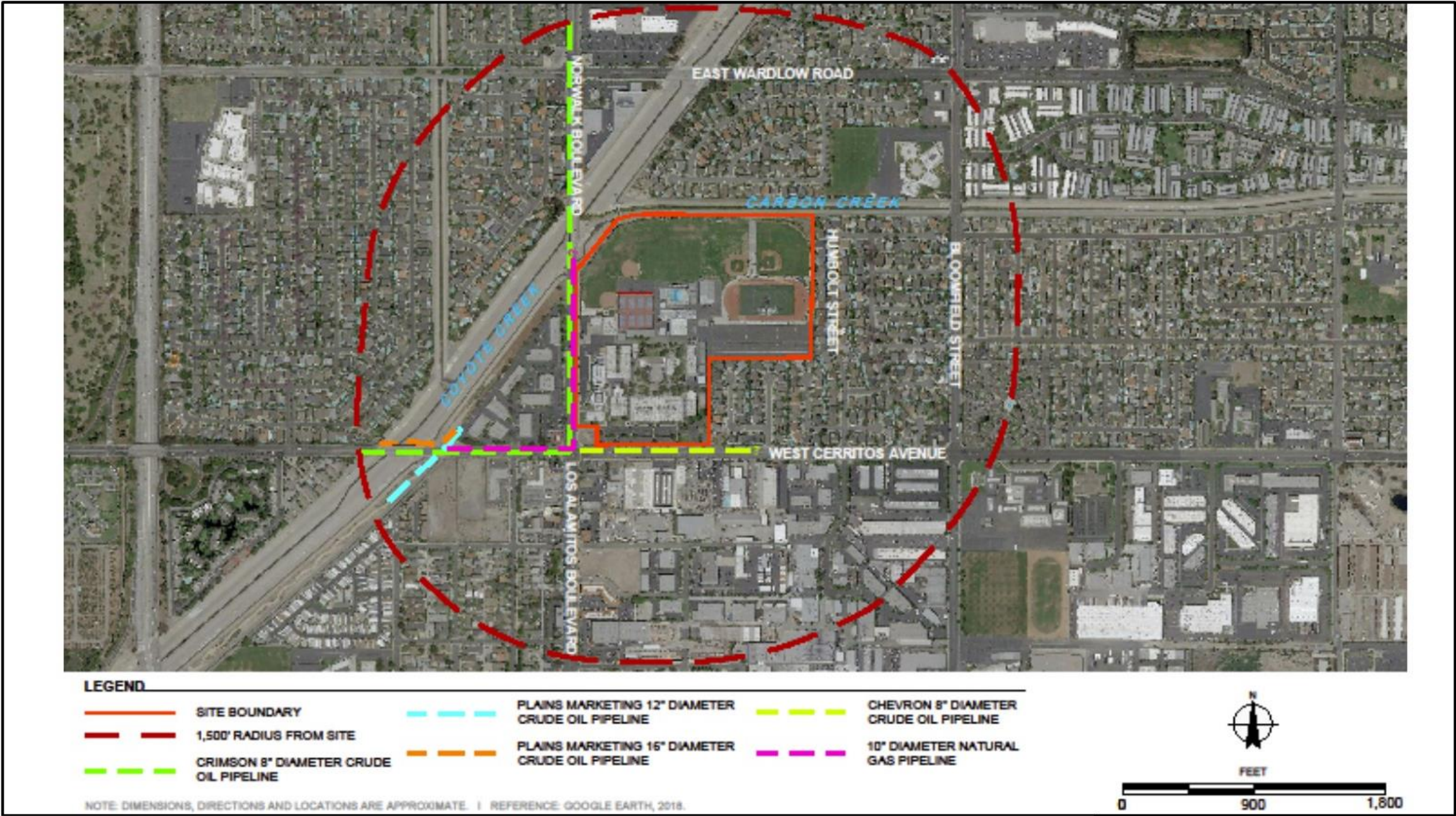
- Pacific Pipeline Line 008 (ID 008A, C), permanently abandoned.
- Crimson Pipeline East Crude Line 700 (ID 339), active, containing crude oil.
- Plains Marketing Line 507 (ID 3890), active and unfilled, containing crude oil.
- Plains Marketing Line 512 (ID 3889), active and unfilled, containing crude oil.

Ninyo & Moore researched high-pressure natural gas lines within the site vicinity on the Southern California Gas Company Natural Gas Pipeline Map. According to the online map, a high-pressure natural gas distribution line or transmission line is not present within 1,500 feet of the site. The nearest high-pressure line is a transmission line approximately one mile west of the site.

Four pipelines, two 8-inch diameter crude oil pipelines, one 12-inch diameter crude oil pipeline, and one 16-inch diameter crude oil pipeline, are located within 1,500 feet of the site and were analyzed to evaluate the risk posed to potential receptors (Ninyo and Moore, 2019). See **Figure 4.9-4**. The CDE Guidance Protocol for School Site Pipeline Risk Analysis was used to perform the risk analysis. Natural gas pipelines within the site vicinity operate at a medium pressure less than 60 psi, and thus do not apply to the CDE protocol. Stage II Risk Analysis was acceptable for the 12-inch diameter and 16-inch diameter pipelines due to their distance from the site. A Stage III Risk Analysis using real-world data was required for the two 8-inch diameter pipelines based on their close proximity to the site. Using the CDE protocol, the individual risks for the defined leak and rupture scenarios from the pipelines are acceptable (below the IRC of 1.0E-06 [one chance in a million each year]). The results indicate total individual risks for the crude oil pipelines as follows:

- A total individual risk for the 8-inch diameter Chevron pipeline is 2.7 E-08 based on the results of a Stage III analysis.
- Total individual risk for the 8-inch diameter Crimson pipeline is 0.00E+00 based on the results of a Stage III analysis.
- Total individual risks for the Plains 12-inch and 16-inch diameter pipelines are both 0.00E+00 based on the results of a Stage II analysis.

Figure 4.9-4
PIPELINE LOCATIONS WITHIN 1,500 FEET RADIUS OF SITE



Disclaimer: Illustration provided by Ninyo and Moore, who has indicated that the information is true and correct. No other warranties are expressed or implied

Source: Ninyo and Moore, 2019, Figure 3.



**Los Alamos High School
Multistory STEM Classroom Building**

PIPELINE LOCATIONS WITHIN 1,500 FEET RADIUS OF SITE



❖ SECTION 4.9 – HAZARDS AND HAZARDOUS MATERIALS ❖

Based on the results of this PRA (Ninyo and Moore, 2019), the potential hazards at the site meet the acceptable risk criteria of the CDE protocol. The CDE protocol provides acceptable fatality criteria for small leak and full rupture events. However, if desired by Los Alamitos Unified School District to increase site safety and decrease probabilities of incidents occurring to the pipelines, the best course of action is to first prevent a significant accident from occurring, and second, create procedures to reduce the risk if an accident occurs.

The PRA (Ninyo and Moore, 2019, p. 18) recommended the following mitigation measures:

- MM HAZ-8** Special permit procedures should be considered for any excavation adjacent to the pipelines within 1,500 feet of the site; namely the 8-inch diameter crude oil pipelines operated by Crimson and Chevron along Norwalk Boulevard and Cerritos Avenue, such as the presence of pipeline operation personnel during excavation, the issuance of a permit, and proper licensing of the excavation contractor. This would be in addition to the mandatory notification of the Underground Service Alert within 48 hours of proposed excavation so utilities and other underground structures can be marked. These actions would significantly reduce the potential for construction damage to the pipelines that could lead to a significant and potentially hazardous event.
- MM HAZ-9** Crimson and Chevron should provide written assurances to the Los Alamitos Unified School District that they are in full compliance with all Federal, State, and local statutes, regulations, and laws relevant to the operation of the pipelines, and shall remain in compliance throughout the period they are in operation. These assurances should also apply to inspection and repair programs for the pipeline, shutoff valves, corrosion protection, and emergency response. Crimson and Chevron should notify the Los Alamitos School District when they have plans to work on these pipelines within 1,500 feet of the site.
- MM HAZ-10** An emergency response and excavation plan should be prepared for the site (if not currently prepared and available) that includes, but are not limited to, considerations of a pipeline leak or rupture within the vicinity of the site. The plan should establish logical egress steps for evacuation that will reduce the chances of injury and/or fatality from events that could occur due to the rupture of pipelines.

Level of Significance after Mitigation

With the implementation of mitigation measures **HAZ-8** through **HAZ-10** described above, the safety hazard posed to the public by nearby underground pipelines would be reduced to less than significant.

- j) **Is the proposed school site situated within 2,000 feet of significant disposal of hazardous waste?**

No Impact

Refer to **Section d)** above, no evidence of mines, debris, naturally occurring hazardous materials within the project site was observed or reported. A review of regulatory databases indicated there was no significant disposal of hazardous waste reported within 2,000 feet of the project site (refer to



❖ SECTION 4.9 – HAZARDS AND HAZARDOUS MATERIALS ❖

Section d). Based on these findings, no impact from naturally occurring hazardous materials or hazardous materials disposal would occur.

- k) Does the proposed school site contain one or more pipelines, situated underground or aboveground, which carry hazardous substances, acutely hazardous materials or hazardous wastes, unless the pipeline is a natural gas line that is used only to supply natural gas to that school or neighborhood?**

No Impact

Refer to **Section i)** above. The PRA report prepared by Ninyo and Moore in January 2019 is included as **Appendix G** of this Draft IS/MND. Multiple high-pressure hazardous liquid pipelines are located within 1,500 feet of the site but none are located on the school site itself. Therefore, no impact would occur.

- l) Is the school site in an area designated in a city, county, or city and county general plan for agricultural use and zoned for agricultural production, and if so, do neighboring agricultural uses have the potential to result in any public health and safety issues that may affect the pupils and employees at the school site?**

No Impact

As stated in the PEA (EDF-Associates, LLC, 2005), based on the historical information reviewed, the project site was used for farmland from about 1938 until 1968. Los Alamitos High School was constructed in 1968, and the site has only been used for the Los Alamitos High School since then. The PEA report indicated no prior testing for pesticide and/or herbicide use on the site had been done (at the time of the report). Samples were analyzed for organo-chloride pesticides by USEPA Method 8081A. Minor concentrations (less than 1 mg/kg) of the pesticides 4,4'-DDE was detected in all but five soil samples. Detected concentrations ranged from a high of 210 micrograms per Kilogram (µg/kg) to 3.1 µg/kg. The USEPA Region IX preliminary remediation goal (PRG) for 4,4'-DDE in residential soils is 1,700 µg/kg. Therefore, the detected concentrations of 4,4'-DDE were not considered significant. No other organo-chlorine pesticide was detected in any soil sample analyzed for those constituents. EDF-Associates, LLC concluded that organo-chlorine pesticides were not present in concentrations that would prevent the site from being used as intended.

The project site is in an area currently designated for Institutional District (I) in the City's General Plan. The project site is located on campus of an existing high school in a completely urban setting containing a mix of institutional, commercial, and residential uses. No agricultural land or land zoned for agricultural use is located within the project boundary or in the vicinity of the project site. Therefore, no impact would occur.

- m) Does the project site contain a current or former hazardous waste disposal site or solid waste disposal site and, if so, have the wastes been removed?**

No Impact

Refer to **Sections b), c), d), and i)** above. The database review (DTSC, 2018a and DTSC, 2018b) indicated there are no database listings of hazardous materials sites pursuant to Government Code § 65962.5, or a list of hazardous substance release sites identified by the state Department of Health



❖ SECTION 4.9 – HAZARDS AND HAZARDOUS MATERIALS ❖

Services pursuant to § 25356 of the Health & Safety Code on the proposed project site, or a hazardous waste disposal site on the proposed project site. Therefore, no impact would occur.

- n) **Is the project site a hazardous substance release site identified by the state Department of Health Services in a current list adopted pursuant to §25356 for removal or remedial action pursuant to Chapter 6.8 of Division 20 of the Health and Safety Code?**

No Impact

Refer to **Sections d)** and **m)** above. The database review (DTSC, 2018a and DTSC, 2018b) indicated there are no database listings of hazardous materials sites pursuant to Government Code § 65962.5, or a list of hazardous substance release sites identified by the state Department of Health Services pursuant to § 25356 of the Health & Safety Code on the proposed project site, or a hazardous waste disposal site on the proposed project site. Therefore, no impact would occur.

- o) **If prepared, has the risk assessment been performed with a focus on children's health posed by a hazardous materials release or threatened release, or the presence of naturally occurring hazardous materials on the school site?**

Less than Significant Impact with Mitigation

Refer to Sections **b)**, **c)**, **d)**, and **i)** above.

A PEA was conducted at the Los Alamitos High School for a previous project in 2005 (EDF-Associates, LLC, 2005). The site has not been identified on any of the regulatory databases as a hazardous waste generator, or as a facility that treats, stores or disposes of hazardous waste onsite. The conclusion of the PEA report prepared for that project determined contaminants onsite were below levels of significance and No Further Action was required (EDF-Associates, LLC, 2005). Subsequently, a NFA letter was issued by the DTSC on May 17, 2005 (DTSC, 2005) for the Los Alamitos High School Site.

A Phase I ESA was conducted on the site by The Phase One Group in April 2019. The results of the Phase I are documented in the Phase I Environmental Site Assessment Report dated June 10, 2019 and included in **Appendix L** of this Draft IS/MND. The Phase I ESA reported evidence of RECs and HRECs in connection with the project site, as detailed under thresholds b) and c) above. Mitigation measures **HAZ-1** through **HAZ-7** listed previously, have been designed to minimize or avoid potential impacts resulting from ACMs, soil contamination, and past agricultural uses, during the construction phase of the proposed project.

Additional waste characterization soil sampling was conducted by Ninyo and Moore in September and October 2018 for the project site and an Updated Technical Memorandum was prepared (Ninyo and Moore, 2018). The technical memorandum is included in **Appendix H** of this Draft IS/MND. Soil sampling was conducted to characterize soil on the site prior to planned excavation for disposal as export and to evaluate whether significant concentrations of chemicals of concern are present in soil related to the adjoining open LUST case to the southwest of the site at the former Unocal #4727 at 3501 West Cerritos Avenue. Results showed metals were below screening levels, except for arsenic. Arsenic was reported in several samples including those within the proposed building site. Detectable concentrations of VOCs were not reported. Concentrations of TPHs (DRO, MRO, and GRO) were below their respective commercial USEPA Regional Screening Levels (Ninyo and Moore, 2018). With the implementation of mitigation measures **HAZ-1** through **HAZ-7**, the potential for impacts



❖ SECTION 4.9 – HAZARDS AND HAZARDOUS MATERIALS ❖

due to a hazardous materials release or threatened release during construction would be reduced to less than significant.

As discussed in **Section i)** above, a PRA for the project was conducted by Ninyo and Moore (Ninyo and Moore, 2019). Multiple high-pressure hazardous liquid pipelines and crude oil pipelines are located within 1,500 feet of the school site. It was determined that the potential hazards at the site meet the acceptable risk criteria of the CDE protocol. However, Ninyo and Moore suggested mitigation measures to reduce potential risks of these pipelines. The implementation of mitigation measures **HAZ-8** through **HAZ-10** described above, the safety hazard posed to the public by nearby underground pipelines would be reduced to less than significant.

Level of Significance after Mitigation

With implementation of mitigation measures **HAZ-1** through **HAZ-7**, potential impacts from hazardous materials, substances, or waste would be reduced to a less than significant level.

With the implementation of mitigation measures **HAZ-8** through **HAZ-10** described above, the safety hazard posed to the public by nearby underground pipelines would be reduced to less than significant.

p) If a response action is necessary and proposed as part of this project, has it been developed to be protective of children’s health, with an ample margin of safety?

No Impact

As discussed in **Section a)**, the District’s Maintenance and Operations Department has standards and management procedures for the handling of hazardous materials that require District employees be trained in the use, storage and disposal of hazardous materials or waste, and safety procedures to be implemented in the unlikely event of a release of hazardous materials.

As discussed in **Section f)**, upon completion of the proposed project, the District-wide and school-specific emergency response plans, policies, and guidance developed by LAUSD would apply to the new facilities. In addition, LAUSD developed a district-wide Emergency Operations Plan that assigns responsibilities and provides a framework for coordination of response and recovery efforts in the event of an emergency.

District schools are also required to comply with California Code Sections 32281-32289, dealing with the preparation of School Safety Plans, which must be reviewed and updated every year. The proposed project would conform to local ordinances and would not interfere with an existing emergency response or evacuation plan(s) including the City’s Emergency Operations Plan, the Orange County Operational Area Emergency Response Plan, and the County’s Hazard Mitigation Plan.

The plans discussed above are expected to include response actions protective of children’s health, with an ample margin of safety, and therefore no impact would occur.



❖ SECTION 4.9 – HAZARDS AND HAZARDOUS MATERIALS ❖

- q) Is the proposed school site within two miles, measured by air line, of that point on an airport runway or potential runway included in an airport master plan that is nearest to the site? (Does not apply to school sites acquired prior to January 1, 1996.)

No Impact

Since the school was built in 1968, this threshold is not applicable and therefore, no impacts are anticipated.



4.10 Hydrology and Water Quality

Would the project:	Potentially Significant Impact	Less than Significant Impact 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?			X	
b) Substantially decrease groundwater supplies or interfere substantially with groundwater recharge such that the project may impede sustainable groundwater management of the basin?			X	
c) Substantially alter the existing drainage pattern of the site or area, including through the alteration of the course of a stream or river or through the addition of impervious surfaces, in a manner which would:				
i. result in substantial erosion or siltation on- or off-site;			X	
ii. substantially increase the rate or amount of surface runoff in a manner which would result in flooding on- or offsite;			X	
iii. create or contribute runoff water which would exceed the capacity of existing or planned stormwater drainage systems or provide substantial additional sources of polluted runoff; or			X	
iv. impede or redirect flood flows?			X	
d) In flood hazard, tsunami, or seiche zones, risk release of pollutants due to project inundation?			X	
e) Conflict with or obstruct implementation of a water quality control plan or sustainable groundwater management plan?			X	

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

Less than Significant Impact

The project site is bordered on the north by Carbon Creek and, on the northwest corner of the project site, the confluence of Carbon Creek and Coyote Creek. Approximately 1.75 miles downstream of this confluence, Coyote Creek discharges into the San Gabriel River. The San Gabriel River discharges into



❖ SECTION 4.10 - HYDROLOGY AND WATER QUALITY ❖

Alamitos Bay approximately 3.25 miles downstream from Coyote Creek. The proposed multistory building would be located in the southwestern corner of the campus, and is therefore not adjacent to either channel.

Runoff from the Los Alamitos High School site currently discharges via curbside drains into gutters. Stormwater discharged from the campus then enters one of two storm drain catch basins located on: (1) the northeast corner of Cerritos Avenue and Los Alamitos Boulevard, and (2) the eastern side of Norwalk Boulevard, approximately 140 feet north of the intersection. These catch basins are connected to a single-barrel reinforced concrete box (RCB) culvert measuring six feet in width by five feet in height (6' x 5'), which is designed to accommodate area runoff volumes. This culvert discharges into a single-barrel 10' x 4' RCB beginning beneath the north side of Cerritos Boulevard and transitioning into Los Alamitos Channel south of Cerritos Boulevard. Los Alamitos Channel generally parallels the San Gabriel River to the Los Alamitos Retarding Basin, approximately 4.2 miles south of the project site. Stormwater leaving the project site ultimately discharges into the San Gabriel River near Pacific Coast Highway (Hwy 1), less than 1.5 miles upstream from the Alamitos Bay inlet, and does not discharge into Carbon Canyon Creek Channel or Coyote Creek Channel.

For the San Gabriel River Estuary (south of Willow Street), the Los Angeles RWQCB (LARWQCB) Basin Plan sets numeric objectives for ammonia, total dissolved solids (TDS), chloride, sulfate, and nitrogen; however, additional site-specific water quality objectives have not been set for these waters due to chronic impairment by minerals and lack of historic water quality data with which to designate objectives based on natural background conditions (LARWQCB, 1994, as amended).

The San Gabriel River Reach 1 (Estuary to Firestone Boulevard), the San Gabriel Estuary, and Alamitos Bay are on the 2014-2016 Approved List of Impaired Waters (303[d] List). Impairment data is presented in **Table 4.10-1**, 2014 - 2016 § 303(d) Listed Water Bodies in the Project Area (SWRCB, 2019).

Table 4.10-1
2014 - 2016 § 303(D) LISTED WATER BODIES IN THE PROJECT AREA

Water Body Name	Integrated Report Category	USGS Cataloging Unit ¹	Pollutant	TMDL Requirement Status ²	Expected TMDL Completion Date ²	USEPA TMDL Approval Date ³	Potential Source
San Gabriel River Reach 1	5	18070104	pH	5A	2009	N/A	Unknown
San Gabriel River Reach 1	5	18070104	Water Temperature	5A	2027	N/A	Unknown
San Gabriel River Estuary	5	18070104	Nickel	5A	2021	N/A	Unknown
San Gabriel River Estuary	5	18070104	Dissolved Oxygen	5A	2021	N/A	Unknown
San Gabriel River Estuary	5	18070104	Copper	5B	N/A	3/27/2007	Unknown
San Gabriel River Estuary	5	18070104	Dioxin	5A	2021	N/A	Unknown



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Water Body Name	Integrated Report Category	USGS Cataloging Unit ¹	Pollutant	TMDL Requirement Status ²	Expected TMDL Completion Date ²	USEPA TMDL Approval Date ³	Potential Source
San Gabriel River Estuary	5	18070104	Indicator Bacteria (fecal)	5B	N/A	6/14/2016	Unknown
Alamitos Bay	5	18070104	Indicator Bacteria (fecal)	5A	2019	N/A	Unknown
Alamitos Bay	5	18070104	Dissolved Oxygen	5A	2027	N/A	Unknown

1. USGS Cataloging Unit = U.S. Geological Survey Hydrologic Unit Code

2. TMDL requirement status definitions for listed pollutants are:

A. TMDL still required

B. Being addressed by USEPA-approved TMDL

3. Dates relate to the TMDL requirement status, so there will only be one applicable date for each listing.

Metals: Nickel and its compounds are naturally present in the Earth's crust and an estimated 17.7 million pounds are emitted into the atmosphere from natural discharges such as windblown dust and volcanic eruptions. However, in 2002, an estimated 37,558,704 pounds of nickel were released into the environment through facilities in the United States that produce, process, or used nickel compounds for such things as the burning of fossil fuels, nickel metal refining, municipal incineration, steel production, and coal combustion (ATSDR, 2019). Copper is also found naturally in the environment and can result from natural discharges such as windblown dust, released from native soils, volcanoes, decaying vegetation, forest fires, and sea spray. However, approximately 1,400,000,000 pounds of copper were released into the environment in 2000. Copper is often found near mines, smelters, industrial areas, landfills and other waste disposal sites, and areas where fossil fuels are burned (ATSDR, 2019).

Dioxin: Dioxin is a short term for a family of 75 different compounds commonly referred to as polychlorinated dioxins (CCDs). CCDs are known to occur naturally, such as from the incomplete combustion of organic material from forest fires or volcanic activity. Dioxins emissions are also unintentionally produced by industrial, municipal, and domestic incineration and combustion processes. Anthropogenic sources of dioxins are believed to be the predominant source of dioxins in the environment (ATSDR, 2019).

pH: pH is the measure of hydrogen ion activity, measured on a logarithmic scale from 0 to 14. The pH of pure water at 25°C (77°F) is 7.0; however, the pH of natural fresh water is usually slightly basic (above 7.0) due to the solubility of carbon dioxide in the atmosphere. Changes in the pH of water can increase the solubility of metals and other toxins, and even minor changes to the pH of water can be harmful to aquatic life (LARWQCB, 1994, as amended).

Water Temperature: Wastewater is often of a higher temperature than that of receiving waters, and can increase the temperature of receiving waters. Higher than normal water temperatures may adversely affect aquatic life in several ways; for example, increased water temperature can cause physical stress to aquatic animals, and higher water temperatures will also decrease the amount of dissolved oxygen that water can hold, causing aquatic animals additional physical stress or even causing death by suffocation.



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Indicator Bacteria (fecal): Total and fecal bacteria are used to indicate the likelihood of pathogenic bacteria in surface waters. The presence of fecal bacteria is used as an indicator that other, potentially harmful, fecal bacteria could be present (indicated by the presence of *Escherichia coli* [*E. coli*]). Because indicator bacteria occur in the guts of mammals, including humans, the presence of fecal indicator bacteria means that the water has been contaminated by human or animal feces, or soil containing feces, and therefore may also be carrying other biological pathogens.

Development of the proposed project may result in two types of water quality impacts: (1) short-term temporary impacts due to construction-related discharges; and (2) long-term permanent impacts from operation or post-construction changes in site runoff characteristics. Runoff may carry onsite surface pollutants to receiving water bodies such as storm drains and channels that ultimately discharge into the ocean. Projects that increase urban runoff may also indirectly increase local and regional flooding intensity and erosion.

Construction Pollutants Control

Temporary impacts to water quality could result from stormwater runoff during construction of the project. Construction projects typically expose soil to erosion and may temporarily alter drainage patterns. Disturbed soils accelerate erosion and increase sediment in stormwater runoff to receiving waters, causing increased turbidity, which can lead to increased water temperatures and decreased levels of dissolved oxygen.

Stormwater runoff during construction may contain soil amendments such as fertilizers and pesticides, entrained soil, trash, waste oil, paints, solvents and other substances used during construction. Section 402 of the Federal Water Pollution Control Act (FWPCA) requires projects that would disturb one acre or more of soil to obtain a National Pollutant Discharge Elimination System (NPDES) General Construction Permit. As part of the permit conditions, the District is required to submit a Notice of Intent (NOI) and a Storm Water Pollution Prevention Plan (SWPPP) to the State Water Resources Control Board (SWRCB), which identifies site-specific BMPs to eliminate or reduce the release of soil and pollutants in stormwater and non-storm water discharges from the construction site. The NPDES permit requires enforceable limits on sediment discharges, effluent monitoring, annual reporting, and construction and post-construction BMPs to eliminate or reduce point and non-point source discharges of pollutants.

Construction of the proposed project would include the transport, storage, and use of chemical agents, solvents, paints, and other hazardous materials commonly associated with construction activities. Chemical transport, storage, and use would comply with the Resource Conservation and Recovery Act (RCRA); Comprehensive Environmental Response, Compensation, and Liability Act (CERCLA); California's Hazardous Waste Control laws (27 CCR § 15100, Unified Program); Occupational Health and Safety Administration (OSHA), Orange County Fire Authority and Regional Water Quality Control Board (RWQCB) requirements.

For these reasons, potential violations of water quality standards or waste discharge requirements would be less than significant during project construction.

Operational Pollutant Controls

The proposed STEM classroom building would include physics labs on the second floor, biology labs on the third floor, and chemistry labs on both floors. These labs commonly utilize compounds such as concentrated acids (e.g., nitric acid), concentrated bases (e.g., sodium hydroxide), solvents (e.g.,



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methanol), oxidizers (e.g., lead nitrate), and toxins (e.g., cyanides, chromates, certain metal salts), and biological waste. Additionally, custodial and maintenance rooms may contain compounds such as acidic or alkaline drain cleaners, pesticides, paint thinners, and cleaning supplies.

Storage of these compounds and resulting wastes would comply with 22 CCR Chapter 45 *Requirements for Units and Facilities Deemed to Have a Permit by Rule* which would minimize the potential for or prevent hazardous materials or hazardous wastes, including waste from school laboratories, from leaving the school site, entering the municipal storm drains, and impacting water quality of receiving waters.

The project would also be required to comply with 22 CCR § 67450.44 *Requirements Applicable to K-12 Schools Hazardous Waste Collection, Consolidation, and Accumulation Facilities Deemed to Have a Permit by Rule* (SHWCCAF) and § 66265.19 *Assessment of Existing Tank System's Integrity*. For example, sinks and drains from biology and chemistry laboratories may be plumbed to a neutralization tank system to protect sewer plumbing and, eventually, the discharge (effluent) from wastewater treatment plants. Los Alamitos High School currently provides College Prep and Honors Courses in biology, chemistry, and physics and, in compliance with the California Code of Regulations, would likely have their hazardous waste treatment and disposal systems in place.

The Areawide Urban Stormwater Runoff Municipal Storm Sewer System (MS4) Waste Discharge Requirements (Order No. R8-2009-0030 [as amended by Order No. R8-2010-0062]; NPDES No. CAS618030) for the County of Orange, Orange County Flood Control District, and Incorporated Cities of Orange County (including the City of Los Alamitos) require new development and significant redevelopment projects to incorporate low impact development (LID) BMPs to address increases in impervious areas and to reduce the quantity of rainfall runoff and improve the quality of water that leaves a site. The BMPs must include those that remove water pollutants and reduce runoff volume of water prior to water leaving the site. The local SUSMP requires new developments to implement appropriate routine structural and nonstructural BMPs. Examples of routine structural BMPs include filtration, common area runoff minimizing landscape, energy dissipaters, inlet trash racks, and catch basins.

Additionally, as required by the City of Los Alamitos's local implementation plan and municipal ordinances on stormwater quality management (Chapter 8.44 of the Municipal Code, Stormwater and Urban Runoff Pollution Controls), projects that result in 5,000 square feet or more of impervious surfaces must submit a priority project-specific water quality management plan to the City for approval prior to the City's issuance of building or grading permits.

As detailed in the project County of Orange/Santa Ana Region Priority Project Water Quality Management Plan (WQMP) for the Los Alamitos High School Multi-Story STEM Classroom Building (Coast Engineering Designs, Inc. 2019, p. 14), "The site has been divided into four Drainage Management Areas (DMA). The hydrologic source control for all DMAs is by proprietary type catch basin insert filters.

DMA 1 covers approximately the easterly half of the proposed building roof and the hardscape between new building and existing Building A2. The LID Design Storm Capture flow would go through catch basin insert filter into a new 8-inch storm drainpipe, which would flow from north to the south, then turn west in the parking lot and eventually tie into onsite existing 15" reinforced concrete pipe (RCP) storm drain.



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DMA 2 covers approximately the westerly half of the proposed building roof and the hardscape between new building and existing Building E. The LID Design Storm Capture flow would go through catch basin insert filter into a new 8-inch storm drainpipe, which would flow from north to the south and tie into onsite existing 15-inch RCP storm drain.

DMA 3 covers the hardscape and landscaped area north of the proposed building. The LID Design Storm Capture flow would go through the catch basin insert filter into the existing 6-inch storm drain lateral pipes. The existing basins flow in two directions. The westerly two basins flow westerly and tie into onsite existing 15-inch RCP storm drain located east of building E. The easterly basin flows westerly and ties into onsite existing 15-inch RCP storm drain located east of building A2.

DMA 4 covers approximately the southerly portion of the proposed building roof which parallels to the road, and the hardscape and landscaped areas south of the proposed building and the existing building A2, all the way to the center line of the existing road. The LID Design Storm Capture flow would go through two catch basin insert filters. One basin would be located approximately on the center line of the road, on the south-easterly side. The other catch basin would be located in the existing landscaping area on the most south-westerly corner of the site along Cerritos Avenue. The catch basin would drain into Cerritos Avenue via an under sidewalk drain.

Structural source control BMPs would include, but may not be limited to, the use of efficient irrigation systems and landscape design, water conservation, smart controllers, and source control; the incorporation of requirements applicable to the individual priority project category (from the Santa Ana Regional Water Quality Control Board [RWQCB] NPDES Permit); and the provision of storm drain system stenciling and signage (Coast Engineering Designs, Inc. 2019, p. 23). Non-structural source control BMPs would include, but not be limited to, education for property owners, tenants, and occupants; activity restrictions, common area landscape management, BMP maintenance, Title 22 CCR compliance (how development will comply), uniform fire code implementation, common area litter control, employee training, common area catch basin inspection and street sweeping of private streets and parking lots (Coast Engineering Designs, Inc. 2019, p.22).

With implementation of the WQMP for the Project and the structural- and non-structural BMPs, impacts on water quality during project operation would be less than significant.

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

Less than Significant Impact

Golden State Water Company (GSWC) serves the City of Los Alamitos and nearby west Orange County communities. Water delivered to these customers is a blend of groundwater pumped from the Coastal Plain of Orange County Groundwater Basin (California Department of Water Resources [DWR] Basin 8-001; DWR, 2018) and water imported from the Colorado River Aqueduct and State Water Project (imported and distributed by the Metropolitan Water District of Southern California; GSWC, 2019). According to the 2015 Urban Water Management Plan (UWMP)—West Orange (the West Orange area includes the City of Los Alamitos; Kennedy/Jenks, 2016), prepared for GSWC, water supply for the West Orange area is considered 100 percent reliable and stable through 2040 for normal water years, single-dry years, and multiple-dry years provided that water supply from the MWD and best management practices of water extraction from the OCGB remain reliable and stable (Kennedy/Jenks, 2016).



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Development of the project would not result in substantial changes in the quantity of existing groundwater supplies because no groundwater extraction activities would occur. Although the proposed project is anticipated to result in a negligible increase in water usage due to the addition of laboratories this increase is not anticipated to substantially deplete the groundwater supply of the Orange County Coastal Plan Groundwater Basin or result in a net deficit in aquifer volume or a lowering of the local groundwater table because the number of students attending the school would not increase as a result of the proposed project. The proposed project is not expected to significantly increase water usage, including groundwater supplies, and the impact would be less than significant.

Based on the geotechnical engineering report (Terracon, 2018), historic depth to groundwater beneath the site is about 14 feet below ground surface (bgs); however, several nearby groundwater monitoring wells have measured the highest level of groundwater at 7.3 bgs but groundwater was encountered at 28 feet bgs during the geotechnical investigation. It is not anticipated that foundation of the proposed project would encounter groundwater and therefore would not impact groundwater levels and recharge. The Golden State Water District would supply the facilities with water, and no water supply wells would be constructed or used. For these reasons, impacts on groundwater supplies or recharge would be less than significant.

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

i) result in substantial erosion or siltation on- or offsite?

Less than Significant Impact

The proposed project site is relatively flat, with elevation ranging between approximately 28 and 30 feet above mean sea level, and with grading anticipated to be minimal, assumed to be less than one foot in depth (Terracon, 2018). The proposed project is anticipated to increase the amount of impervious area by nine percent (from the existing impervious area of 74,119 square feet to the proposed 82,641 square feet; Coast Engineering Designs, Inc. 2019). Implementation of LID BMPs (detailed in pages 14, 22, and 23 of the WQMP, located in **Appendix K**) would minimize potential impacts resulting from the increased impervious area to less than significant. Therefore, less than significant impacts are anticipated.

The project site is located on the grounds of the existing Los Alamitos High School campus. The project site is relatively flat and, although the campus is currently served by an existing developed stormwater drainage system that discharges stormwater into the gutters and storm drains in the surrounding streets, the proposed project would have Flogard® Lopro Catch Basin Insert Filters built into stormdrain inlets to treat stormwater prior to discharging into the existing municipal storm drains (Coast Engineering Designs, Inc. 2019). No substantial changes in the existing drainage pattern of the area are proposed, and no streams, rivers, or drainage channels exist on the site that would contribute runoff to the local drainage network. Therefore, less than significant impacts are anticipated.



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

and

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

Less Than Significant Impact

Upon completion of construction, the project would increase infiltration by only 9 percent over existing conditions (Coast Engineering Designs, Inc. 2019). The WQMP calculated that post-development runoff volume for the two-year, 24-hour storm exceeds the pre-development runoff volume for the two-year, 24-hour storm by more than 5 percent; therefore, all onsite hydrology modification controls will be increased to accommodate 110 percent of the pre-development runoff two-year peak flow rate (Coast Engineering Designs, Inc. 2019). Therefore, the potential for the project to result in flooding on or offsite is less than significant. Likewise, the potential of the project to create runoff which would exceed the capacity of existing or planned stormwater drainage systems would be less than significant. Finally, with the incorporation of the LID structural and non-structural source control BMPs into project design, the potential of the project to provide substantial additional sources of polluted runoff is also less than significant. Mitigation is not warranted.

- iv) impede or redirect flood flows?

Less than Significant Impact.

The project site is located in an area that has been mapped by the Federal Emergency Management Agency (FEMA) Flood Insurance Rate Maps (FIRMs) panel numbers 06059C0104J and 06059C0112J (FEMA, 2009) as Zone X, an area that is “...protected from the 1-percent annual chance [100-year] or greater flood hazard by a levee system that has been provisionally accredited.” However, these areas may be subject to a 0.2-percent annual chance [500-year] flood, which would potentially overtop the storm drains (i.e., levee system) or Carbon Creek to the north and Coyote Creek to the north and west.

The proposed project would have a larger footprint than the existing building that it would replace, and would be oriented differently than the original building as well as the existing buildings that would surround it. However, the proposed project would be located at the southern edge of the campus, and would be unlikely to be a significant new impediment to flood flows discharging south through the campus from Carbon Creek. Existing buildings on campus would also be impeding or redirecting flood flow through campus. The proposed project would be unlikely to impede or redirect flood flows discharging from Coyote Creek on the northwest and west due to existing “paths of least resistance”, e.g., Norwalk Boulevard, West Cerritos Avenue, and the streets and vacant lots west and south of the proposed project. The impacts would be less than significant.



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

Less than Significant Impact

Tsunamis are long wave-length, earthquake-generated ocean waves. The official Tsunami Inundation Map for the Los Alamitos and Seal Beach Quadrangles (CEMA, CGS, and USC 2009) places Los Alamitos High School, including the proposed project site, approximately 2.3 miles northeast from the northern extent of the tsunami inundation zone in these quadrangles (CEMA, CGS, and USC 2009). There would be no impact resulting from tsunami-related project inundation.

A seiche is an oscillating wave caused by wind, tidal forces, earthquakes, landslides and other phenomena in a closed or partially closed water body such as a river, lake, reservoir, pond, and other large inland water body. The closed water bodies nearest to the proposed project are in the El Dorado Nature Center and the El Dorado Regional Park, both approximately 1 mile west of the proposed project site and separated from the site by the Coyote Creek Channel. Water resulting from a seiche associated with any of these water bodies is unlikely to reach the proposed project, much less inundate it. There would be no impact resulting from seiche-related project inundation.

As previously described, the project site is located in an area that has been mapped by FEMA as Zone X, an area that is “...protected from the 1-percent annual chance [100-year] or greater flood hazard by a levee system that has been provisionally accredited.” However, this area may be subject to a 0.2-percent annual chance [500-year] flood (FEMA, 2009), for which FEMA has not determined average flood depths or drainage area. During a 500-year flood event, the proposed project could potentially be inundated to an unknown depth.

As designed, storerooms containing hazardous materials (e.g., acids and bases for chemistry labs, histological fixatives for anatomy labs, etc.) used by science labs would be on the second and third floors, where they could be easily accessed by the laboratories where they would be required. In the event of a 500-year flood, the first floor of the building, including janitorial stockrooms, may potentially be inundated leading to a release of cleaning supplies into floodwaters; however, it is not anticipated that floodwaters would inundate the storerooms on the second and third floors; release of hazardous materials used in science laboratories is unlikely during a 500-year flood event. The ground floor (first floor) of the building would be dedicated to media centers, computer labs, offices, etc., and hazardous materials stored on the ground floor would be limited to janitorial supplies. Taking into account the magnitude of a 500-year flood event, and release of pollutants such as school cleaning supplies during inundation of the project by a 500-year flood event, the potential impact would be less than significant.

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

Less than Significant Impact

Post-construction BMPs described in the project WQMP (Coast Engineering Designs, Inc. 2019) would be adopted to minimize runoff and potential pollutants from the project site, and in compliance with the MS4 Permit and the Santa Ana RWQCB Water Quality Control Plan (Basin Plan). For these reasons, the potential for the project to conflict with or obstruct implementation of a water quality control plan or sustainable groundwater management plan are less than significant.



4.11 Land Use and Planning

Would the project:	Potentially Significant Impact	Less than Significant Impact with Mitigation Incorporated	Less than Significant Impact	No Impact
a) Physically divide an established community?				X
b) Cause a significant environmental impact due to a conflict with any land use plan, policy, or regulation adopted for the purpose of avoiding or mitigating an environmental effect?				X
c) Would the proposed school conflict with any existing or proposed land uses, such that a potential health or safety risk to students would be created?				X

a) Would the project physically divide an established community?

No Impact

A significant impact would occur if the project was sufficiently large or configured in such a way as to create a physical barrier within an established community. The project is located in the Community Facilities Zoning District (City of Los Alamitos Zoning Map, n.d.) and designated as Community & Institutional land use on the City of Los Alamitos General Plan Land Use Map (City of Los Alamitos General Plan, 2015). The project would include construction of a multi-story building at the existing Los Alamitos High School campus. The project site is located in a highly urbanized area and, surrounded by single-family residential, commercial, and industrial land uses. (Google Earth Pro, 2018). The project would not alter the existing street grid surrounding the project site or surrounding area. Furthermore, no residential uses would be displaced by project-related activities and the physical arrangement of the surrounding community would not be modified or divided. Therefore, the project would not physically divide an established community and no impacts would occur.

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

No Impact

As mentioned in **Section 4.11 a)** above, the project is located within an area designated as Community & Institutional on the City's General Plan Land Use Map. The project includes construction of a multi-story building at the existing Los Alamitos High School campus and therefore, the project would not conflict with policies of the General Plan. The project does not propose land use changes, zone changes or changes to the City's General Plan. Additionally, as discussed in **Sections 4.1** through **4.19** of this document, the project would be consistent with applicable plans, policies or regulations that have been adopted by local, county, regional, state or federal agencies



with jurisdiction over this project for the purpose of avoiding or mitigating environmental effects. Therefore, no impacts would occur.

Furthermore, the California Supreme Court held that public school districts are a matter of statewide concern and that school districts, being local agencies of the state, are not subject to municipal construction regulations when engaged in such sovereign activities as the construction of school buildings.²⁸ It was subsequently held that school construction is regulated, and inspected at the state level through the Division of State Architect (DSA), the and the Field Act per the Ed Code.²⁹ The Los Alamitos Unified School District passed a resolution on October 10, 2013 that the District is exempt from local zoning ordinances.³⁰ For these reasons, the project would not conflict with existing state, regional, county, or local laws, policies, regulations, plans or guidelines. Therefore, no impact would occur.

c) Would the proposed school conflict with any existing or proposed land uses, such that a potential health or safety risk to students would be created?

No Impact

As discussed in **Sections 4.11 a) and b)**, the project is a permitted and compatible use in the Community & Institutional District designated for the project site by the City of Los Alamitos. The area to the north is zoned as R-1, Single Family Residential; east is zoned as R-1, Single Family Residential; west is zoned as R-1, Single Family Residential and C-F, Community Facilities; and south is zoned as P-M, Planned Light Industrial.

Existing development at the project site includes 11 permanent buildings, 20 relocatable (portable) buildings, an athletic pool, a soccer field, two softball diamonds, two baseball diamonds, a football stadium with a track and field, eight tennis courts, and six basketball courts. Three existing surface parking lots, located in the west, south, and east portions of the school campus, provide ample parking for students, faculty, staff, parents, and volunteers. The project proposes construction of a multi-story building and softball field lighting at the Los Alamitos High School campus. The proposed improvements would not conflict with school, residential, industrial, and commercial uses in the surrounding area. Areas surrounding the project site are already developed and currently no new developments are proposed in the vicinity of the project. Therefore, the project would not conflict with existing or proposed land uses, such that a potential health or safety risk to students would be created. No impacts would occur.

28 See Hall v. City of Taft (1956) 47 Cal.2d 177 [302 P.2d 574].

29 See Town of Atherton v. Superior Court (1958) 159 Cal.App.2d 417 [324 P.2d 328].

30 Based on email correspondence on July 30, 2018 between Margaret Partridge of UltraSystems and John Eclevia of the Los Alamitos Unified School District.



4.12 Mineral Resources

Would the project:	Potentially Significant Impact	Less than Significant Impact 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?				X
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?				X

- a) **Would the project result in the loss of availability of a known mineral resource that would be of value to the region and the residents of the state?**
- b) **Would the project result in the loss of availability of a locally important mineral resource recovery site delineated on a local general plan, specific plan, or other land use plan?**

No Impact

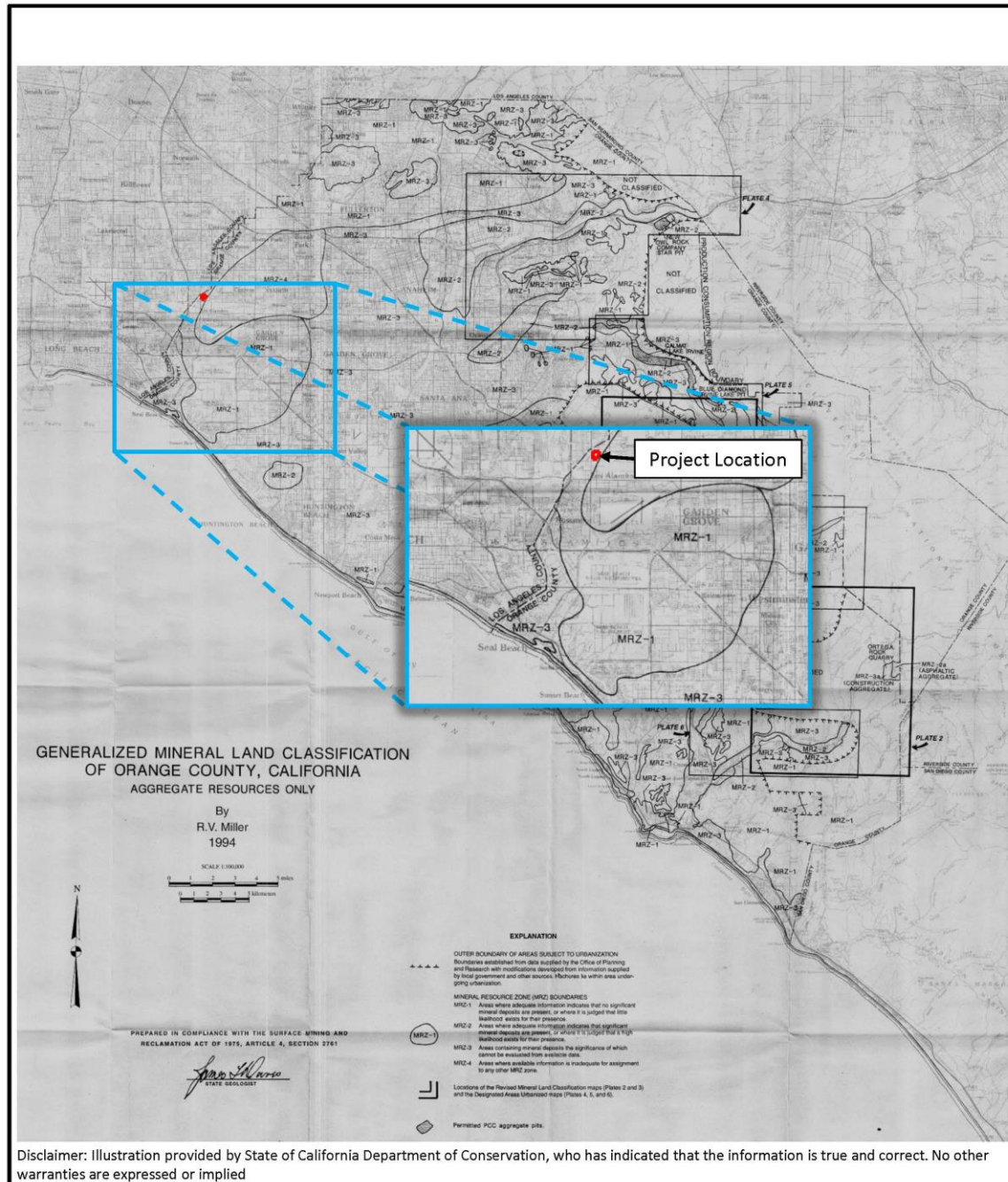
Assessment of mineral resources is based on the State of California's Mineral Land Classification/Designation Program established after the adoption of the Surface Mining and Reclamation Act (SMARA) in 1975. The primary objectives of SMARA are the assurance of adequate supplies of mineral resources important to California's economy and the reclamation of mined lands. These objectives are implemented through land use planning and regulatory programs administered by local government with the assistance of the Department of Conservation (DOC) and the California Geological Survey (CGS). Information on the location of important mineral deposits is developed by the CGS through a land use planning process referred to as mineral land classification.

As detailed on the SMARA Generalized Mineral Land Classification Map for Orange County, the project site is classified within SMARA-designated Mineral Resource Zone-1 (MRZ-1 defined as area of no significant mineral resource deposits; refer to **Figure 4.12-1**).³¹ Based on review of the DOC, Division of Oil, Gas and Thermal Resources mapping, (California Department of Conservation, 2017b) the project site is not located within a known oil and gas field or in the vicinity of oil and gas wells (refer to **Figure 4.12-2**).

The project site is located on the Los Alamitos High School campus and is therefore located on a previously developed site with uses that are characteristic of a high school campus. Implementation of project activities would modernize facilities on the project site and would not expand onto adjacent property. For these reasons, no impacts are anticipated to: (1) the availability of known mineral resources of value to the region or state residents, or (2) a locally important mineral resource recovery site delineated on a local general plan, specific plan, or other land use plan.

31 Note: MRZ-1 are areas of no significant mineral resource deposits, MRZ-2 are areas that contain identified mineral resources, MRZ-3 are areas of undetermined mineral resource significance, and MRZ-4 are areas of unknown resource potential.

**Figure 4.12-1
MINERAL RESOURCES**



**Los Alamitos High School
Multistory STEM Classroom Building**
Mineral Land Classification



Figure 4.12-2
OIL AND GAS FIELDS



Path: J:\Projects\6090_LosAl_MultiStory_Building\MXD\6090_LosAl_MS_Building_4.8_Oil_Gas_Wells_and_Fields_2019.02.11.mxd
Service Layer Credits: Sources: Esri, HERE, DeLorme, USGS, Intermap, INCREMENT P, NRCan, Esri Japan, METI, Esri China (Hong Kong), Esri Korea, Esri (Thailand), MapmyIndia, NGCC, OpenStreetMap contributors, and the GIS User Community; Cal Fire, 2007; CA Dept. of Conservation, July, 2018; UltraSystems Environmental, Inc., 2018

February 11, 2019

Scale 1:47,520



0 0.75 Miles

0 0.75 Kilometers

Legend



Los Alamitos High School Boundary



Oil and Gas Field Boundary



County Boundary

Oil and Gas Well Status:

● Buried Well

● Plugged & Abandoned

**Los Alamitos High School
Multistory STEM Classroom Building**

Oil and Gas
Wells and Fields



UltraSystems
CONSULTING AND DESIGN SERVICES



4.13 Noise

Would the project result in:	Potentially Significant Impact	Less than Significant Impact 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?		X		
b) Generation of excessive groundborne vibration or groundborne noise levels?			X	
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?				X
d) Is the proposed school site located adjacent to or near a major arterial roadway or freeway whose noise generation may adversely affect the education program?				X

4.13.1 Noise Fundamentals

Sound is a pressure wave transmitted through the air. It is described in terms of loudness or amplitude (measured in decibels), frequency or pitch (measured in hertz [Hz] or cycles per second), and duration (measured in seconds or minutes). The decibel (dB) scale is a logarithmic scale that describes the physical intensity of the pressure vibrations that make up any sound. The pitch of the sound is related to the frequency of the pressure vibration. Because the human ear is not equally sensitive to all frequencies, a special frequency-dependent rating scale is used to relate noise to human sensitivity. The A-weighted decibel scale (dBA) provides this compensation by discriminating against upper and lower frequencies in a manner approximating the sensitivity of the human ear. The scale is based on a reference pressure level of 20 micropascals (zero dBA). The scale ranges from zero (for the average least perceptible sound) to about 130 (for the average human pain level).

4.13.2 Noise Measurement Scales

Several rating scales have been developed to analyze adverse effects of community noise on people. Since environmental noise fluctuates over time, these scales consider that the effect of noise on people depends largely upon the total acoustical energy content of the noise, as well as the time of day when the noise occurs. Those that are applicable to this analysis are as follows:



- L_{eq} , the equivalent noise level, is an average of sound level over a defined time period (such as 1 minute, 15 minutes, 1 hour or 24 hours). Thus, the L_{eq} of a time-varying noise and that of a steady noise are the same if they deliver the same acoustic energy to the ear during exposure.
- L_{max} is the root mean square (RMS) maximum noise level during the measurement interval. This measurement is calculated by taking the RMS of all peak noise levels within the sampling interval. L_{max} is distinct from the peak noise level, which only includes the single highest measurement within a measurement interval.
- L_{90} is a noise level that is exceeded 90 percent of the time at a given location; it is often used as a measure of “background” noise.
- CNEL, the community noise equivalent level, is a 24-hour average L_{eq} with a 4.77 dBA “penalty” added to noise during the hours of 7:00 p.m. to 10:00 p.m., and a 10-dBA penalty added to noise during the hours of 10:00 p.m. to 7:00 a.m. to account for noise sensitivity in the evening and nighttime (Hendriks et al., 2013). The logarithmic effect of these additions is that a 60-dBA 24-hour L_{eq} would result in a calculation of 66.7 dBA CNEL.
- L_{dn} , the day-night average noise, is a 24-hour average L_{eq} with an additional 10-dBA “penalty” added to noise that occurs between 10 p.m. and 7 a.m. The L_{dn} metric yields values within 1 dBA of the CNEL metric. As a matter of practice, L_{dn} and CNEL values are considered to be equivalent and are treated as such in this assessment.

4.13.3 Existing Noise

The project site is located in a highly urbanized area and is surrounded by single and multifamily residential land uses. The predominant noise source is automobile and truck traffic on Cerritos Avenue, which is the front of the school to the south; along Norwalk Boulevard to the west, and on neighborhood streets to the east. Modeling performed for the environmental impact report for the 2015 General Plan estimated average noise levels along arterial segments currently range from 59 dBA to 78 dBA CNEL as calculated at 50 feet from the centerline of the road. Interstate routes would have noise levels that range from 80 dBA to 84 dBA CNEL at the edge of the roadway (City of Los Alamitos, 2014).

The draft EIR for the General Plan update estimated that traffic on Cerritos Avenue between Los Alamitos Boulevard and Bloomfield Street would expose the first row of houses on the north side of Cerritos Avenue to about 70 dBA CNEL; the distances corresponding to 65 and 60 dBA CNEL would be 128 and 277 feet, respectively (City of Los Alamitos, 2014, p. 5.7-11). Ambient sampling for the draft EIR confirmed that other noise sources, such as aircraft overflights, did not contribute significantly to the local noise environment (City of Los Alamitos, 2014, p. 5.7-17).

On Thursday, July 26, 2018, UltraSystems conducted ambient noise sampling at six locations in the general project area. These are shown in **Figure 4.13-1**. **Table 4.13-1** lists the measurement points, sampling locations, and measurement results. Details of the ambient sampling methods and results are provided in **Appendix J**.



Table 4.13-1
MEASURED AMBIENT NOISE LEVELS

Point	Sampling Location	Measurement Results (dBA)		
		15-Minute L_{eq}	L_{max}	L_{90}
1	370 Fenley Drive, in residential area north of the campus. One row of single-family houses between school and noise meter.	51.6	71.0	43.9
2	10293 Bloomfield Street (Los Alamitos Unified School District headquarters).	50.1	64.4	47.6
3	10221 Humbolt Street, in residential area east of campus. One row of single-family houses between school and noise meter.	51.4	66.7	44.8
4	10421 El Dorado Way in cul-de-sac located south of the campus. One row of single-family houses between school and noise meter.	49.0	58.2	45.6
5	3220 Lilly Avenue, in small park northeast of project site.	52.8	60.6	49.3
6	On project site, in parking lot immediately south of football stadium.	52.8	67.1	50.5

Source: Measurement by UltraSystems, July 26, 2018.

The samples were taken between 11:51 a.m. and 2:55 p.m. The 15-minute L_{eq} values varied little with location, and ranged from 49.0 to 52.8 dBA L_{eq} . A possible reason for the relative uniformity of the ambient noise levels is that most of the measurement sites were in the interiors of residential neighborhoods, shielded by houses from major streets and other large noise sources. The California Department of Transportation (Caltrans) estimates that the first row of housing next to a roadway provides 3 to 5 dBA of shielding, depending on how densely spaced are the houses (Hendriks et al., 2013), and that additional rows provide 1.5 dBA of shielding each. Shielding is discussed further in **Section 4.13.7**.



Figure 4.13-1
NOISE MONITORING LOCATIONS





4.13.4 Sensitive Land Uses

The City of Los Alamitos General Plan, Public Facilities and Safety Element explicitly defines 10 land uses that are especially sensitive to noise; residences, schools, childcare facilities, religious institutions, hospitals, libraries, parks and recreational facilities, health care facilities, convalescent centers, and retirement homes (City of Los Alamitos, 2015b, p. 25). The existing sensitive receptors that are nearest to the proposed project site are listed in **Table 4.13-2**. These receivers would be exposed to noise during project construction and operations.

Table 4.13-2
NEAREST EXISTING SENSITIVE RECEIVERS

Sensitive Land Use	Location with Respect to Project Features	Smallest Distance from Proposed Improvements (Feet)
Residential Neighborhoods	North, east, southeast and northwest of project	390
Lilly Park	3200 Lilly Avenue, Long Beach, CA 90808; northwest of project	1,560
Los Alamitos High School	Project site	60
Laurel Continuation High School	10291 Bloomfield Street, Los Alamitos, CA 90720	2,170
Reagan Street Surgery Center	10904 Reagan Street, Los Alamitos, CA 90720	2,300
Chabad Lubavitch of Cypress	10433 Los Alamitos Boulevard, Los Alamitos, CA 90720	450

Source: UltraSystems with Google Earth. 2018.

4.13.5 Regulatory Setting

The proposed project would be located in Los Alamitos, California. The primary regulatory documents that establish noise standards in the City of Los Alamitos are the General Plan, Public Facilities and Safety Element (City of Los Alamitos, 2015b) and the Municipal Code. The Public Facilities and Safety Element contains several noise minimization policies, of which only the following are potentially relevant to the project:

Policy 4.1 Land use compatibility. Approve development and require mitigation measures to ensure existing and future land use compatibility as shown in the City's Noise Ordinance, the Land Use and Noise Compatibility Matrix, the State Interior and Exterior Noise Standards, and the Airport Environs Land Use Plan for the JFTB.

Policy 4.3 Control sound at the source. Prioritize noise mitigation measures to control sound at the source over buffers, soundwalls, and other perimeter measures.

Table 4.13-3, upon which Policy 4.1 is partially based, shows the compatibility of various land uses with outdoor noise levels. Its original purpose is to guide the siting of various land uses, to ensure that people are not exposed to excessive noise. However, this type of table is often used as well to determine whether a new noise source will adversely affect pre-existing land uses.



Table 4.13-3
LAND USE AND NOISE COMPATIBILITY MATRIX

LAND USES	EXISTING NOISE LEVEL (dBA CNEL)						
Example Land Uses	<	55	60	65	70	75	80>
Amphitheater, concert hall, auditorium, meeting hall	B	B	C	C	D	D	D
Mobile home	A	A	B	C	C	D	D
Hospital, library, school, faith/religious uses	A	A	B	C	C	D	D
Hotel, motel, transient lodging	A	A	B	B	C	C	D
Single family, multifamily, faith/religious uses	A	A	B	B	C	D	D
Parks	A	A	A	B	C	D	D
Office building, research & development, professional office, city office building, and hotel	A	A	A	B	B	C	D
Amusement park, miniature golf, go-cart track, health club, equestrian center	A	A	A	B	B	D	D
Golf courses, nature centers, cemeteries, wildlife reserves, wildlife habitat	A	A	A	A	B	C	C
Commercial retail, bank, restaurant, movie theater	A	A	A	A	B	B	C
Automobile service station, auto dealer, manufacturing, warehousing, wholesale, utilities	A	A	A	A	B	B	B
Agriculture	A	A	A	A	A	A	A

Notes:

Community Noise Equivalent (CNEL). The energy-average of the A-weighted sound levels during a 24-hour period, with 5 dB added to the levels from 7:00 PM to 10:00 PM and 10 dB added from 10:00 PM to 7:00 AM.

Compatibility Zones. The following zones indicate the degree to which listed land uses are compatible with noise levels shown in the table.

Zone A. Clearly Compatible. Specified land use is satisfactory, based upon the assumption that any buildings involved are of normal conventional construction without any special noise insulation requirements.

Zone B. Normally Compatible. New construction or development should be undertaken only after detailed analysis of the noise reduction requirements are made and needed noise insulation features in the design are determined. Conventional construction, with closed windows and fresh air supply systems or air conditioning, will normally suffice.

Zone C. Normally incompatible. New construction or development should normally be discouraged. If new construction or development does proceed, a detailed analysis or noise reduction requirements must be made and needed noise insulation features must be included in the design.

Zone D. Clearly Incompatible. New construction or development should generally not be undertaken.

The Los Alamitos Municipal Code, Chapter 17.24 also has limits on noise from stationary sources. The allowable exposures at the receiver's property line depends upon land use. Noise limits are shown in **Table 4.13-4.**



The foregoing notwithstanding, the Los Alamitos Unified School District Board voted unanimously on October 8, 2013 to render local zoning ordinances inapplicable to future facilities projects at District properties in the City of Los Alamitos³² (Los Alamitos Unified School District, 2013).

Table 4.13-4
MAXIMUM ALLOWED EXTERIOR NOISE LEVELS FOR VARIOUS EXPOSURE PERIODS

dBA, for Periods Exceeding:						
Receiving Noise Zone	Time Period	>30 min.	15 min.	5 min.	1 min.	Anytime ^a
Noise Zone 1: All residential	7:00 a.m. to 10:00 p.m.	55	60	65	70	75
	10:00 p.m. to 7:00 a.m.	50	55	60	65	70
Noise Zone 2: All professional office and public institutional properties	Anytime	55	60	65	70	75
Noise Zone 3: All commercial properties with the exception of professional office properties	Anytime	60	65	70	75	80
Noise Zone 4: All industrial properties	Anytime	70	75	80	85	90

Source: City of Los Alamitos Municipal Code §§ 17.24.040, 17.24.050 and 17.24.060.

^a Or the maximum measured ambient level, for any period of time.

4.13.6 Thresholds of Significance for this Analysis

There are normally two criteria for judging noise impacts. First, noise levels generated by the proposed project must comply with all relevant federal, state and local standards and regulations. As noted in **Section 4.13.6**, however, the LAUSD Board has rendered the City's Zoning Ordinance (which includes noise limits) inapplicable to its projects in the city of Los Alamitos. Nevertheless, the project should not produce noise levels that are incompatible with adjacent noise sensitive land uses as defined in the City of Los Alamitos *General Plan, Public Facilities and Safety Element*.

The second measure of impact used in this analysis is the significant increase in noise levels above existing ambient noise levels as a result of the introduction of a new noise source. An increase in noise level due to a new noise source has a potential to adversely impact people.

Based on the applicable noise regulations stated above, the proposed project would have a significant noise impact if it would:

- Conflict with applicable noise restrictions or standards imposed by regulatory agencies.
- Cause the **permanent** ambient noise level at the property line of an affected land use to increase by 5 dBA CNEL or more.
- Contribute to a significant cumulative noise impact.

32 The municipal code sections cited in **Table 4.13-4** are part of Title 17 (Zoning).



4.13.7 Impact Analysis

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

Less than Significant Impact with Mitigation Incorporated

Construction

Noise impacts from construction activities are a function of the noise generated by the operation of construction equipment and onroad delivery and worker commuter vehicles, the location of equipment, and the timing and duration of the noise-generating activities. For the purpose of this analysis, it was estimated that the proposed project would be built in a single phase with five consecutive, non-overlapping sub-phases, which are listed in **Table 4.13-5**. Construction is anticipated to run from early January 2020 to late December 2021 or early January 2022.

The types and numbers of pieces of equipment to be deployed during each construction phase were determined as part of the air quality and greenhouse gas emissions analyses for this project, except for the aggregate ram, which is discussed below.³³ Equipment characteristics for the two phases are shown in **Table 4.13.5**.

Table 4.13-5
CONSTRUCTION EQUIPMENT CHARACTERISTICS

Construction Phase and Dates	Equipment Type	Horse-power	No. of Pieces	Utilization Factor	dBA @ 50 Feet
1 – Demolition January 2, 2020 to January 29, 2020	Concrete/Industrial Saws	81	1	0.2	90
	Forklifts	89	1	0.2	67
	Rubber-Tired Dozers	247	1	0.4	79
	Tractor/Loader/Backhoe	97	1	0.37	85
2 – Grading January 30, 2020 to March 3, 2020	Forklifts	89	1	0.2	67
	Graders	187	1	0.41	85
	Rubber-Tired Dozers	247	1	0.4	79
	Tractor/Loader/Backhoe	97	2	0.37	85
3 – Building Construction March 4, 2020 to August 24, 2021	Aggregate Ram	100	1	0.59	94 ^a
	Air Compressors	78	1	0.48	81
	Cranes	231	3	0.29	83
	Forklifts	89	1	0.2	67
	Generator Sets	84	1	0.5	73
	Tractor/Loader/Backhoe	97	3	0.37	85
	Welder	46	1	0.45	74

³³ See **Section 4.3** and **Section 4.8**.



Construction Phase and Dates	Equipment Type	Horse-power	No. of Pieces	Utilization Factor	dBA @ 50 Feet
4 – Paving August 25, 2021 to September 29, 2021	Cement and Mortar Mixers	9	1	0.4	85
	Forklifts	89	1	0.2	67
	Pavers	130	1	0.5	77
	Paving Equipment	132	1	0.5	85
	Rollers	80	2	0.2	82
	Tractor/Loader/Backhoe	97	1	0.37	85
5 – Architectural Coating September 29, 2021 to December 24, 2021	Air Compressors	78	1	0.48	81
	Forklifts	89	1	0.2	67

Source: USDOT, 2006 unless otherwise noted.

^a Reference distance = 34.45 feet; see text.

Information on noise generation by the rammed aggregate pier process was obtained from a measurement study by Fiegel and Farrell (2008). The RAM process is quieter than conventional pile driving, largely because the impact between hammer and pile occurs mainly above ground. In contrast, the impact between ram and aggregate occurs almost entirely underground, so that the soil forms a barrier to airborne sound propagation. The estimate of 94 dBA corresponds to a ramming elevation of between about 40 and 90 centimeters above ground, at a distance of 10.5 meters (34.45 feet) from the noise meter. This represents a maximum case, since the ram is above ground only at the very end of the process. For example, Fiegel and Farrell report an exposure of 86 dB when the ram is about 0.5 meter (1.6 feet) below ground surface.³⁴

Table 4.13-6 summarizes the maximum construction-related short-term noise exposures at five typical sensitive receivers on and surrounding the campus.³⁵ The receptor numbers correspond to the ambient sampling points shown on **Figure 4.13-1**. Receivers #1, #3 and #4 are inside residential neighborhoods north, east and south of the high school, respectively. Receiver #5 is Lilly Park, which is northwest of the high school, across Coyote Creek. Finally, Receiver #6 is on the campus, outdoors in a parking lot just southwest of the football stadium. All of the receiver points except #4, including the one on campus, have from three to six structures between them and the construction area. For receiver #4, there is also an approximately 10-foot-high sound wall between the residential neighborhood and the school. The wall would provide about 8 to 10 dBA additional attenuation. In **Table 4.13-6**, the exposure during construction represents a subtraction of 8 to 16 dB from the unobstructed exposure level.³⁶

Note that the rammed aggregate pier installation was evaluated as a “stand alone” activity, because the other equipment listed for the construction phase would not be operating then.

³⁴ Fiegel and Farrell, 2008| p. 9.

³⁵ Receptor point 2 (the Los Alamitos Unified School District headquarters) is considerably farther away than receptors for which exposures are less than significant, and was therefore not included in the calculations.

³⁶ See **Section 4.13.3**.



Table 4.13-6
ESTIMATED ONE-HOUR CONSTRUCTION NOISE EXPOSURES AT NEAREST SENSITIVE RECEIVERS

Point	Ambient dBA Leq	Construction dBA Leq			Ambient Plus Construction, dBA Leq	Increase dBA Leq
		Clear Path	Adjustment	Adjusted		
1	51.6	57.6	-11	46.6	52.8	1.2
3	51.4	58.5	-9.5	49.0	53.4	2.0
4	49.0	66.2	-16	50.2	52.7	3.7
5	52.8	58.6	-9.5	49.1	54.3	1.5
6	52.8	64.0	-8	56.0	57.7	4.9

As seen in **Table 4.13-6**, the construction equipment's contribution to the noise at the sensitive receivers would be slightly above or below the corresponding existing ambient levels. Given the logarithmic basis of the decibel unit, the result is an increase of 1.2 to 4.9 dBA Leq. Those exposures less than 3 dBA Leq would probably not be detected by most people, and none of the increases meets or exceeds the significance threshold of 5 dBA.

Although the significance criterion (5 dBA) is in terms of a permanent increase in CNEL, the result here still supports a less than significant impact because (a) the exposure is temporary and will disappear when construction is complete and (b) the CNEL value of the construction exposures would be even lower than 5 dBA because for most hours of the day construction would contribute nothing to the total exposure. Therefore, construction related noise impacts on offsite receivers would be less than significant.

Noise exposures to the nearest onsite sensitive receiver for which ambient data were available (#6) were also estimated. The maximum outdoor exposure would increase by 4.9 dBA, a less than significant amount. Exposures inside the classrooms would be even lower.

Construction-related noise levels would be short-term and would occur over about 18 months of school attendance. During this time, not all phases of construction would involve intensive use of heavy equipment. For project construction activities that would occur while school is in session, the school administration would be aware of the construction schedule and would have some flexibility to coordinate construction activities and classroom occupancy in the event that construction noise causes any disturbance. In an abundance of caution, implementation of **MM N-1** would ensure that noise impacts do not rise to a significant level.

Mitigation Measure

MM N-1: Los Alamitos High School administrative staff will obtain and regularly update a day-by-day construction schedule from the construction contractor. On days when intense construction will occur within 150 feet of an occupied classroom, the school will arrange to move the students in that class.



Level of Significance after Mitigation

With implementation of mitigation measure **N-1**, potential impacts from construction noise would be reduced to a less than significant level.

Operation

The project would not increase the number of students, faculty or staff at Los Alamitos High School. There would be no increase in onsite noise-generating activities or in offsite traffic. Therefore, operational noise impacts would be less than significant.

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

Less than Significant Impact

Vibration is sound radiated through the ground. Groundborne noise is the rumbling sound caused by the vibration of building interior surfaces. The ground motion caused by vibration is measured as peak particle velocity (PPV) in inches per second and is referenced as vibration decibels (VdB). Typical outdoor sources of perceptible groundborne vibration are construction equipment and traffic on rough roads.

The American National Standards Institute (ANSI, 1983) indicates that vibration levels in critical care areas, such as hospital surgical rooms and laboratories, should not exceed 0.2 inch per second of PPV. The Federal Transit Administration (FTA) also uses a PPV of 0.2 inch per second as a vibration damage threshold for fragile buildings and a PPV of 0.12 inch per second for extremely fragile historic buildings. The FTA criteria for infrequent groundborne vibration events (less than 30 events per day) that may cause annoyance are 80 VdB for residences and buildings where people normally sleep, and 83 VdB for institutional land uses with primarily daytime use (Federal Transit Administration, 2006).

Construction

The project would not include any blasting, drilling, or pile driving. Construction equipment such as loaded trucks, jack hammers, and small bulldozers may temporarily increase groundborne vibration or noise at the project site. Installation of rammed aggregate piers could also increase groundborne vibration.



The construction vibration analysis used formulas published by the Federal Transit Administration (FTA, 2018, p. 185). For a standard reference distance of 25 feet, peak particle velocity is found from:

$$PPV = PPV_{ref} \times (25/D)^{1.5}$$

where

$$\begin{aligned} PPV_{ref} &= \text{Reference source vibration at 25 feet} \\ D &= \text{Distance from source to receiver} \end{aligned}$$

The vibration level (VdB) for a standard reference distance of 25 feet is found from:

$$VdB = L_{vref} - 30 \log(D/25)$$

where

$$\begin{aligned} L_{vref} &= \text{Reference source vibration level at 25 feet} \\ D &= \text{Distance from source to receiver} \end{aligned}$$

The FTA has published standard vibration levels for construction equipment operations, at a distance of 25 feet (Federal Transit Administration, 2006, p. 12-12). The smallest geometric mean distance from construction activity to a residential receiver would be about 650 feet. The calculated vibration levels expressed in VdB and PPV for selected types of construction equipment at distances of 25 and 650 feet are listed in **Table 4.13-7**.

As shown in **Table 4.13-7**, the vibration level of construction equipment at the nearest sensitive receiver (650 feet) is at most 0.0016 inch per second, which is less than the FTA damage threshold of 0.12 inch per second PPV for fragile historic buildings, and 52 VdB, which is less than the FTA threshold for human annoyance of 80 VdB. Vibration impacts would therefore be less than significant.

The aforementioned study by Fiegel and Farrell (2008) also measured vibration from RAP installation.³⁷ The PPV at 25 feet was about 0.12 inch per second, which is lower than that from the vibratory rollers shown in **Table 4.13-7**. Therefore, vibration from RAP installations would also be less than significant.

Table 4.13-7
VIBRATION LEVELS OF CONSTRUCTION EQUIPMENT

Equipment	PPV at 25 feet (in/sec)	Vibration Decibels at 25 feet (VdB)	PPV at 650 feet (in/sec)	Vibration Decibels at 650 feet (VdB)
Loaded Truck	0.076	86	0.0006	44
Jackhammer	0.035	79	0.0003	37
Small Bulldozer	0.003	58	0.00002	16
Vibratory Roller	0.21	94	0.0016	52

³⁷ Fiegel and Farrell, 2008, p. 6.



Operations

Operation of the proposed project would not involve significant sources of groundborne vibration or groundborne noise. Thus, operation of the proposed project would result in a less than significant impact.

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

No Impact

The nearest airport is Long Beach Airport, whose nearest runway is approximately 3.7 miles west of the project site. In addition, the project site is outside the boundaries of the Long Beach Airport portion of the Los Angeles County Airport Land Use Plan (County of Los Angeles, 2004). Therefore, the project would not expose people residing or working in the project area to excessive noise levels and no impact would occur.

- d) **Is the proposed school site located adjacent to or near a major arterial roadway or freeway whose noise generation may adversely affect the education program?**

No Impact

The nearest freeway, San Gabriel River Freeway Interstate 605, is approximately 0.6 mile west of the project site. Noise generated by freeway traffic would be attenuated so much by distance and by intervening structures that it would not adversely affect operations at the school. The largest roadway in the vicinity of the project site is Cerritos Avenue, which is adjacent to the south boundary of the project site. Cerritos Avenue is classified as a “Primary” road in the General Plan and has an average daily trip rate of 29,932 vehicles per day between Los Alamitos Boulevard and Bloomfield Street (City of Los Alamitos, 2015). According to California Education Code § 17213(9), a major arterial roadway has traffic in excess of 50,000 vehicles per day in rural areas and 100,000 vehicles per day in urban areas. Therefore, none of the nearby roadways would be classified as a major arterial roadway. Therefore, no impact would occur.



4.14 Population and Housing

Would the project:	Potentially Significant Impact	Less than Significant Impact 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)?				X
b) Displace substantial numbers of existing people or housing, necessitating the construction of replacement housing elsewhere?				X

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

No Impact

The proposed classrooms are intended to replace some of the existing portable classrooms. Outside of the normal increases and decreases due to normal grade fluctuations, the project is not intended to increase student enrollment. The project does not include a housing component or otherwise support an increase in the resident population of the City. Existing infrastructure is in place at the high school and no extension of roads is proposed. The project would not directly or indirectly induce population growth in the project area because it involves improvements to an existing high school campus. Therefore, no impact would occur.

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

No Impact

The project is located within a high school campus and no housing or residences are located onsite. The project would not result in the loss of residences nor would it displace people. Therefore, no impact would occur.



4.15 Public Services

Would the project:	Potentially Significant Impact	Less than Significant Impact with Mitigation Incorporated	Less than Significant Impact	No Impact
Would the project result in substantial adverse physical impacts associated with the provision of new or physically altered governmental facilities, the need for new or physically altered governmental facilities, 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) Fire protection?			X	
b) Police protection?				X
c) Schools?				X
d) Parks?				X
e) Other public facilities?				X
f) Does the site promote the joint use of parks, libraries, museums, and other public services?				X

a) Fire protection?

Less Than Significant Impact

The City of Los Alamitos contracts with the Orange County Fire Authority (OCFA) to provide fire, emergency medical, and rescue services citywide (City of Los Alamitos Fire, 2018). The OCFA operates 71 fire stations throughout Orange County (OCFA, 2018). The City of Los Alamitos hosts Fire Station No. 2. The fire stations nearest to the project site include Station No. 2, approximately 0.6 miles south and Station No. 17, approximately 1.4 miles east of the project site. Operations Division 1 services the cities of Los Alamitos, Seal Beach, and Westminster. This division includes seven fire stations.

The OCFA is divided into seven departments including Business Services, Communication & Public Affairs, Community Risk Reduction, Human Resources, Operations, Organizational Planning, and Support Services (OCFA, 2016a). Each department has specific responsibilities. Business Services provides budget, payroll, accounting, and administrative support; Communications & Public Affairs is responsible for internal and external communications and acts as liaison to the OCFA Board of Directors and member cities; Community Risk Reduction adopts and enforces codes and ordinances relative to fire and life safety issues, reviews plans, and conducts inspections; Human Resources is responsible for attracting and maintaining personnel; Operations is comprised of seven divisions and maintains 71 fire stations; Organizational Planning is responsible for emergency planning & coordination, organization training & development, and strategic services sections; and Support Services is responsible for facilities maintenance, automotive and fleet maintenance, and acquisition.

The project would comply with applicable sections of the 2016 California Fire Code, adopted by reference by the City of Los Alamitos (OCFA, 2016b). Construction plans would be subject to approval



by the Division of the State Architect³⁸ and the OCFA Planning & Development Services department. With the implementation of required measures for fire safety and prevention, the project would have a less than significant impact related to fire protection services.

b) Police protection?

No Impact

The Los Alamitos Police Department (LAPD) is responsible for providing law enforcement services to the city. LAPD includes over 25 sworn officers and is divided into three sections including: the Chief's Office; the Operations Division; and the Support Services Division (City of Los Alamitos Police Department, 2018). The Operations Division is responsible for patrol and activities related to field enforcement including traffic enforcement, training, the Reserve Officer Program, and emergency services & disaster preparation. The Support Services Division is responsible for non-patrol function including the Detective Bureau, the Records Bureau, property & evidence, facilities administration, and community outreach. The LAPD, located at 3201 Katella Avenue, is approximately one-half mile from the project site.

The project includes construction of a multi-story building within an existing high school campus. The project would not adversely affect demand for police protection services as no additional calls for service are anticipated to be generated as a result of project implementation. The project would not adversely affect existing service capacity of the LAPD and no impact would occur.

c) Schools?

No Impact

The project includes construction of a multistory building within a high school campus. As discussed in **Section 4.14 of this document**, the project would not directly or indirectly induce population growth in the project area. The proposed classrooms are intended to replace some of the existing portable classrooms. Outside of the normal increases and decreases due to normal grade fluctuations, the project is not intended to increase student enrollment. Therefore, no impact would occur.

d) Parks?

No Impact

The City of Los Alamitos' parks system includes nine parks (City of Los Alamitos Recreation and Community Services, 2018). Park amenities include play areas, barbeques and picnic tables, softball diamonds, soccer fields, volley ball courts, basketball courts, and multi-use fields. The project site is located in close proximity to two parks: Soroptimist Park, located approximately 0.40 mile to the south and Stansbury Park, located approximately 0.16 mile to the north (Google Earth Pro, 2018).

Demand for parks typically increases with housing or population growth in an area. The proposed classrooms are intended to replace some of the existing portable classrooms. Outside of the normal increases and decreases due to normal grade fluctuations, the project is not intended to increase student enrollment. Therefore, no impacts on parks are anticipated.

³⁸ This division is an affiliate of State of California's Department of General Services.



e) Other public facilities?

No Impact

The project would not directly or indirectly induce population growth in the project area. Therefore, no impacts on other public facilities such as libraries and medical facilities would occur.

f) Does the site promote the joint use of parks, libraries, museums, and other public services?

No Impact

The District has Joint Use Agreements with the City of Seal Beach for use of McGaugh Elementary School's pool, tennis courts, and gymnasium and with the City of Los Alamitos for use of Oak Middle School's basketball courts, bike-walk path to Coyote Creek, restrooms, and fields and McAuliffe Middle School's fields. The District also has a Master Agreement for use of shared sites (LAUSD Operations Steering Committee, 2015).

The Civic Center Act, as defined in the State of California Education Code §§ 38130-38139, describes uses of school facilities, including all buildings and grounds for public purposes, and the fees that may be assessed. Section 38131(b)(1) states:

“(b) The governing board of any school district may grant the use of school facilities or grounds as a civic center upon the terms and conditions the board deems proper, subject to the limitations, requirements, and restrictions set forth in this article, for any of the following purposes: (1) Public, literary, scientific, recreational, educational, or public agency meetings ... (6) Supervised recreational activities including, but not limited to, sports league activities for youths that are arranged for and supervised by entities, including religious organizations or churches, and in which youths may participate regardless of religious belief or denomination” (California Education Code, 1996).

The Los Alamitos High School would continue to be available for use per Civic Center Act requirements³⁹. Therefore, the project does promote the joint use of athletic facilities located onsite, and no impacts would occur.

39 Per email correspondence between Margaret Partridge of UltraSystems and John Eclevia of Los Alamitos Unified School District on July 30, 2018.



4.16 Recreation

Would the project:	Potentially Significant Impact	Less than Significant Impact with Mitigation Incorporated	Less than Significant Impact	No Impact
a) Would the project increase the use of existing neighborhood and regional parks or other recreational facilities such that substantial physical deterioration of the facility would occur or be accelerated?				X
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?				X

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

No Impact

The increase in use of recreational facilities is generally spurred by population growth. As discussed in **Section 4.14** of this document, the proposed classrooms are intended to replace some of the existing portable classrooms. Outside of the normal increases and decreases due to normal grade fluctuations, the project is not intended to increase student enrollment. Additionally, the project proposes a new multi-story classroom building. Therefore, there would be no impact on existing neighborhood or regional parks and facilities.

- 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?**

No Impact

The proposed project includes construction of a new multistory classroom building. The project does not include construction of any new recreational facilities and would not require the construction or expansion of recreational facilities. Therefore, no impacts would occur.



4.17 Transportation

Would the project:	Potentially Significant Impact	Less than Significant Impact 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?			X	
b) Conflict or be inconsistent with CEQA Guidelines section 15064.3, subdivision (b)?			X	
c) Substantially increase hazards due to a geometric design feature (e.g., sharp curves or dangerous intersections) or incompatible uses (e.g., farm equipment)?				X
d) Result in inadequate emergency access?				X
e) Is the proposed school site within 1,500 feet of a railroad track easement? [CCR, Title 5 § 14010(d)]				X
f) Are traffic and pedestrian hazards mitigated per Caltrans' School Area Pedestrian Safety manual?				X
g) Is the site easily accessible from arterials and is the minimum peripheral visibility maintained for driveways per Caltrans' Highway Design Manual?				X

4.17.1 Background

The following information, except where otherwise noted, is from the Mobility and Circulation Element of the City of Los Alamitos General Plan (City of Los Alamitos, 2015c).

4.17.1.1 Local Streets

Los Alamitos High School is bounded by two major roads: Los Alamitos Boulevard,⁴⁰ immediately to the west, and Cerritos Avenue, immediately to the south of the southwestern portion of the high school campus. Another major road in the vicinity is Bloomfield Street, about 980 feet east of the school boundary.

Los Alamitos Boulevard is a north-south roadway that extends into Los Angeles County as Norwalk Boulevard and to the Pacific Ocean as Seal Beach Boulevard, where it is a direct connector to the I-405 freeway. Street parking is permitted along most of Los Alamitos

⁴⁰ North of Cerritos Avenue, the name of this street is Norwalk Boulevard.



Boulevard in the vicinity of the school. The posted speed limit on Los Alamitos Boulevard is 40 miles per hour. Los Alamitos Boulevard is a designated truck route.

Cerritos Avenue is an east–west roadway that extends from the I-605 freeway to the west as Spring Street and terminates in Anaheim at Walnut Street on the western boundary of Disneyland Park. Street parking is not permitted along most of Cerritos Avenue, and the posted speed limit is 35 miles per hour. Cerritos Avenue is a designated truck route through the City of Los Alamitos.

Bloomfield Street is a north–south roadway that extends from Whittier Boulevard to the north and Farquhar Avenue to the south. It is a direct connector to the I-5 and SR-91 freeways to the north. Street parking is permitted along portions of Bloomfield Street, and the posted speed limit varies between 25 and 40 mph. Bloomfield Street is a designated truck route as far north as Cerritos Avenue.

Ball Road is an east–west roadway that extends into Long Beach as Wardlow Road to the west and through Cypress to the east until it terminates in Orange as Taft Avenue. Street parking is not permitted on Ball Road, and the posted speed limit is 40 mph. Ball Road is a designated truck route through the City of Los Alamitos.

Traffic signals control the following intersections near the school:

- Los Alamitos Boulevard and Cerritos Avenue.
- Cerritos Avenue and the entrance to Los Alamitos High School.
- Cerritos Avenue and Humbolt Street.
- Cerritos Avenue and Bloomfield Street.
- Bloomfield Street and Carbon Canyon Creek Channel.
- Bloomfield Street and Ball Road.
- Ball Road and Kaylor Avenue.

In addition, the aforementioned major streets have ten side street stop signs within the project area.

The most commonly used indicator of quality of traffic is the level of service (LOS), which is based upon flow volumes and the ratio between traffic volume and a street's capacity (V/C ratio). **Table 4.17-1** describes the traffic flow corresponding to each LOS (A through F). In 2013, while preparing its 2015 General Plan revisions, the City of Los Alamitos compiled traffic data at a large number of intersections and road segments. **Table 4.17-2** shows the AM and PM peak hour LOS at intersections in the project area. **Table 4.17-3** gives similar information for road segments near the school. All of the intersections had a LOS of at least D, which is considered by the City to be "acceptable."



Table 4.17-1
LEVEL OF SERVICE DESCRIPTIONS FOR SIGNALIZED INTERSECTIONS

Level of Service	Traffic Flow Description
A	Low volumes; high speeds; speed not restricted by other vehicles; all signal cycles clear with no vehicles waiting through more than one signal cycle.
B	Operating speeds beginning to be affected by other traffic; between one and ten percent of the signal cycles have one or more vehicles which wait through more than one cycle during peak traffic periods.
C	Operating speeds and maneuverability closely controlled by other traffic; between 11 and 30 percent of the signal cycles have one or more vehicles which wait through more than one cycle during peak traffic periods; recommended ideal design standard.
D	Tolerable operating speeds; 31 to 70 percent of the signal cycles have one or more vehicles which wait through more than one cycle during peak traffic periods; often used as design standard in urban areas.
E	Capacity; the maximum traffic volume an intersection can accommodate; restricted speeds; 71 to 100 percent of the signal cycles have one or more vehicles which wait through more than one cycle during peak traffic periods.
F	Long queues of traffic; unstable flow; stoppages of long duration; traffic volumes and traffic speed can drop to zero; traffic volumes will be less than the volume which occurs at Level of Service E.

Table 4.17-2
LEVEL OF SERVICE AT SIGNALIZED INTERSECTIONS NEAR LOS ALAMITOS HIGH SCHOOL

Intersection	AM Peak		PM Peak	
	V/C Ratio	LOS	V/C Ratio	LOS
Los Alamitos Boulevard and Cerritos Avenue	0.770	C	0.834	D
Bloomfield Street and Ball Road	0.690	B	0.660	B
Bloomfield Street and Cerritos Avenue	0.815	D	0.727	C

Table 4.17-3
ROADWAY SEGMENT VOLUMES AND LOS NEAR LOS ALAMITOS HIGH SCHOOL

Street Name and Segment	Classification	Traffic Volume (AADT) ^a	V/C	LOS
Los Alamitos Boulevard				
Between north City limits and Cerritos Avenue	Major	24,008	0.67	C or better
Bloomfield Street				
Between Cerritos Avenue and Ball Road	Secondary	12,471	0.52	C or better
Cerritos Avenue				
Between Los Alamitos Boulevard and Bloomfield Street	Primary	29,932	0.83	D

^aAADT = Annual average daily traffic.



4.17.1.2 Pedestrian and Bicycle Traffic

According to the General Plan, the City provides “adequate infrastructure for bicycles and pedestrians.” All of the signalized intersections identified in **Section 4.17.1** have crosswalks, and there is a crosswalk on Cerritos Avenue between the school and Humbolt Street.

Bloomfield Street and Ball Road each have Class II bikeways. According to Caltrans, Class II bikeways are bike lanes established along streets and are defined by pavement striping and signage to delineate a portion of a roadway for bicycle travel (Caltrans, 2017). Cerritos Avenue between Los Alamitos Boulevard and Bloomfield Street is a Class III bike route. A Class III bike route is a roadway that may be used by both motor vehicles and bicycles; it differs from regular roadways in that it is prominently signed as a bike route (Caltrans, 2017).

4.17.1.3 Public Transportation

The project area is served by the Orange County Transportation Authority (OCTA) and Long Beach Transit (LBT). Routes with stops at the school or within reasonable walking distance include (City of Los Alamitos, 2015c):

OCTA Route 42.42A (Seal Beach to Orange) generally runs east-west, providing service from Seal Beach to Orange. The major streets of service are Los Alamitos Boulevard, Lincoln Avenue and Tustin Street. Typical headways (the waiting time between buses at a stop) are 20 minutes. This route has a bus stop at Los Alamitos Boulevard and Cerritos Avenue.

OCTA Route 46 (Los Alamitos to Orange) generally runs east-west, providing service from Los Alamitos to Orange. The major streets of service are Ball Road and Tustin Street. Within Los Alamitos, Route 46 only provides service in the eastbound direction. Typical headways are 30 minutes. This route has a bus stop at Los Alamitos Boulevard and Cerritos Avenue. Other stops in the general project area are at Ball Road and Kaylor Avenue, and at Ball Road and Bloomfield Street.

LBT Route 104 (Spring Street) generally runs east-west. It has a stop at Los Alamitos Boulevard and Cerritos Avenue (Long Beach Transit, 2018).

4.17.2 Impact Analysis

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

Less than Significant Impact

The City of Los Alamitos General Plan, Mobility and Circulation Element contains a forecast of traffic conditions assuming that growth described in other parts of the General Plan is realized. The forecast also assumed that Los Alamitos Boulevard would continue to have the current four active lanes and all turning movements, avoiding an increase to six active lanes. The great majority of intersections and roadway segments would continue to operate at an acceptable LOS (D or better). However, there would be an unacceptable decline in LOS at the following locations in the general area of Los Alamitos High School:



- **Bloomfield Street and Cerritos Avenue** – LOS F in AM peak hour and LOS E in PM peak hour.
- **Cerritos Avenue (segment) between I-605 freeway and Los Alamitos Boulevard** – LOS E.

The degradation of performance is due primarily to growth in regional traffic (City of Los Alamitos, 2015c, p. 26). Policy 1.4 of the General Plan exempts these two locations from the Level D standard (Ibid., p. 43).

The only major change to roadway infrastructure discussed in the General Plan is the redesign of Los Alamitos Boulevard north of Katella Avenue (City of Los Alamitos, 2015c, p. 30). The City would narrow the roadway and enlarge the parkway and sidewalk areas along Los Alamitos Boulevard. The redesign would maintain four through-lanes and turning movements at intersections while converting the remaining surplus space into an expanded parkway. Curb extensions would be installed at intersections to reduce crossing distance. On-street parking would be restricted north of Sausalito Street until after 9:00 a.m. to provide sufficient queuing space for vehicles turning right onto Cerritos Avenue to access the high school in the morning. The speed limit would be reduced from 35 to 30 miles per hour.

The General Plan also proposes a bridge at or near the southwest corner of Los Alamitos High School to make a safer crossing for students and to relieve traffic congestion at the intersection of Los Alamitos Boulevard and Cerritos Avenue (City of Los Alamitos, 2018c, Figure 8).

Construction

Construction is anticipated to run from early January 2020 to early January 2022. During the construction period, the proposed project would generate temporary construction-related truck and automobile traffic. Traffic during the construction phase would include construction workers traveling to and from the project site, trucks hauling construction materials to the site and transporting material away from the site.

As presented in the air quality analysis (see **Appendix B**), construction is estimated to generate a maximum of about 39 worker trips per day, mainly during peak hours. Maximum truck trips would occur during demolition, and would average about 80 per day. These traffic volumes are a tiny fraction of the volumes shown in **Table 4.17-3**. As the truck trips would be spread throughout the day and would generally occur during non-peak hours, the level of construction-related traffic would not result in significant impact on the study area street network.

Operation

Motor Vehicle Traffic

The project would be constructed entirely within the existing Los Alamitos High School campus, and would not increase the number of students at Los Alamitos High School; nor would it add additional uses. Therefore, the project would not generate a substantial number of new (permanent) trips (traffic) in the study area during the operation phase, and less than significant impacts would occur.



Non-motorized Traffic and Mass Transit

The project is not anticipated to generate an increase in non-motorized traffic. West Cerritos Avenue and Los Alamitos Boulevard have sidewalks along both sides of the street. All project activities including construction would be contained within the existing boundary of the Los Alamitos High School campus, and the project would not interfere with any adjacent sidewalks. Therefore, the project would have no impact on non-motorized traffic circulation.

Operation of the proposed project would not affect the existing public transit routes or bus facilities, and would not conflict with any plans or policies relative to these travel modes. Therefore, the project would not conflict with existing policies, plans, or programs supporting alternative transportation, and no impact would occur.

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

Less than Significant Impact

The project is not within 0.5 mile of a major transit stop or along an existing high-quality transit corridor,⁴¹ so impacts cannot be presumed to be less than significant under CEQA Guidelines §15064.3(b)(1). The project will not increase the student, faculty or staff population, so vehicle miles traveled would not increase. As discussed in **Section 4.17.3**, public transit in the project area is readily available. Therefore, the project would not be in conflict or be inconsistent with CEQA Guideline § 15064.3(b) and impacts would be less than significant.⁴²

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

No Impact

The project site is located within an existing school campus. The proposed activities include demolition of existing onsite structures, and construction of a new academic building in their place. The project would not alter or impact roads or sight lines in the project area, and all construction activities will be contained within the project site. Therefore, the project would not create any hazardous design features or incompatible uses, and no impact would occur.

d) Would the project result in inadequate emergency access?

No Impact

The project would not result in inadequate emergency access. The project site would be accessed through the existing surface parking lot located west of the school site. The project would comply with applicable Division of State Architect (DSA) Fire, Life and Safety regulations; Orange County Fire Authority (OCFA) regulations; and the California Building Codes. Prior to the DSA approval of the project site plans, the OCFA would review the proposed site plans, including the location of all structures, fences, drive gates, or other features that may affect emergency access. Fire lanes would

41 "Major transit stop" and "high quality transit corridor" are defined in CEQA Guidelines, Appendix M.

42 CEQA Guidelines § 15064.3(b)(3) allows a qualitative approach such as this.



be provided as required for adequate emergency access. DSA's and OCFA's review process and compliance with applicable regulations and standards would ensure that adequate emergency access would be provided at the project site at all times. Therefore, emergency responders would have adequate access in case of an emergency, and no impact would occur.

e) Is the proposed school site within 1,500 feet of a railroad track easement?

No Impact

The nearest railroad track easement is located approximately 2.1 miles northeast of the project site (Google Earth Pro, 2018). As the project site is not located in the vicinity (i.e., within 1,500 feet) of a railroad track easement, there would be no impacts associated with safety hazards as a result of its location near railroad tracks.

f) Are traffic and pedestrian hazards mitigated per Caltrans' School Area Pedestrian Safety manual?

No Impact

The project will not cause an increase in student, faculty or staff at Los Alamitos High School, nor would it create new traffic or pedestrian hazards to anyone. There will be no changes to existing streets and access driveways, and therefore no impacts on traffic and/or pedestrian safety.

g) Is the site easily accessible from arterials and is the minimum peripheral visibility maintained for driveways per Caltrans' Highway Design Manual?

No Impact

The proposed site is located on Cerritos Avenue east of Norwalk Boulevard. Direct access to the project site would be provided by Norwalk Boulevard, located along the western boundary of the site. The existing traffic controls and geometrics for street intersections in the study area would not be changed as a result of the proposed project. The project includes replacement of existing temporary structures with a new building, located on Los Alamitos High School campus, and does not propose changes to existing access driveways and parking aisles within or near the campus. As no changes to existing streets and access driveways are proposed, no impacts related to access and peripheral visibility would occur.



4.18 Tribal Cultural Resources

Would the Project:	Potentially Significant Impact	Less than Significant Impact with Mitigation Incorporated	Less than Significant Impact	No Impact
a) Cause a substantial adverse change in the significance of a tribal cultural resource that is 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 § 5020.1(k)?			X	
b) Cause a substantial adverse change in the significance of a tribal cultural resource that is determined to be a significant resource to a California Native American tribe pursuant to the criteria set forth in subdivision (c) of Public Resource Code § 5024.1(c)?			X	

- a) **Would the project cause a substantial adverse change in the significance of a tribal cultural resource that is 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 § 5020.1(k)?**

and

- b) **Would the project cause a substantial adverse change in the significance of a tribal cultural resource that is determined to be a significant resource to a California Native American tribe pursuant to the criteria set forth in subdivision (c) of Public Resource Code § 5024.1(c)?**

Less Than Significant Impact

A cultural resources analysis for the Los Alamitos High School Project site was prepared that included a records and literature search at the CHRIS's South Central Coastal Information Center, a request to the NAHC to conduct a search of their SLF for potential traditional cultural properties, as well as to provide a list of local Native American tribes and tribal representatives to contact, and the results of a field pedestrian survey (refer to **Appendix C**, Cultural Resources Letter Report). The historical background investigation found that the campus and surrounding area has been a fully developed urban landscape since the early-1970s. There was no finding of historic or prehistoric cultural resources within the project site. However, unknown or unrecorded resources may potentially be revealed during precise grading activities. This may occur if ground disturbance activities penetrate deeper than previous work performed.

Using the list of local tribes suggested by the NAHC to be contacted for AB 52 consultation list, acting as the Lead Agency the District sent letters to seven tribes asking if they wished to be contacted by



❖ SECTION 4.18 - TRIBAL CULTURAL RESOURCES ❖

the District as CEQA-related projects were planned. For the proposed project, those tribes that the District receives a request for consultation from will be contacted per Public Resources Code § 21074, and the AB 52 consultation process will begin.

In a combined letter with the initial AB 52 participation query described above, the District also notified these tribes of the Los Alamitos High School Multistory STEM Building Project, asking if they wished to participate in AB 52 consultation concerning the Project. The letters were sent on May 3, 2019 by certified mail to the Gabrieleno Band of Mission Indians – Kizh Nation (Gabrieleno-Kizh Nation), the Gabrieleno/Tongva San Gabriel Band of Mission Indians, the Juaneño Band of Mission Indians Acjachemen Nation to Chairperson Matias Belardes and Ms. Joyce Perry, the Gabrielino/Tongva Nation, the Juaneño Band of Mission Indians Acjachemen Nation to Chairwoman Teresa Romero, the Juaneño Band of Mission Indians Chairperson Sonia Johnston, and to the Gabrielino-Tongva Tribe to Chairperson Linda Candelaria and to Councilmember Charles Alvarez. The tribes are provided up to 30 days in which to respond to this notification. For the proposed project, those tribes that the District received a request for consultation from were contacted per Public Resources Code § 21074, and the AB 52 consultation process was begun (Mayra Gonzalez, personal communication; May 13, 2019).

The District received a reply dated May 7, 2019 from Chairman Andrew Salas of the Gabrieleno Band of Mission Indians – Kizh Nation, requesting consultation. District staff conducted a telephone meeting with Chairperson Salas on July 24, 2019 to discuss the Band's concerns and learn of the history of the Band and the land around the school. Salas requested that there be Native American monitoring during ground disturbing work at the construction site which the District agreed to, and on September 13, 2019, the District requested that the Band and NDNA (a local Native American cultural resources firm) provide a proposal to conduct the monitoring. The remaining six tribes did not respond to the District's letter of May 3, 2019 and have not requested consultation. (Mayra Gonzalez, personal communication; September 19, 2019.)

The project site has been previously disturbed (refer to **Section 4.5** and **Appendix C**). Accordingly, it is unlikely that any tribal resources exist on the site. Due to the developed nature of the project site, the school, and the surrounding area, the absence of nearby recorded cultural resource sites, and the absence of traditional sites recorded in the NAHC's SLF, it is unlikely that significant tribal cultural resources would be encountered during construction of the proposed project. However, any tribal cultural resources accidentally discovered during construction would be evaluated and protected in compliance with State CEQA Guidelines § 15064.5(f). Grading activities associated with development of the project would cause new subsurface disturbance that could result in the unanticipated discovery of unique archeological resources. The Gabrieleno – Kizh Nation requested tribal monitoring which the District agreed to.

Mitigation Measure

MM TCR-1: If historical or unique archaeological resources are discovered during construction activities, the contractor shall halt construction activities in the immediate area and notify the Los Alamitos Unified School District. The on-call Native American monitor shall be notified and afforded the necessary time to recover, analyze, and curate the find(s). The monitor shall recommend the extent of monitoring necessary to ensure the protection of any other resources that may be in the area and afforded the necessary time and funds to recover, analyze, and curate the find(s). Construction activities may continue on other parts of the project site while evaluation and treatment of resources takes place. Native American monitors will be required to



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complete and submit daily monitoring logs to the project proponent's lead archaeologist while at the project site.

Level of Significance after Mitigation

With implementation of mitigation measure **TCR-1**, as well as **CUL-1** through **CUL-3** described in **Section 4.5** above, potential impacts on archaeological resources would be reduced to a less than significant level.



4.19 Utilities and Service Systems

Would the project:	Potentially Significant Impact	Less than Significant Impact 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?			X	
b) Have sufficient water supplies available to serve the project and reasonably foreseeable future development during normal, dry and multiple dry years?			X	
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?			X	
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?			X	
e) Comply with federal, state, and local management and reduction statutes and regulations related to solid waste?				X

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

Less Than Significant Impact

Water

Golden State Water Company (GSWC) provides water service in the City of Los Alamitos (City of Los Alamitos Utilities, 2019). The proposed classrooms are intended to replace some of the existing portable classrooms. Outside of the normal increases and decreases due to normal grade fluctuations, the project is not intended to increase student enrollment. The proposed project would not result in additional staff members onsite. The project would not result in an increase in student capacity or



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associated increase in the generation of wastewater. The proposed project would not require the construction of new water facilities. Therefore, less than significant impacts would occur.

Wastewater Treatment

The Rossmoor/Los Alamitos Sewer District (RLASD) maintains all common sewer lines (i.e., the main lines that run down the center of the street). The RLASD is responsible for the cleaning, inspection, repair, and maintenance of the main sewer lines (City of Los Alamitos Utilities, 2019). The RLASD provides wastewater collection services to Los Alamitos High School. Wastewater from the proposed building would be transferred to existing sanitary sewer pipelines beneath Cerritos Avenue. Outside of the normal increases and decreases due to normal grade fluctuations, the project is not intended to increase student enrollment. The project would not result in additional staff members onsite. Therefore, the project would not involve an increase in student capacity or associated increase in the generation of wastewater. Therefore, the proposed project is not expected to result in a significant increase in wastewater generation. Because the proposed project would not require the construction of new wastewater facilities, less than significant impacts would occur.

Stormwater Drainage

The stormwater runoff from the project site is not expected to change significantly compared to existing conditions. Upon completion of construction, the project would increase infiltration by only 9 percent over existing conditions (Coast Engineering Designs, Inc. 2019). The WQMP calculated that Post development runoff volume for the two-year, 24-hour storm exceeds the pre-development runoff volume for the two-year, 24-hour storm by more than 5 percent; therefore, all onsite hydrology modification controls will be increased to accommodate 110 percent of the pre-development runoff two-year peak flow rate (Coast Engineering Designs, Inc. 2019). Therefore, the potential for the project to create runoff which would exceed the capacity of existing or planned stormwater drainage systems would be less than significant.

In addition, California Government Code § 53097 requires school districts to comply with city and county ordinances regulating drainage improvements and requiring review and approval of grading plans as they relate to design and construction of onsite improvements that affect drainage. The District would comply with California Government Code § 53097 in implementing the proposed project. This compliance would ensure that the proposed project would not require or result in the construction of new stormwater drainage facilities or expansion of existing facilities. Therefore, potential impacts would be considered less than significant.

Electric Power

Electrical service in the City of Los Alamitos is provided by Southern California Edison (City of Los Alamitos Utilities, 2019). The new building would be in compliance with the California Green Building Code. In order to facilitate energy efficiency, the building would be designed to accept solar panels and battery storage. In addition to high-efficiency HVAC systems, the energy usage of the new building will be substantially lower than the current energy use of the existing buildings to be replaced by the proposed new STEM building.

It is anticipated that the proposed new building would need relocation of or new electricity lines to serve the new building. However, the proposed project would not require or result in the relocation or construction of new or expanded electric power facilities such as electrical power stations or new



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facilities/infrastructure that would generate additional electric power. Therefore, the project would have a less than significant impact in this regard.

Natural Gas

Natural gas service in the City of Los Alamitos is provided by Southern California Gas Company (Southern California Gas Company, 2009). Due to the nature of the proposed project, the STEM building would use a de minimis amount of natural gas, associated with the science facilities in the new building. The majority of gas consumption for the proposed project would be from the roof-mounted air conditioning units provided with gas heating. However, the amount of gas used to heat the proposed building would not require or result in the relocation or construction of new or expanded natural gas facilities. The project would have a less than significant impact in this regard.

Telecommunications Facilities

Telecommunications facilities can include land line telephone lines, cellular towers and internet. The California Public Utilities Commission (CPUC) collects data annually to provide California residents a way to look up information about broadband services available via the California Interactive Broadband Map. The data informs public policies intended to ensure broadband is available throughout California, and to promote digital literacy and broadband usage (CPUC, 2019a) As shown on the CPUC's California Interactive Broadband Map, both Frontier and Charter Communications provide internet access in the project area. Additionally, Verizon, T-Mobile, and Sprint provide phone service in the project area (CPUC, 2019b). The project would have a less than significant impact on telecommunications facilities because there are ample service providers for both internet and phone service in the project area.

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

Less Than Significant Impact

The proposed classrooms are intended to replace some of the existing portable classrooms. Outside of the normal increases and decreases due to normal grade fluctuations, the project is not intended to increase student enrollment. The proposed project would not result in a change in the number of school staff members. Therefore, the project does not involve an increase in student or staff capacity or associated increase in water usage. Therefore, the proposed project would not increase water usage such that new or expanded water entitlements are needed.

Increased implementation of aggressive conservation programs by water districts throughout the state consisting of: expansion of reclaimed water use, increased utilization and management of groundwater, and continued water desalination research and development, would significantly strengthen long-term water supply reliability in the Los Alamitos area.

As detailed in the City of Los Alamitos General Plan Update Draft EIR, "The forecast net increase in water demands due to General Plan buildout is well within the forecast increase in GSWC water supplies from 2015 to 2035 (1,043 afy [acre-feet per year]). While California currently faces very severe drought conditions, GSWC forecasts that it will have adequate water supplies to meet demands in single-dry-year and multiple-dry-year conditions from 2015 through 2035" (Placeworks, 2014, p. 5.12-19). Water demand due to General Plan buildout would not require GSWC to obtain



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new or increased water supplies, and impacts would be less than significant. Therefore, because future water supplies would be available to serve the proposed project, less than significant impacts to water supplies would result from the proposed project.

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

Less Than Significant Impact

As previously described in **Sections 4.19 a)** and **4.19 b)**, the stormwater runoff from the project site and wastewater generated by the project is not expected to change significantly compared to existing conditions, and would be insignificant compared to the permitted capacity for existing wastewater treatment facilities that provide service to the area. Outside of the normal increases and decreases due to normal grade fluctuations, the project is not intended to increase student enrollment and would not result in a change in the number of school staff members. Therefore, the wastewater treatment provider which serves the project site would have adequate capacity to serve the project's projected demand in addition to the provider's existing commitments. Less than significant impacts to wastewater treatment services would result from implementation of the proposed project.

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

Less than Significant Impact

The California Department of Resources Recycling and Recovery (CalRecycle) provides Estimated Solid Waste Generation Rates as a forecasting tool for waste generated by development projects. This rate accounts for all waste materials that are disposed, and does not factor in recycling. Solid waste would be temporarily generated from construction and demolition activities. The project does not involve an increase in student capacity or school staff, or a change in the use of the project site; therefore, solid waste generation during operation is not expected to increase significantly. Information about permitted capacity at landfills serving the City of Los Alamitos is provided in **Table 4.19-1**.



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Table 4.19-1
LANDFILL CAPACITY FOR THE CITY OF LOS ALAMITOS

Landfill	Location	Remaining Capacity (cubic yards)	Maximum Capacity (cubic yards)	Estimated Close Date	Maximum Daily Loads (tons)
Azusa Land Reclamation Co. Landfill (30)	1211 W. Gladstone Street Azusa, CA 91702	51,512,201	80,571,760	1/1/2045	8,000
Frank R. Bowerman Sanitary Landfill (58)	11002 Bee Canyon Access Road Irvine, CA 92618	205,000,000	266,000,000	12/31/2053	11,500
Olinda Alpha Sanitary Landfill	1942 N. Valencia Avenue Brea, CA 92823	32,200,000	148,800,000	12/31/2021	8,000
Sunshine Canyon City/County Landfill	14747 San Fernando Road Sylmar, CA 91342	96,800,000	140,900,000	12/31/2037	12,100

Source: CalRecycle, Facility/Site Summary Detail, <https://www.calrecycle.ca.gov/swfacilities>, Accessed: February 18, 2019.

The City of Los Alamitos contracts with Republic Services for refuse and recycling services (City of Los Alamitos Utilities, 2019). Project construction and operation would generate solid waste requiring disposal at local landfills. Materials generated during construction of the project would include paper, cardboard, metal, plastics, glass, concrete, lumber scraps and other materials. During construction (short-term) and operation (long-term), bulk solid waste, excess building material, fill, etc., shall be disposed of in a manner consistent with State of California Integrated Waste Management Act of 1989 (CIWMA) and shall be removed from the project site. Existing regulations related to recycling during construction and operation phases of the project, require the project to provide readily accessible areas that serve the entire building and are identified for the depositing, storage, and collection of nonhazardous materials for recycling, including (at a minimum) paper, corrugated cardboard, glass, plastics, and metals.

As depicted in **Table 4.19-1** above, the permitted capacity of nearby landfills would be more than adequate to meet the needs of the proposed project. Therefore, the project's construction waste would represent a fraction of the landfill capacity. Because the project would not induce additional students or staff, therefore, solid waste generated by the project would be similar to existing conditions. Since sufficient permitted landfill capacity exists to support the proposed project, no adverse impact to either solid waste collection service or the landfill disposal system would occur. Therefore, project impacts on existing solid waste disposal facilities would be less than significant.

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

No Impact

The California Integrated Waste Management Act of 1989 (AB 939) redefined solid waste management in terms of both objectives and planning responsibilities for local jurisdictions and the state. AB 939 was adopted in an effort to reduce the volume and toxicity of solid waste that is landfilled and incinerated, by requiring local governments to prepare and implement plans to



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improve the management of waste resources. AB 939 required each of the cities and unincorporated portions of the counties throughout California to divert a minimum of 25 percent of the solid waste sent to landfills by 1995 and 50 percent by the year 2000. To attain goals for reductions in disposal, AB 939 established a planning hierarchy using new integrated solid waste management practices.

Assembly Bill 341 increased the statewide goal for waste diversion to 75 percent by 2020; and requires recycling of waste from commercial and multifamily residential land uses (City of Los Alamitos General Plan EIR, 2015, p. 5.12-31).

The California Solid Waste Reuse and Recycling Access Act (AB 1327) requires areas to be set aside for collecting and loading recyclable materials in development projects. The act required the California Integrated Waste Management Board to develop a model ordinance for adoption by any local agency requiring adequate areas for collection and loading of recyclable materials as part of development projects (City of Los Alamitos General Plan EIR. 2015. p. 5.12-31).

Section 5.408 of the 2013 California Green Building Standards Code (Title 24, California Code of Regulations, Part 11) requires that at least 50 percent of the nonhazardous construction and demolition waste from nonresidential construction operations be recycled and/or salvaged for reuse (City of Los Alamitos General Plan EIR, 2015, p. 5.12-31).

Any businesses, including public entities, generating four cubic yards or more of commercial solid waste per week, must arrange recycling services. Businesses can take one or any combination of self-haul, hauling subscription, recycling pickup, or subscription to recycling services to reuse, recycle, compost, or divert solid waste from disposal (City of Los Alamitos, 2019).

The project would comply with AB 939 (Zero Waste program) and other applicable local, State, and federal solid waste disposal standards, such as those discussed above, thereby ensuring that the solid waste stream to regional landfills is reduced in accordance with existing regulations. Therefore, no impacts are anticipated.



4.20 Wildfire

If located in or near state responsibility areas or lands classified as very high fire hazard severity zones, would the project:	Potentially Significant Impact	Less than Significant Impact with Mitigation Incorporated	Less than Significant Impact	No Impact
a) Substantially impair an adopted emergency response plan or emergency evacuation plan?			X	
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?			X	
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?			X	
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?			X	

As demonstrated in **Figure 4.9-3** in **Section 4.9** of this IS/MND, the project site is not located in a Fire Hazard Severity Zone Local Responsibility Area (LRA). Review of the CAL FIRE Fire Resource and Assessment Program (FRAP) maps for state responsibility areas (SRAs) indicates that the project site is not located in an SRA (CAL FIRE, 2018). Moreover, the City of Los Alamitos does not contain any areas classified as very high fire hazard severity zones (VHFHSZs) in state responsibility areas. The nearest VHFHSZ is located in Fullerton, CA, over 20 miles away from the project site. Therefore, the project site is not located in a fire hazard severity zone, and is not located in a fire hazard severity zone for either an SRA or an LRA, as detailed in **Figure 4.9-2** and **Figure 4.9-3** above.

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

Less than Significant Impact

As detailed above, the project site is not located in or near an area or lands classified as very high fire hazard severity zones. The 2014 Los Alamitos General Plan Update EIR states, "...the City and its SOI is generally built out, and the proposed land use changes would not result in substantial changes to the circulation patterns or emergency access routes." Development on the project site has been accounted for in the general plan and impacts on emergency services were determined as less than significant. Since the project is not located in an SRA, LRA, or VHFHSZ and development on the project



site has been considered in the City's safety plans, the project would not impair implementation of or physically interfere with an adopted emergency response plan or emergency evacuation plan (City of Los Alamitos, 2015). A less than significant impact would occur.

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

Less than Significant Impact

As detailed above, the project site is not located in or near areas or lands classified as VHFHSZs. No slopes are located on the project site which could exacerbate wildfire risks. Therefore, the project would not expose project occupants to pollutant concentrations from a wildfire or the uncontrolled spread of a wildfire. Therefore, the proposed project would have a less than significant impact in this regard.

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

Less than Significant Impact

As detailed above, the project site is not located in or near areas or lands classified as VHFHSZs. The project would not require the installation or maintenance of associated infrastructure that may exacerbate fire risk. As demonstrated in this document, neither construction nor operation of the project would, after implementation of mitigation, result in significant temporary or ongoing impacts to the environment. It would be constructed in compliance with applicable building and fire codes. Therefore, the proposed project would have a less than significant impact in this regard.

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

Less than Significant Impact

As detailed above, the project site is not located in or near areas or lands classified as VHFHSZs. The proposed project would not expose people or structures to significant risks, including downslope or downstream flooding or landslides, as a result of runoff, post-fire slope instability, or drainage changes. The project site is flat, is not located in an area with high slopes or unstable ground conditions, and is not within a landslide hazard zone. Therefore, the proposed project would have a less than significant impact in this regard.

**4.21 Mandatory Findings of Significance**

Does the project have:	Potentially Significant Impact	Less than Significant Impact with Mitigation Incorporated	Less than Significant Impact	No Impact
a) 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?		X		
b) 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)?		X		
c) Environmental effects which will cause substantial adverse effects on human beings, either directly or indirectly?		X		

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

Less than Significant Impact with Mitigation Incorporated

Section 4.4 of this document addresses impacts on biological resources. The project site is located in an urbanized area that already has buildings, structures, sidewalks, and developed area that would not support sensitive habitats or special-status plant or wildlife species.

The project site supports ornamental vegetation and structures that could potentially provide cover and nesting habitat for bird species that have adapted to urban areas. Trees and shrubs will be removed during construction of the proposed project. Therefore, mitigation measure **BIO-1** is recommended to reduce potential impacts on nesting bird species to a less than significant level.



❖ SECTION 4.21 - MANDATORY FINDINGS OF SIGNIFICANCE ❖

Section 4.5 of this document addresses potential impacts on Cultural Resources. The proposed project is located on a site that has been previously developed with existing buildings and improvements. No historical or archaeological resources were identified within the proposed project site during the site visit conducted by UltraSystems' cultural resources staff; however, in the unlikely event that cultural resources are discovered during precise grading activities, mitigation measures **CUL-1** through **CUL-4** are recommended to reduce potential impacts on archeological resources, paleontological resources, and human remains to a less than significant level.

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

Less than Significant Impact with Mitigation Incorporated

The proposed project would be consistent with regional plans and programs that address environmental factors such as air quality, water quality, and other applicable regulations that have been adopted by public agencies with jurisdiction over the project for the purpose of avoiding or mitigating environmental effects.

Sections 4.3 and 4.13 of this document address potential impacts related to Air Quality and Noise, respectively. The proposed project would have less than significant air quality impacts. With the incorporation of mitigation measure **N-1**, project impacts associated with noise levels during project construction would be reduced to less than significant levels. As detailed in **Section 4.3**, operational air quality impacts would be less than significant and do not warrant mitigation. As detailed in **Section 4.13**, operational noises associated with the project site were found to be less than significant and do not warrant mitigation.

The project would generate new short-term construction jobs in the project area. Due to the relatively small size of this project, and its location within an existing urban area, the project is not expected to induce substantial growth in the region. The project does not include a housing component or otherwise support an increase in the resident population of the City and would utilize existing infrastructure for its operation. Therefore, indirect population growth resulting solely from the project is expected to be less than significant.

Because the project would not increase environmental impacts after mitigation measures are incorporated, the incremental contribution to cumulative impacts is anticipated to be less than significant with mitigation incorporated.

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

Less than Significant Impact with Mitigation Incorporated

As discussed in **Sections 4.1** through **4.20** of this document, after the implementation of mitigation measures, potential adverse environmental effects were found to be less than significant on human beings, either directly or indirectly. Therefore, less than significant impacts would occur.



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7.0 MITIGATION MONITORING AND REPORTING PROGRAM

The Mitigation Monitoring and Reporting Program (MMRP) has been prepared in conformance with § 21081.6 of the Public Resources Code and § 15097 of the California Environmental Quality Act (CEQA) Guidelines, which requires all state and local agencies to establish monitoring or reporting programs whenever approval of a project relies upon a Mitigated Negative Declaration (MND) or an Environmental Impact Report (EIR). The MMRP ensures implementation of the measures being imposed to mitigate or avoid the significant adverse environmental impacts identified through the use of monitoring and reporting. Monitoring is generally an ongoing or periodic process of project oversight. Reporting generally consists of a written compliance review that is presented to the decision-making body or authorized staff person.

It is the intent of the MMRP to (1) provide a framework for document implementation of the required mitigation, (2) identify monitoring/reporting responsibility, (3) provide a record of the monitoring/reporting, and (4) ensure compliance with those mitigation measures that are within the responsibility of the Los Alamitos Unified School District (District) to implement.

As discussed in the Environmental Analysis conducted for this Initial Study/Mitigated Negative Declaration, impact areas requiring mitigation are:

- Biological Resources
- Cultural Resources
- Geology and Soils
- Hazards and Hazardous Materials
- Noise

The following table lists impacts, mitigation measures adopted by the District in connection with approval of the proposed project, level of significance after mitigation, responsible and monitoring parties, and the project phase in which the measures are to be implemented.



❖ SECTION 7.0 - MITIGATION MONITORING & REPORTING PROGRAM ❖

Table 7.0-1
MITIGATION MONITORING AND REPORTING PROGRAM

TOPICAL AREA IMPACT	MITIGATION MEASURE	RESPONSIBLE PARTY	MONITORING ACTION	1. ENFORCEMENT AGENCY 2. MONITORING AGENCY 3. MONITORING PHASE
BIOLOGICAL RESOURCES				
Threshold 4.4 a) Would the project have a substantial adverse effect, either directly or through habitat modifications, on any species identified as a candidate, sensitive, or special-status species in local or regional plans, policies, or regulations, or by the California Department of Fish and Wildlife or U.S. Fish and Wildlife Service?	MM BIO-1: If project construction occurs between February 1 to September 31, a qualified biologist shall conduct a preconstruction nesting bird survey no earlier than one week prior to construction. If the nests are still occupied, a buffer of 200 feet shall be maintained around any active nest, and the avian biologist shall visit the site once a week, until the avian biologist can determine that the young have fledged or the nest has become inactive.	Project Applicant	Field Verification	1. Los Alamitos Unified School District 2. Los Alamitos Unified School District 3. Project Construction
CULTURAL RESOURCES				
Threshold 4.5 a) Would the project cause a substantial adverse change in the significance of an archaeological resource pursuant to § 15064.5?	MM CUL-1: If historical or unique archaeological resources are discovered during construction activities, the contractor shall halt construction activities in the immediate area and notify the Los Alamitos Unified School District. The on-call qualified archaeologist shall be notified and afforded the necessary time to recover, analyze, and curate the find(s). The qualified archaeologist shall recommend the extent of archaeological monitoring necessary to ensure the protection of any other resources that may be in the area and afforded the necessary time and funds to recover, analyze, and curate the find(s). Construction activities may continue on other parts of the project site while evaluation and treatment of historical or unique archaeological resources takes place.	Project Applicant	Field Verification	1. Los Alamitos Unified School District 2. Los Alamitos Unified School District 3. Project Construction



❖ SECTION 7.0 - MITIGATION MONITORING & REPORTING PROGRAM ❖

TOPICAL AREA IMPACT	MITIGATION MEASURE	RESPONSIBLE PARTY	MONITORING ACTION	1. ENFORCEMENT AGENCY 2. MONITORING AGENCY 3. MONITORING PHASE
CULTURAL RESOURCES				
Threshold 4.5 a) Would the project cause a substantial adverse change in the significance of an archaeological resource pursuant to § 15064.5?	MM CUL-2: If a local Native American tribal organization(s) request that a tribal representative and/or a qualified archaeologist monitor construction at the project location, then the project proponent shall retain and schedule any required monitors during all monitored excavations. At the discretion of the monitoring archaeologist, excavation or other ground-disturbing activities must be halted when an archaeological artifact or feature is observed. Native American monitors will be required to complete and submit daily monitoring logs to the project proponent's lead archaeologist while at the project site.	Project Applicant	Field Verification	1. Los Alamitos Unified School District 2. Los Alamitos Unified School District 3. Project Construction
Threshold 4.5 b) Would the project disturb any human remains, including those interred outside of formal cemeteries?	MM CUL-3: If human remains are encountered during excavations associated with this project, all work shall stop within a 30-foot radius of the discovery and the Orange County Coroner will be notified (§ 5097.98 of the Public Resources Code). The Coroner will determine whether the remains are recent human origin or older Native American ancestry. If the coroner, with the aid of the supervising archaeologist, determines that the remains are prehistoric, they will contact the NAHC. The NAHC will be responsible for designating the Most Likely Descendant (MLD). The MLDS (either an individual or sometimes a committee) will be responsible for the ultimate disposition of the remains, as required by § 7050.5 of the California Health and Safety Code. The MLD will make recommendations within 24 hours of their notification by the NAHC. These recommendations may include scientific removal and nondestructive analysis of human remains and items associated with Native American burials (§ 7050.5 of the Health and Safety Code).	Project Applicant	Field Verification	1. Los Alamitos Unified School District 2. Los Alamitos Unified School District 3. Project Construction



❖ SECTION 7.0 - MITIGATION MONITORING & REPORTING PROGRAM ❖

TOPICAL AREA IMPACT	MITIGATION MEASURE	RESPONSIBLE PARTY	MONITORING ACTION	1. ENFORCEMENT AGENCY 2. MONITORING AGENCY 3. MONITORING PHASE
GEOLOGY AND SOILS				
Threshold 4.7 f) Would the project directly or indirectly destroy a unique paleontological resource or site or unique geologic feature?	MM GEO-1: If paleontological resources are uncovered during construction activities, the contractor shall halt construction activities in the immediate area and notify the Los Alamitos Unified School District. The on-call paleontologist shall be notified and afforded the necessary time and funds to recover, analyze, and curate the find(s). Subsequently, the monitor shall remain onsite for the duration of the ground disturbance to ensure the protection of any other resources that may be in the area.	Project Applicant	Field Verification	1. Los Alamitos Unified School District 2. Los Alamitos Unified School District 3. Project Construction
HAZARDS AND HAZARDOUS MATERIALS				
Threshold 4.9 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? and Threshold 4.9 c) Would the project emit hazardous emissions or handle hazardous or acutely hazardous materials, substances, or waste within one-quarter mile of an existing or proposed school?	MM HAZ-1: Prior to commencement of project construction, a limited subsurface investigation shall be conducted at the project site to determine the presence or absence of soil and/or groundwater contamination due to the potential that agricultural related chemicals such as organochlorine pesticides, herbicides, fertilizers and arsenic may have been used and stored onsite, and the former offsite Unocal gasoline service station. If contamination is found in the soil or groundwater, the impacted soils and groundwater shall be handled and disposed of in accordance with all applicable laws.	Project Applicant	Field Verification	1. Los Alamitos Unified School District 2. Los Alamitos Unified School District 3. Project Construction
Threshold 4.9 b) Create a significant hazard to the public or the environment through reasonably foreseeable upset and accident conditions involving the release of	MM HAZ-2: Due to the age of the existing buildings and the potential presence of asbestos containing materials (ACMs), testing shall be conducted prior to demolition and a Hazardous Material Abatement Plan shall be prepared. Prior to the commencement of demolition, the project proponent shall retain a qualified environmental consultant to conduct a	Project Applicant	Field Verification	1. Los Alamitos Unified School District 2. Los Alamitos Unified School District



❖ SECTION 7.0 - MITIGATION MONITORING & REPORTING PROGRAM ❖

TOPICAL AREA IMPACT	MITIGATION MEASURE	RESPONSIBLE PARTY	MONITORING ACTION	1. ENFORCEMENT AGENCY 2. MONITORING AGENCY 3. MONITORING PHASE
hazardous materials into the environment? and Threshold 4.9 c) Would the project emit hazardous emissions or handle hazardous or acutely hazardous materials, substances, or waste within one-quarter mile of an existing or proposed school?	comprehensive survey of the existing buildings to confirm the presence or absence of ACMs and lead-based paint (LBP). A comprehensive lead-based paint survey of painted surfaces at the subject property shall occur prior to any renovation or demolition activities to confirm the presence or absence of LBP to prevent potential exposure to workers and/or building occupants. If the existing buildings are found to contain any ACMs or LBP, a detailed Hazardous Material Abatement Plan shall be prepared, approved, and implemented. The Hazardous Material Abatement Plan shall include a site-specific scope of work and specifications for the proper disposal of hazardous materials. The Hazardous Material Abatement Plan shall be prepared and implemented in accordance with the Asbestos National Emission Standards for Hazardous Air Pollutants (NESHAP) and all other federal and state standards and regulations including the DTSC, California Department of Education (CDE), and Office of Public School Construction (OPSC). The Hazardous Material Abatement Plan shall require that all ACMs and LBP be removed and properly disposed of in accordance with the provisions of the Hazardous Material Abatement Plan. The Hazardous Material Abatement Plan shall be implemented prior to demolition activities to ensure that any hazardous materials are properly identified, removed, and disposed of offsite at a landfill that can accept asbestos and any other hazardous materials removed from the site. A qualified environmental consultant shall be present on the project site during demolition activities and shall monitor compliance with the Hazardous Material Abatement Plan.			3. Prior to commencement of demolition
Threshold 4.9 b) Create a significant hazard to the public or the environment through reasonably foreseeable upset and accident conditions involving the release of	MM HAZ-3: Due to the presence of arsenic and other potential contamination in the soil, a Soil Management Plan shall be prepared. Prior to the commencement of grading and excavation, the project proponent shall retain a qualified environmental consultant to prepare a Soil Management Plan for Contaminated Soils (SMP), which will be submitted to the City of Los Alamitos Department of Building	Project Applicant	Field Verification	1. Los Alamitos Unified School District 2. Los Alamitos Unified School District



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TOPICAL AREA IMPACT	MITIGATION MEASURE	RESPONSIBLE PARTY	MONITORING ACTION	1. ENFORCEMENT AGENCY 2. MONITORING AGENCY 3. MONITORING PHASE
hazardous materials into the environment? and Threshold 4.9 c) Would the project emit hazardous emissions or handle hazardous or acutely hazardous materials, substances, or waste within one-quarter mile of an existing or proposed school?	and Safety for review and approval prior to the commencement of excavation and grading activities. The SMP shall require that the project shall remove and properly dispose of impacted materials in accordance with the provisions of the SMP. All impacted soils would be properly treated and disposed of in accordance with applicable requirements of the DTSC, and County of Orange Fire Department. The SMP shall be implemented during excavation and grading activities on the project site to ensure that any contaminated soils are properly identified, excavated, and disposed of offsite. Contaminated soils shall be transported from the project site by a licensed transporter and disposed of at a licensed storage/treatment facility to prevent contaminated soils from becoming airborne or otherwise released into the environment. A qualified environmental consultant shall be present on the project site during grading and excavation activities in the known or suspected locations of contaminated soils, and shall be on call at other times as necessary, to monitor compliance with the SMP and to actively monitor the soils and excavations for evidence of contamination.			3. During project construction
Threshold 4.9 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? and Threshold 4.9 c) Would the project emit hazardous	MM HAZ-4: Soil in the area of borings with reported arsenic concentrations above 4.4 mg/Kg should be stockpiled separately during soil removal activities and disposed of at a landfill that will accept these soils. The stockpile generated from soil removal in these areas should be sampled for waste characterization and appropriate disposal.	Project Applicant	Field Verification	1. Los Alamitos Unified School District 2. Los Alamitos Unified School District 3. During project construction



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TOPICAL AREA IMPACT	MITIGATION MEASURE	RESPONSIBLE PARTY	MONITORING ACTION	1. ENFORCEMENT AGENCY 2. MONITORING AGENCY 3. MONITORING PHASE
emissions or handle hazardous or acutely hazardous materials, substances, or waste within one-quarter mile of an existing or proposed school?				
Threshold 4.9 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? and Threshold 4.9 c) Would the project emit hazardous emissions or handle hazardous or acutely hazardous materials, substances, or waste within one-quarter mile of an existing or proposed school?	MM HAZ-5: Soil in the area of boring B1, which reported an elevated concentration of Diesel Range Organics (DRO) at 5 feet bgs, and borehole B20 at 2 feet bgs, should be stockpiled separately upon removal. The stockpile generated from soil removal in this area should be sampled for waste characterization and appropriate disposal.	Project Applicant	Field Verification	1. Los Alamitos Unified School District 2. Los Alamitos Unified School District 3. During project construction
Threshold 4.9 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? and	MM HAZ-6: Soils with signs of impact (odor, staining, etc.) if encountered during excavation should be separately stockpiled and sampled to evaluate if it exceeds screening criteria used in the Updated Technical Memorandum – Waste Characterization Soil Sampling prepared by Ninyo & Moore, dated October 31, 2018.	Project Applicant	Field Verification	1. Los Alamitos Unified School District 2. Los Alamitos Unified School District 3. During project construction



❖ SECTION 7.0 - MITIGATION MONITORING & REPORTING PROGRAM ❖

TOPICAL AREA IMPACT	MITIGATION MEASURE	RESPONSIBLE PARTY	MONITORING ACTION	1. ENFORCEMENT AGENCY 2. MONITORING AGENCY 3. MONITORING PHASE
Threshold 4.9 c) Would the project emit hazardous emissions or handle hazardous or acutely hazardous materials, substances, or waste within one-quarter mile of an existing or proposed school?				
Threshold 4.9 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? and Threshold 4.9 c) Would the project emit hazardous emissions or handle hazardous or acutely hazardous materials, substances, or waste within one-quarter mile of an existing or proposed school?	MM HAZ-7: Other soil to be removed by future construction activities can be disposed of offsite at an appropriate disposal facility as non-hazardous waste. Written prior acceptance at the disposal facility should be obtained. Depending on the facility's acceptance criteria, additional sampling may be recommended.	Project Applicant	Field Verification	1. Los Alamitos Unified School District 2. Los Alamitos Unified School District 3. During project construction
Threshold 4.9 i) Is the proposed school site located near an aboveground water or fuel storage tank or within 1,500 feet of an easement of an aboveground or underground pipeline that can pose a safety hazard to the site?	MM HAZ-8: Special permit procedures should be considered for any excavation adjacent to the pipelines within 1,500 feet of the site; namely the 8-inch diameter crude oil pipelines operated by Crimson and Chevron along Norwalk Boulevard and Cerritos Avenue, such as the presence of pipeline operation personnel during excavation, the issuance of a permit, and proper licensing of the excavation contractor. This would be in addition to the mandatory notification of the Underground Service Alert within 48 hours of proposed excavation so utilities and other underground structures can be	Project Applicant	Field Verification	1. Los Alamitos Unified School District 2. Los Alamitos Unified School District 3. During project construction and



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TOPICAL AREA IMPACT	MITIGATION MEASURE	RESPONSIBLE PARTY	MONITORING ACTION	1. ENFORCEMENT AGENCY 2. MONITORING AGENCY 3. MONITORING PHASE
	marked. These actions would significantly reduce the potential for construction damage to the pipelines that could lead to a significant and potentially hazardous event.			during project operations
Threshold 4.9 i) Is the proposed school site located near an aboveground water or fuel storage tank or within 1,500 feet of an easement of an aboveground or underground pipeline that can pose a safety hazard to the site?	MM HAZ-9: Crimson and Chevron should provide written assurances to the Los Alamitos Unified School District that they are in full compliance with all Federal, State, and local statutes, regulations, and laws relevant to the operation of the pipelines, and shall remain in compliance throughout the period they are in operation. These assurances should also apply to inspection and repair programs for the pipeline, shutoff valves, corrosion protection, and emergency response. Crimson and Chevron should notify the Los Alamitos School District when they have plans to work on these pipelines within 1,500 feet of the site.	Project Applicant	Field Verification	1. Los Alamitos Unified School District 2. Los Alamitos Unified School District 3. Prior to commencement of demolition
Threshold 4.9 i) Is the proposed school site located near an aboveground water or fuel storage tank or within 1,500 feet of an easement of an aboveground or underground pipeline that can pose a safety hazard to the site?	MM HAZ-10: An emergency response and excavation plan should be prepared for the site (if not currently prepared and available) that includes, but are not limited to, considerations of a pipeline leak or rupture within the vicinity of the site. The plan should establish logical egress steps for evacuation that will reduce the chances of injury and/or fatality from events that could occur due to the rupture of pipelines.	Project Applicant	Field Verification	1. Los Alamitos Unified School District 2. Los Alamitos Unified School District 3. Prior to commencement of demolition
Threshold o) If prepared, has the risk assessment been performed with a focus on children's health posed by a hazardous materials release or threatened release, or the presence of naturally occurring hazardous materials on the school site?	Refer to Mitigation Measures HAZ-1 through HAZ-10 above.	Refer to Mitigation Measures MM HAZ-1 through MM HAZ-10 above.	Refer to Mitigation Measures MM HAZ-1 through MM HAZ-10 above.	Refer to Mitigation Measures MM HAZ-1 through MM HAZ-10 above.



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TOPICAL AREA IMPACT	MITIGATION MEASURE	RESPONSIBLE PARTY	MONITORING ACTION	1. ENFORCEMENT AGENCY 2. MONITORING AGENCY 3. MONITORING PHASE
NOISE				
Threshold 4.13 a) Would the project result in generation of a substantial temporary or permanent increase in ambient noise levels in the vicinity of the project in excess of standards established in the local general plan or noise ordinance, or applicable standards of other agencies?	MM N-1: Los Alamitos High School administrative staff will obtain and regularly update a day-by-day construction schedule from the construction contractor. On days when intense construction will occur within 150 feet of an occupied classroom, the school will arrange to move the students in that class.	Project Applicant	Field Verification	1. Los Alamitos Unified School District 2. Los Alamitos Unified School District 3. Project Construction