

June 2016 | Initial Study/Mitigated Negative Declaration

SAN JUAN HILLS HIGH SCHOOL CAMPUS IMPROVEMENTS

Capistrano Unified School District

Prepared for:

Capistrano Unified School District

Contact: John Forney,
Executive Director, Facilities, Maintenance & Operations
33122 Valle Road
San Juan Capistrano, California 92675
949.234.9543

Prepared by:

PlaceWorks

Contact: Dwayne S. Mears, AICP, Principal
Jorge Estrada, Senior Associate
3 MacArthur Place, Suite 1100
Santa Ana, California 92707
714.966.9220
info@placeworks.com
www.placeworks.com





CAPISTRANO UNIFIED SCHOOL DISTRICT

33122 VALLE ROAD, SAN JUAN CAPISTRANO CA 92675
TELEPHONE: (949) 234-9200/FAX: 496-7681 www.capousd.org

BOARD OF TRUSTEES
AMY HANACEK
PRESIDENT

JIM REARDON
VICE PRESIDENT

MARTHA McNICHOLAS
CLERK

JOHN M. ALPAY

LYNN HATTON-HODSON

GILA JONES

GARY PRITCHARD, PH.D.

SUPERINTENDENT
KIRSTEN M. VITAL

MITIGATED NEGATIVE DECLARATION

The Capistrano Unified School District (CUSD or District) has completed an Initial Study for the San Juan Hills High School Campus Improvements project. The Initial Study was completed in accordance with the California Environmental Quality Act (CEQA, California Public Resources Code §§ 21000 et seq.), and the State CEQA Guidelines (California Code of Regulations §§ 15000 et seq.).

The Initial Study concluded that the proposed project would not have a significant effect on the environment with implementation of mitigation. Accordingly, this Mitigated Negative Declaration (MND) has been prepared for the proposed project.

LEAD AGENCY and PROJECT PROPONENT: Capistrano Unified School District

PROJECT TITLE: San Juan Hills High School Campus Improvements

PROJECT LOCATION: The project site comprises the San Juan Hills High School campus at 29211 Vista Montana in the City of San Juan Capistrano, Orange County.

PROJECT DESCRIPTION: The proposed project involves a number of improvements in two areas of the campus of San Juan Hills High School, including the construction of a new two-story classroom building, parking and circulation improvements, pedestrian walkways, and installation of new landscaping. Improvements would occur in areas of the campus that are currently developed with parking area and circulation improvements. The remainder of the campus and the improvements within those areas would remain in their current condition and not undergo any changes under the proposed project.

EXISTING CONDITIONS: The project site encompasses the overall campus of San Juan Hills High School, which is a public school serving grade levels nine through twelve. The portions of the school campus where improvements would occur under the proposed project consist of parking area improvements (i.e., asphalt, concrete walkway and curb face, light polls, and minimal landscaping).

SUMMARY OF IMPACTS: The attached Initial Study was prepared to identify the potential effects on the environment from the construction and operation of the proposed project. Based on the environmental analysis contained in the Initial Study, the proposed project would have no impacts or less-than-significant environmental impacts associated with the following CEQA checklist environmental topics:

SERVING THE COMMUNITIES OF:

ALISO VIEJO • COTO DE CAZA • DANA POINT • LADERA RANCH • LAGUNA NIGUEL • LAS FLORES • MISSION VIEJO
RANCHO SANTA MARGARITA • SAN CLEMENTE • SAN JUAN CAPISTRANO

- Air Quality
- Aesthetics
- Agriculture and Forestry Resources
- Air Quality
- Biological Resources
- Cultural Resources
- Geology and Soil
- Greenhouse Gas Emissions
- Hazards and Hazardous Materials
- Hydrology and Water Quality
- Land Use and Planning
- Mineral Resources
- Noise
- Population and Housing
- Public Services
- Recreation
- Transportation and Traffic
- Utilities and Service Systems

Based on the environmental analysis contained in the Initial Study, the proposed project would have significant environmental impacts associated with the following environmental topics: Cultural Resources (related to archeological and paleontological resources) and Transportation and Traffic (related to operational impacts at a study area intersection). However, as substantiated in the Initial Study, the proposed project would not have a significant effect on the environment with implementation of mitigation measures. After implementation of mitigation measures, impacts would be reduced to a level of less than significant.

Table of Contents

| Section | Page |
|--|-----------|
| 1. INTRODUCTION | 1 |
| 1.1 OVERVIEW..... | 1 |
| 1.2 ENVIRONMENTAL PROCESS | 1 |
| 1.3 MITIGATED NEGATIVE DECLARATION AND SUPPORTING INITIAL STUDY... | 2 |
| 1.4 IMPACT TERMINOLOGY | 2 |
| 1.5 ORGANIZATION OF THE INITIAL STUDY | 3 |
| 2. ENVIRONMENTAL SETTING | 5 |
| 2.1 PROJECT LOCATION..... | 5 |
| 2.2 EXISTING CONDITIONS..... | 5 |
| 2.3 SURROUNDING LAND USE | 5 |
| 2.4 EXISTING ZONING AND GENERAL PLAN..... | 5 |
| 3. PROJECT DESCRIPTION | 15 |
| 3.1 PROPOSED PROJECT | 15 |
| 3.2 LEAD AGENCY | 31 |
| 4. ENVIRONMENTAL CHECKLIST | 33 |
| 4.1 BACKGROUND..... | 33 |
| 4.2 ENVIRONMENTAL FACTORS POTENTIALLY AFFECTED..... | 34 |
| 4.3 DETERMINATION..... | 34 |
| 4.4 EVALUATION OF ENVIRONMENTAL IMPACTS..... | 35 |
| 4.5 ENVIRONMENTAL CHECKLIST | 36 |
| 5. ENVIRONMENTAL ANALYSIS | 45 |
| 5.1 AESTHETICS | 45 |
| 5.2 AGRICULTURE AND FORESTRY RESOURCES..... | 46 |
| 5.3 AIR QUALITY | 47 |
| 5.4 BIOLOGICAL RESOURCES..... | 54 |
| 5.5 CULTURAL RESOURCES | 56 |
| 5.6 GEOLOGY AND SOILS..... | 59 |
| 5.7 GREENHOUSE GAS EMISSIONS | 64 |
| 5.8 HAZARDS AND HAZARDOUS MATERIALS | 67 |
| 5.9 HYDROLOGY AND WATER QUALITY..... | 70 |
| 5.10 LAND USE AND PLANNING..... | 74 |
| 5.11 MINERAL RESOURCES | 75 |
| 5.12 NOISE..... | 75 |

Table of Contents

| | | |
|-----------|---|------------|
| 5.13 | POPULATION AND HOUSING..... | 84 |
| 5.14 | PUBLIC SERVICES..... | 85 |
| 5.15 | RECREATION | 87 |
| 5.16 | TRANSPORTATION/TRAFFIC..... | 87 |
| 5.17 | UTILITIES AND SERVICE SYSTEMS..... | 105 |
| 5.18 | MANDATORY FINDINGS OF SIGNIFICANCE..... | 111 |
| 6. | REFERENCES..... | 113 |
| 7. | LIST OF PREPARERS..... | 119 |
| | LEAD AGENCY | 119 |
| | CEQA CONSULTANT..... | 119 |

APPENDICES

- A. Air Quality and Greenhouse Gas Emission Background and Modeling Data
- B. Geotechnical Investigation
- C. Traffic Counts and Intersection Calculation Worksheets

Table of Contents

List of Figures

| Figure | | Page |
|---------------|---|-------------|
| Figure 1 | Regional Location | 7 |
| Figure 2 | Local Vicinity | 9 |
| Figure 3 | Aerial Photograph..... | 11 |
| Figure 4 | Site Photographs | 13 |
| Figure 5 | Campus Site Plan | 17 |
| Figure 6 | Phase One Site Plan..... | 19 |
| Figure 7 | Phase Two Site Plan | 21 |
| Figure 8 | Demolition Site Plan | 23 |
| Figure 9 | Classroom Building Perspective | 25 |
| Figure 10 | Classroom Building Elevations and Perspectives | 27 |
| Figure 11 | Traffic Study Analysis Area..... | 91 |
| Figure 12 | Intersection Lane Configurations and Traffic Controls | 95 |

List of Tables

| Table | | Page |
|--------------|---|-------------|
| Table 1 | Maximum Daily Regional Construction Emissions | 49 |
| Table 2 | Maximum Daily Regional Operational Phase Emissions..... | 50 |
| Table 3 | Localized Construction Emissions..... | 51 |
| Table 4 | Construction BMPs | 62 |
| Table 5 | Project-Related GHG Emissions | 65 |
| Table 6 | Typical Vibration Levels Produced by Common Construction Equipment..... | 79 |
| Table 7 | Intersection LOS Criteria for Signalized Intersections | 88 |
| Table 8 | Intersection LOS Criteria for Intersections..... | 88 |
| Table 9 | Existing Conditions Intersection Level of Service | 94 |
| Table 10 | Project Trip Generation..... | 97 |
| Table 11 | Long Range 2035 Without Project Conditions Intersection Level of Service..... | 98 |
| Table 12 | Long Range 2035 With Project Conditions Intersection Level of Service..... | 99 |
| Table 13 | 2035 Intersection Impact Analysis | 100 |
| Table 14 | Landfills Serving San Juan Capistrano..... | 109 |

Abbreviations and Acronyms

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

Abbreviations and Acronyms

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

Abbreviations and Acronyms

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

Abbreviations and Acronyms

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

Abbreviations and Acronyms

This page intentionally left blank.

1. Introduction

1.1 OVERVIEW

The Capistrano Unified School District (CUSD or District) prepared this Initial Study to evaluate the potential environmental consequences associated with the proposed San Juan Hill High School campus improvements, which include a new two-story classroom building and parking area and circulation improvements in the southern and southwestern portions of the campus. As part of CUSD's approval process, the proposed project is required to undergo an environmental review pursuant to the California Environmental Quality Act (CEQA). The Initial Study is a preliminary analysis prepared by the lead agency to determine whether an Environmental Impact Report or a Negative Declaration is required. If the Initial Study concludes that the project may have a significant effect on the environment, an Environmental Impact Report (EIR) must be prepared. Otherwise, a Negative Declaration or Mitigated Negative Declaration is prepared. The information provided in this Initial Study supports the conclusion that a Mitigated Negative Declaration is the appropriate level of review for the proposed project.

1.2 ENVIRONMENTAL PROCESS

The completion of the environmental compliance process is governed by two principal regulations: California Environmental Quality Act (CEQA) (California Public Resources Code [PRC] §§ 21000 et seq.) and the State CEQA Guidelines (California Code of Regulations [CCR] §§ 15000 et seq.). CEQA was enacted in 1970 by the California Legislature to disclose to decision makers and the public the significant environmental effects of proposed activities and to identify ways to avoid or reduce the environmental effects through feasible alternatives or mitigation measures. Compliance with CEQA applies to California government agencies at all levels: local, regional, and state agencies, boards, commissions, and special districts (such as school districts and water districts). CUSD is the lead agency for the proposed project and is therefore required to conduct an environmental review to analyze the potential environmental effects associated with the proposed project.

PRC Section 21080(a) states that analysis of a project's environmental impact is required for any "discretionary projects proposed to be carried out or approved by public agencies...." In this case, CUSD would approve and carry out the proposed project and has, therefore, prepared this Initial Study to determine whether there is substantial evidence that implementation of the project would result in significant environmental impacts. An Initial Study is a preliminary environmental analysis to determine whether an environmental impact report (EIR), a mitigated negative declaration (MND), or a negative declaration (ND) is required for a project (CEQA Guidelines § 15063). An Initial Study is required to contain a project description; a description of the environmental setting; an identification of environmental effects by checklist or other similar form; an explanation of environmental effects; a discussion of mitigation for significant environmental effects; an evaluation of the project's consistency with existing, applicable land use controls; the names of persons who prepared the study; and identification of data sources.

1. Introduction

When an Initial Study identifies the potential for significant environmental impacts, the lead agency must prepare an EIR (CEQA Guidelines § 15064); however, if all impacts can be mitigated to a less-than-significant level, the lead agency can prepare an MND that incorporates mitigation measures into the project (CEQA Guidelines § 15070).

1.3 MITIGATED NEGATIVE DECLARATION AND SUPPORTING INITIAL STUDY

This Initial Study was prepared to determine if the proposed project would have a significant impact on the environment. The purposes of the Initial Study is to 1) provide the lead agency with information to use as the basis for deciding the proper type of CEQA document to prepare; 2) enable the lead agency to modify a project, mitigating adverse impacts before an EIR is prepared, thereby enabling the project to qualify for a negative declaration; 3) assist the preparation of an EIR, if one is required; 4) facilitate environmental assessment early in the design of a project; 5) provide documentation of the factual basis for the findings in an MND or ND; 6) eliminate unnecessary EIRs; and 7) determine if the project is covered under a previously prepared EIR (CEQA Guidelines § 15063).

Based on the findings in this Initial Study, the District has determined that an MND is the appropriate level of environmental documentation for the proposed project. The mitigation measures in this Initial Study are designed to reduce or eliminate the potentially significant environmental impacts described herein. Mitigation measures are structured in accordance with the criteria in Section 15370 of the State CEQA Guidelines.

1.4 IMPACT TERMINOLOGY

The following terminology is used to describe the level of significance of impacts.

- A finding of ***no impact*** is appropriate if the analysis concludes that the project would not affect the particular topic area in any way.
- An impact is considered ***less than significant*** if the analysis concludes that it would cause no substantial adverse change to the environment and requires no mitigation.
- An impact is considered ***less than significant with mitigation incorporated*** if the analysis concludes that it would cause no substantial adverse change to the environment with the inclusion of environmental commitments or other enforceable mitigation measures.
- An impact is considered ***potentially significant*** if the analysis concludes that it could have a substantial adverse effect on the environment. If any impact is identified as potentially significant, an EIR would need to be prepared.

1. Introduction

1.5 ORGANIZATION OF THE INITIAL STUDY

The contents and format of this document are designed to meet the requirements of CEQA. The conclusions in this initial study are that the proposed project, as mitigated, would have no significant impacts. This document contains the following sections:

- **Section 1, Introduction,** identifies the purpose and scope of the MND and supporting Initial Study and the terminology used.
- **Section 2, Environmental Setting,** describes the existing conditions, surrounding land uses, general plan designations, and existing zoning of the project site and surrounding area.
- **Section 3, Project Description,** identifies the location, background, and describes the proposed project in detail.
- **Section 4, Environmental Checklist,** presents the CEQA checklist and the impact significance finding for each environmental topic.
- **Section 5, Environmental Analysis,** provides an evaluation of the environmental topics and a response to questions contained in the CEQA checklist and identifies mitigation measures, if required.
- **Section 6, References,** identifies all references and individuals cited in this Initial Study.
- **Section 7, List of Preparers,** identifies the individuals who prepared the MND and supporting Initial Study and technical studies and their areas of technical specialty.
- **Appendices** present data supporting the analysis or contents of this Initial Study.
 - A. Air Quality and Greenhouse Gas Emission Background and Modeling Data
 - B. Geotechnical Investigation
 - C. Traffic Counts and Intersection Calculation Worksheets

1. Introduction

This page intentionally left blank.

2. Environmental Setting

2.1 PROJECT LOCATION

The project site comprises the San Juan Hills High School campus at 29211 Vista Montana (west of La Pata Avenue and north of Vista Montana) in the City of San Juan Capistrano (City), Orange County. The site lies within the Whispering Hills Estates Planned Community of the City. The City of San Juan Capistrano is in the southern part of Orange County and is surrounded by the City of Mission Viejo and unincorporated Orange County to the north; the cities of Laguna Niguel and Dana Point to the west; the City of San Clemente to the south; and unincorporated Orange County to the east. Figures 1, *Regional Location*, and 2, *Local Vicinity*, show the location of the project site within the regional and local contexts of Orange County and the City of San Juan Capistrano, respectively. Regional access to the project site is provided via Interstate 5 and Ortega Highway (State Route 74), with local access provided via La Pata Avenue (see Figure 2).

2.2 EXISTING CONDITIONS

Existing land uses on and surrounding the project site are shown in Figure 3, *Aerial Photograph*, while Figure 4, *Site Photographs*, depicts the existing conditions of the portions of the project site where improvements would occur under the proposed project. As shown in Figure 3, the project site encompasses the overall campus of San Juan Hills High School, which is a public school serving grade levels nine through twelve. The campus comprises a number of one- and two-story buildings and structures and other site improvements associated with the high school. Campus-wide site improvements include parking areas and drive aisles; pedestrian paths and walkways; playfields and hardcourts; an outdoor swimming pool; and other hardscape and landscape improvements (see Figures 3 and 4). As shown in Figure 4, the portions of the project site where improvements would occur consist of hardscape and landscape improvements associated with the southernmost parking area of the campus, as well as a portion of the southwestern parking area and circulation improvements (including the roundabout).

2.3 SURROUNDING LAND USE

The project site is surrounded by residential uses and open space to the south, across Vista Montana Avenue, and open space to the west, north and east (see Figure 3).

2.4 EXISTING ZONING AND GENERAL PLAN

Per the City's zoning map, the project site is zoned PC (Planned Community) District. The City's General Plan land use map designates the project site as Planned Community.

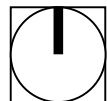
2. Environmental Setting

This page intentionally left blank.

Figure 1 - Regional Location
2. Environmental Setting



0 3
Scale (Miles)

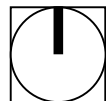


Source: ESRI, 2015

PlaceWorks

2. Environmental Setting

This page intentionally left blank.



PlaceWorks

2. Environmental Setting

This page intentionally left blank.

Figure 3 - Aerial Photograph
2. Environmental Setting



2. Environmental Setting

This page intentionally left blank.

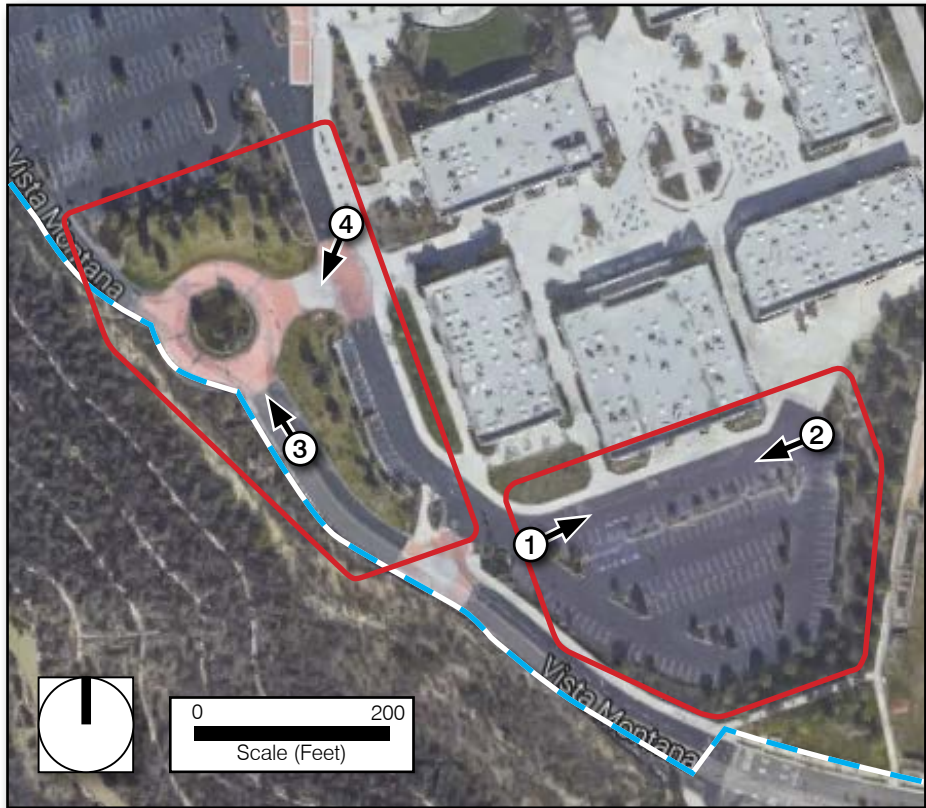
Figure 4 - Site Photographs
2. Environmental Setting



① View looking east across the Phase Two area of improvement.



② View looking west across the Phase Two area of development.

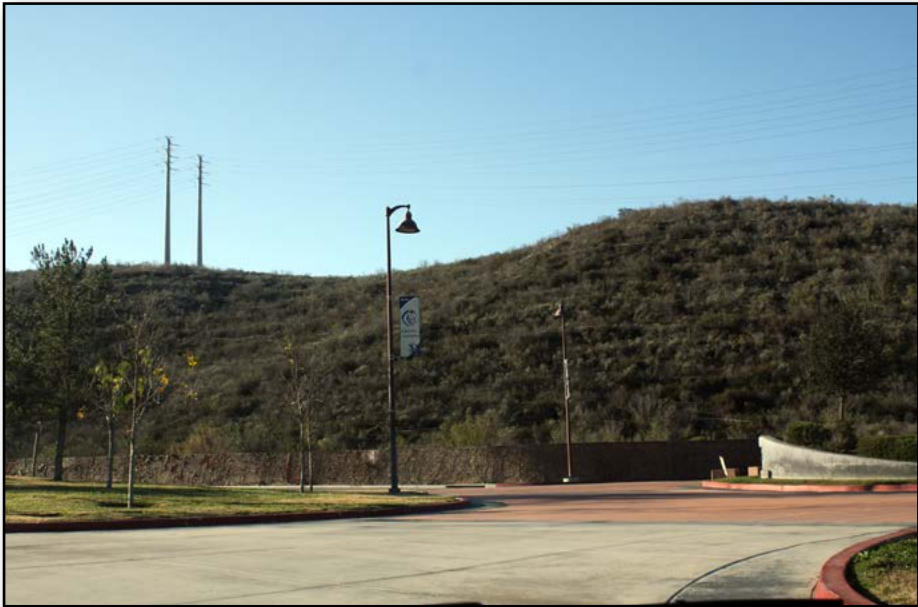


- Project Site Boundary
- Area of Improvement
- ① Photo Location and Direction

Key Map



③ View looking northwest across Phase 1 area of improvement.



④ View looking southwest across Phase 1 area of improvement.

2. Environmental Setting

This page intentionally left blank.

3. Project Description

3.1 PROPOSED PROJECT

The proposed project involves a number of improvements in the southern and southwestern portions of the campus of San Juan Hills High School (see Figures 3, *Aerial Photograph*, and 5, *Campus Site Plan*), including the construction of a new two-story classroom building, parking area and circulation improvements, pedestrian walkways, and installation of new landscaping. The remainder of the campus and the improvements within those areas would remain in their current condition and not undergo any changes under the proposed project. The proposed improvements are consistent with the existing institutional uses onsite and with the PC (Planned Community) District zoning designation of the project site, which permits institutional uses subject to the City approval of a Comprehensive Development Plan (CDP). Specifically, the proposed improvements are covered under the existing and adopted CDP that covers the project site (CDP 04-01 for Whispering Hills Planned Community, as adopted by Ordinance No. 896 on August 3, 2004), which permitted development of the high school campus back in 2007. The high school officially opened in the 2007-2008 school year.

The proposed improvements would occur in two phases and in two separate but contiguous areas of the campus, as discussed below and shown in Figures 6, *Phase One Site Plan*, and 7, *Phase Two Site Plan*. Figures 6 and 7 also show the boundaries/limits of the areas of improvement associated with the proposed project.

3.1.1 Site Plan and Character

Phase One Improvements

Phase One of the proposed project includes the redesign of and modifications to an area of the southwestern portion of the campus that is currently developed with parking area, circulation, and landscape improvements; refer to Figures 3, *Aerial Photograph*, and 8, *Demolition Site Plan*, for the existing layout and design of the parking area and circulation improvements within Phase One. As shown in Figures 5 and 6, improvements to this area of the campus include the expansion of one of the existing parking areas (southern portion of Parking Lot A), introduction of a new parking area (labeled as “Parking Lot B” in Figure 5), development of new circulation improvements that would include north-south and east-west drive aisles, and new pedestrian improvements, including cement walkways and crosswalk striping. Redesign of this portion of the campus would also feature new landscaping and lighting improvements associated with the new parking area and circulation improvements.

Construction of the new parking area and circulation improvements require demolition of various hardscape improvements (e.g., asphalt paving, cement curb faces) associated with the existing parking area and circulation improvements (including removal of the roundabout and ground-level monument sign located within the roundabout), and removal of some parking area trees; site features and improvements to be demolished and removed are shown in Figures 3 and 4, *Site Photographs*.

3. Project Description

Phase Two Improvements

Phase Two includes construction of a new two-story classroom building and associated improvements in an area of the southern portion of the campus that is currently developed with parking area and circulation improvements; refer to Figures 3 and 8 for the existing layout and design of the parking area and circulation improvements within Phase Two.

Construction of the proposed classroom building and associated improvements require demolition of various hardscape improvements (e.g., asphalt paving, cement curb faces) associated with the existing parking area and circulation improvements, and removal of some parking area trees; site features and improvements to be demolished and removed are shown in Figures 3, 4, and 8.

As shown in Figures 5 and 7, the new two-story classroom building (37 feet in height) would be placed south of existing Building C, within a portion of the southernmost parking area. The classroom building would be added to alleviate overcrowding at San Juan Hills High School. The new building would total approximately 22,226 square feet and be of light-wood frame construction with localized steel framing. It would feature a total of 24 standard classrooms and support spaces, 2 men's restrooms, 2 women's restrooms, and 4 staff restrooms; the number of classrooms and restrooms would be evenly split between the two floors. The building would also include an elevator with an elevator lobby area on each floor, as well as exterior stairs.

Figures 9, *Classroom Building Perspective*, and 10, *Classroom Building Elevations and Perspectives*, provide perspectives of the proposed classroom building and illustrate the conceptual building elevations and the proposed architectural style and elements of the building. As shown in these figures, the architectural style of the building is contemporary; building materials would consist of cement plaster walls, terra cotta tile, painted steel columns, and an EFIS (Exterior Insulation and Finish Systems) Cornice to match existing buildings on campus.

The school's student and staff population is discussed below under Section 3.1.4, *Student and Staff Numbers*.

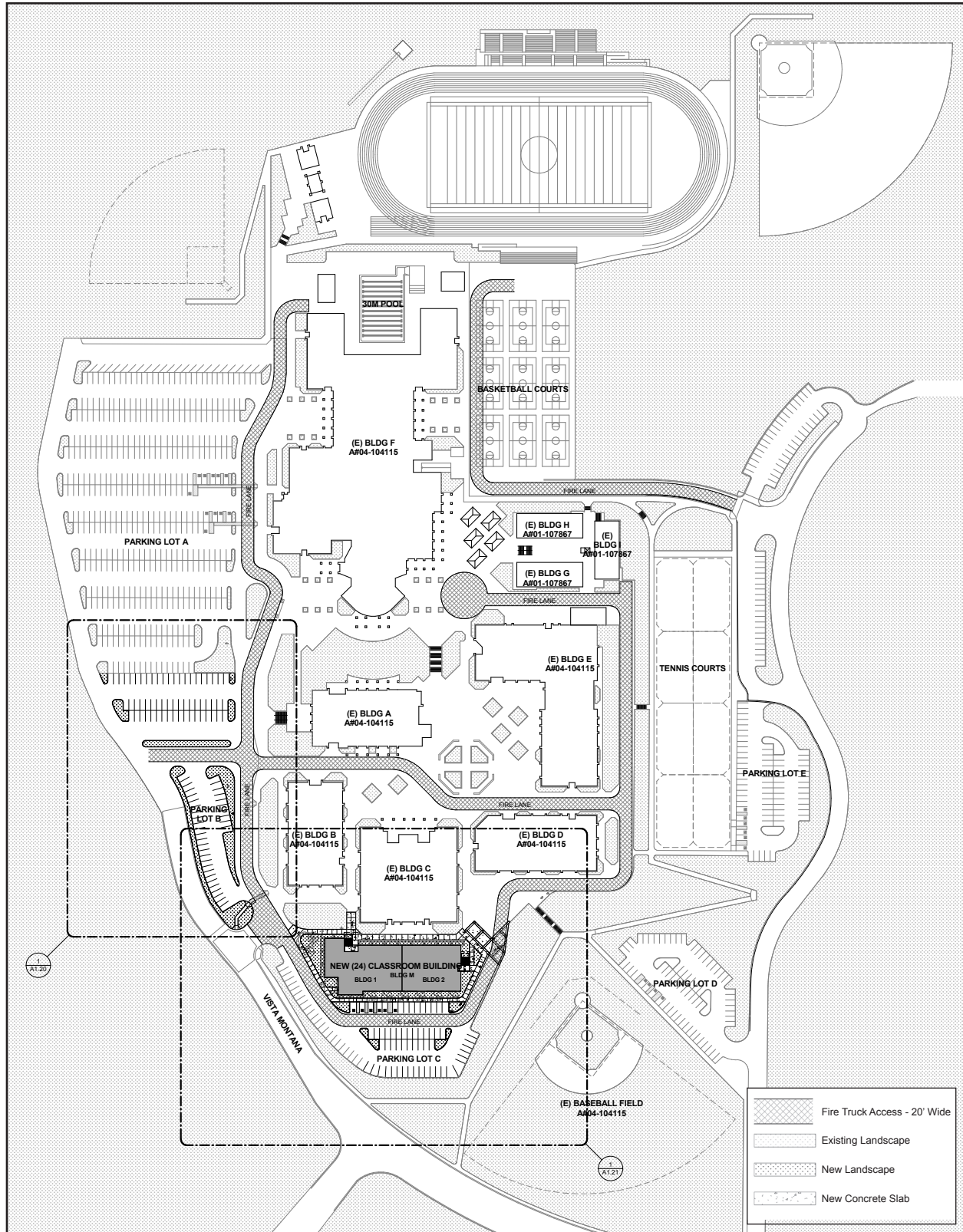
3.1.2 Parking

The proposed project would involve the removal of 146 parking spaces within the two areas of improvement; however, 157 new parking spaces would be added in these areas under the proposed project, for a net increase of 11 parking spaces on the campus; parking calculations and breakdown are provided in Table 1.

Table 1 Existing and Proposed Parking for Areas of Improvement

| | Phase One Area of Improvement | Phase Two Area of Improvement | Total for Both Phases |
|--------------------------------|-------------------------------|-------------------------------|-----------------------|
| Existing Parking | 18 | 150 | 168 |
| Parking to be Removed | 18 | 128 | 146 |
| Parking to be Added | 95 | 62 | 157 |
| Parking at Completion of Phase | 95 | 84 | 179 |
| Net Increase/(Decrease) | 77 | (66) | 11 |

Figure 5 - Campus Site Plan
3. Project Description



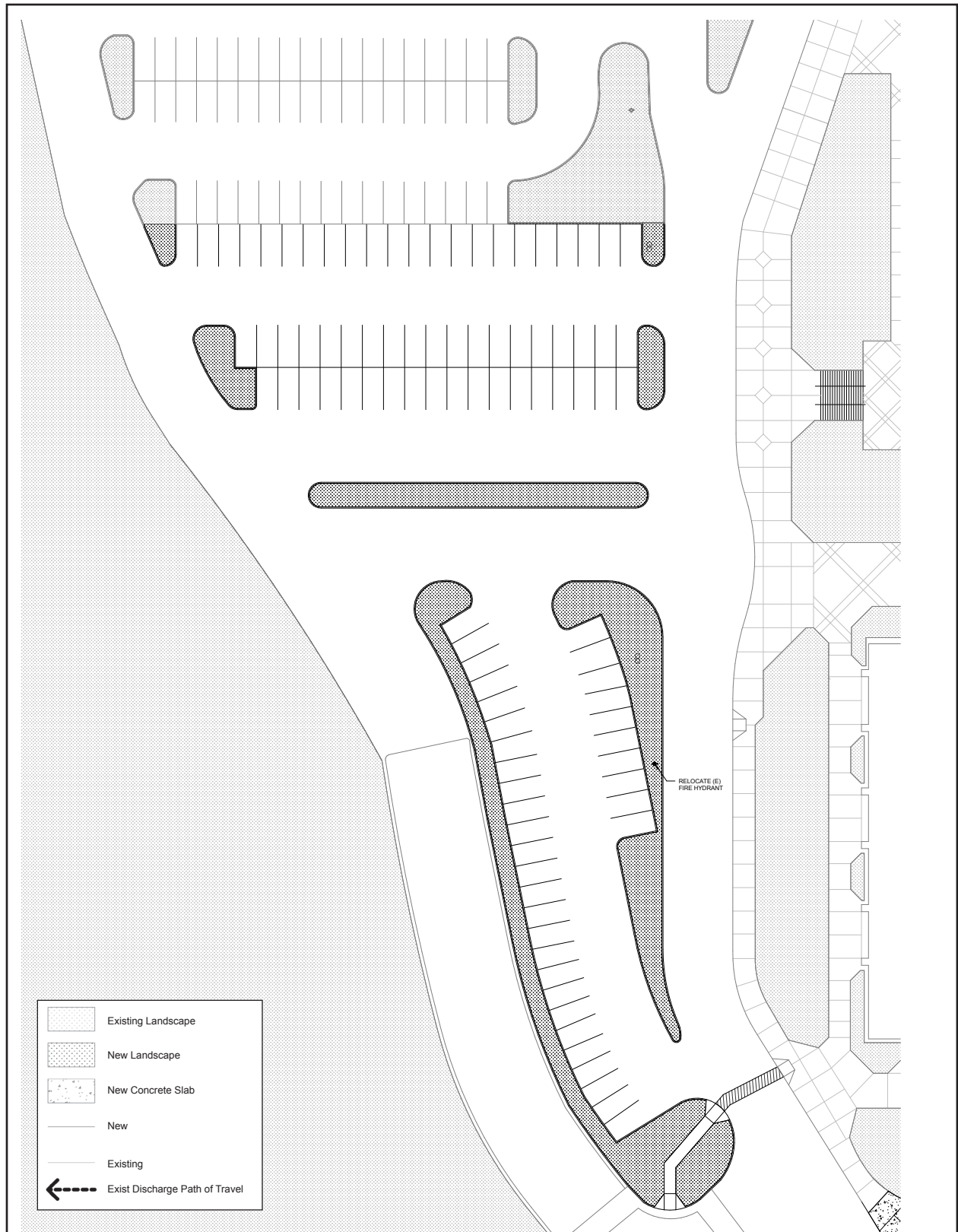
0 300
Scale (Feet)



3. Project Description

This page intentionally left blank.

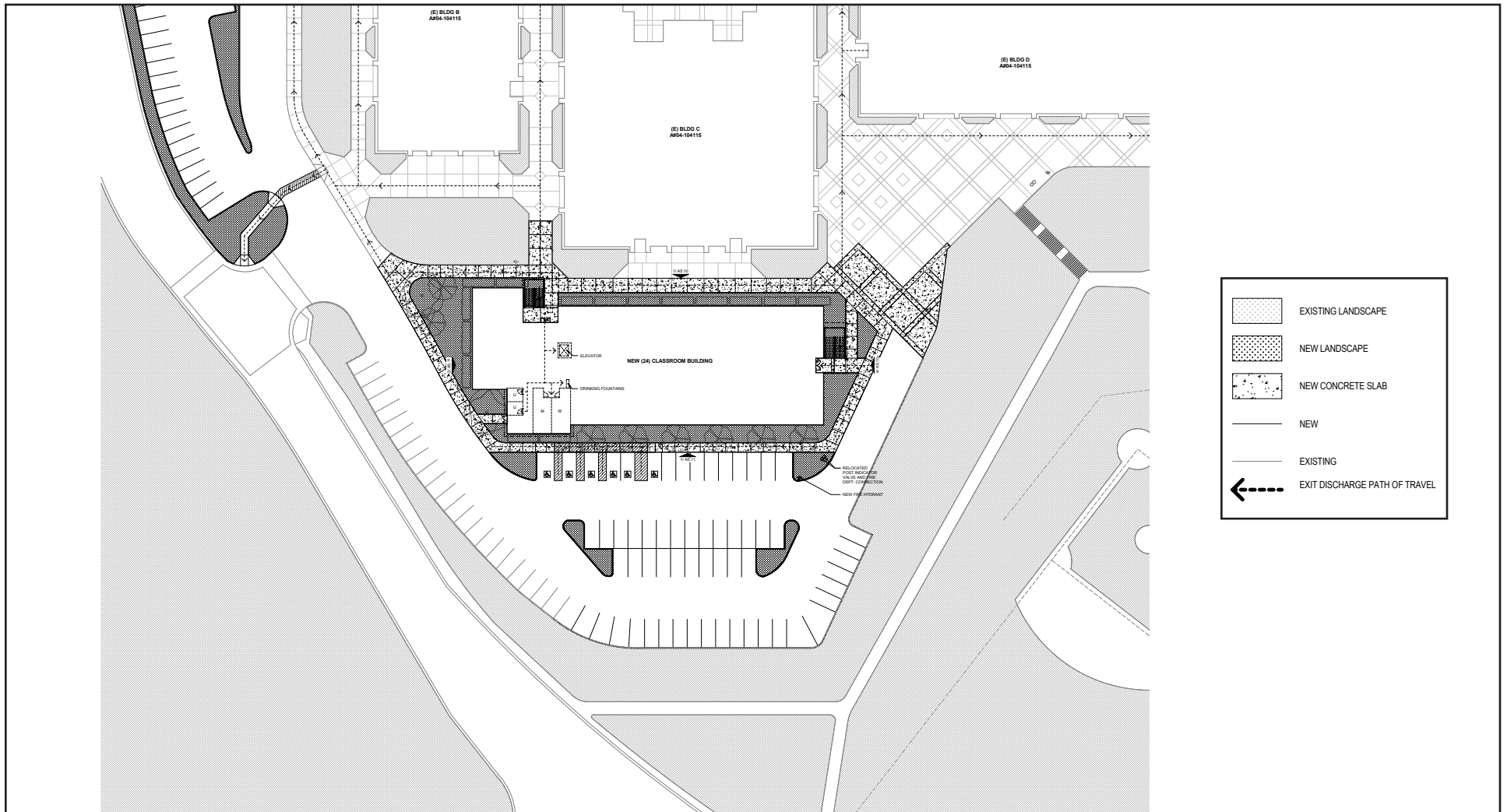
Figure 6 - Phase One Site Plan
3. Project Description



3. Project Description

This page intentionally left blank.

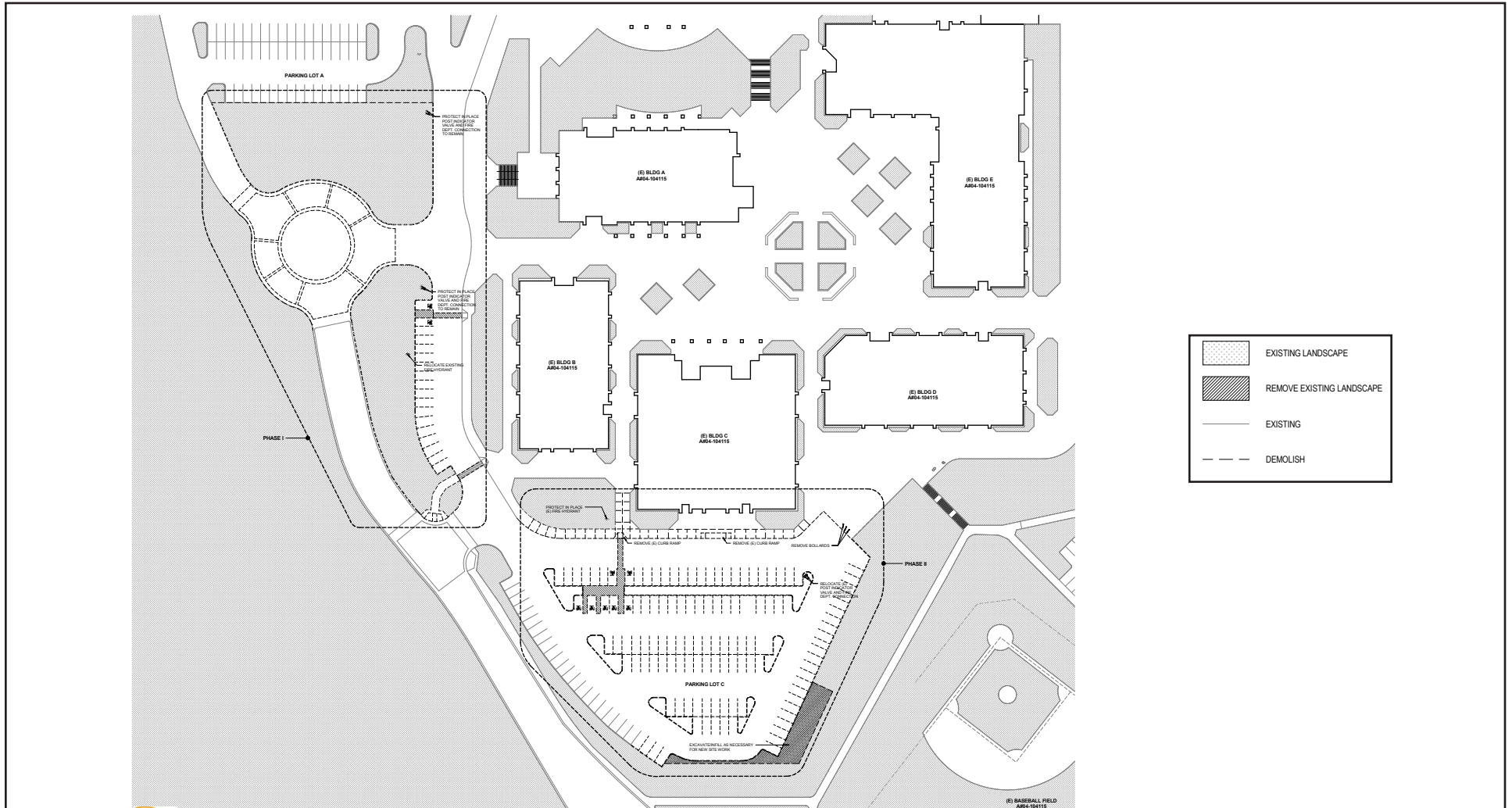
Figure 7 - Phase Two Site Plan
3. Project Description



3. Project Description

This page intentionally left blank.

Figure 8 - Demolition Site Plan
 3. Project Description



3. Project Description

This page intentionally left blank.

Figure 9 - Classroom Building Perspective
3. Project Description



3. Project Description

This page intentionally left blank.

Figure 10 - Classroom Building Elevations and Perspectives
3. Project Description



3. Project Description

This page intentionally left blank.

3. Project Description

3.1.3 Landscaping

Planting Design

Under the proposed project, new landscaping would only be introduced within the limits/boundaries of the two areas of improvement. The proposed planting design would be characterized by utilizing a low water-use, low maintenance plant palette to tie into the existing campus. Plant species would include a combination of native and California adaptive species. Trees would be provided in plant-able areas to create opportunities for shaded outdoor learning, and lower-scale plants would be used at entry points and key areas around the building to soften the building edges. Focal trees would be used to accent building entries, with canopy shade trees installed in new the parking areas to maximize shade. The overall landscape design would comply with local regulations and tie into the overall character of the campus.

Irrigation Design

The proposed irrigation design would utilize high efficiency irrigation technology, including low flow heads and a smart irrigation controller. The irrigation system would be designed with a master valve and flow sensor to automatically shut off irrigation in case of breakage. Weather-station capability would ensure the controller would water in the most efficient manner.

3.1.4 Student and Staff Numbers

The current student population of the campus is approximately 2,391; the student count is based on enrollment data provided by the California Department of Education, Education Demographics Unit (CDE 2016). The proposed classroom building would add 24 additional classrooms to the campus, thereby resulting in an increase in the number of students. Specifically, the classroom building would result in an increase of 648 students, resulting in a total campus student population of 3,039. In addition to serving the needs of the student increase, the proposed classroom building would be added to alleviate overcrowding at the school. The classroom building would allow the high school staff to shift students from overcrowded classrooms to the new classrooms, thereby freeing up space in existing classrooms. The current staff population on campus would remain as is; no increase in staff would occur under the proposed project.

3.1.5 Wet Utility Infrastructure

Potable Water and Sewer

As a part of the proposed project and to serve the needs of the proposed classroom building, a series of new potable water and sewer lines would connect to the existing water lines within the campus, which connect to the water and sewer mains along Vista Montana. The potable water system would be separate from the fire water system for supply to the proposed classroom building. The potable water system would be designed to meet the requirements of the 2013 California Plumbing Code; improvements would include new water pipes, water shut-off valves, valve boxes, and backflow preventers.

3. Project Description

The fire water system would be designed to comply with NFPA (National Fire Protection Association) 24, “Standard for the Installation of Private Fire Service Mains and Their Appurtenances” 2013 Edition and with the Orange County Fire Authority Guideline B-10 for Fire Master Plans for public schools; improvements would include new water pipes, gate valves, back flow preventers, fire sprinklers, and fire hydrants.

The sanitary sewer system would be designed to meet the requirements of the 2013 California Plumbing Code; improvements would include new sewer pipes and yard boxes.

Proposed potable water and sewer infrastructure improvements would include trenching and exposing existing lines onsite for connections, trenching and installing new lines, and break-in connections to existing main lines. No offsite water or sewer line construction or upsizing would be required for the potable water and sewer systems to accommodate the proposed project.

Drainage

As a part of the proposed project a series of new drainage improvements would be implemented to serve the drainage needs of the proposed project. The drainage system would be designed to meet the requirements of the 2013 California Plumbing Code; improvements would include new storm drain pipes and catch basins.

3.1.6 Sustainability

CUSD’s goal for the proposed project is to minimize the use of natural resources and incorporate sustainable design to the extent possible. In addition to the required 2013 Building and Energy Efficiency Standards and 2013 California Green Building Standards Code (CALGreen), the proposed classroom building would be designed in accordance with SDG&E’s (San Diego Gas & Electric) Savings By Design program, which is an optional program offered by SDG&E. The program encourages high-performance and energy-efficient, non-residential building design and construction. The program allows developers/participants to save money by reducing operating costs; increase comfort, health, and productivity for building occupants; and conserve natural resources.

High performance design strategies/elements that have been integrated into the proposed classroom building include: dual insulated low-E glazing, efficient cool roof (high reflectance/low heat absorption), use of drought tolerant and native species of plants and trees; high efficiency irrigation technology; low water use plumbing fixtures; and LED energy efficient lighting for the interior and exterior of the proposed classroom building.

3.1.7 Project Construction and Phasing

Upon approval of the proposed project by the CUSD Board of Trustees, the proposed improvements would be completed in two phases, as shown in Figures 6, *Phase One Site Plan*, and 7, *Phase Two Site Plan*. Phase One includes the redesign of and modifications to an area of the southwestern portion of the campus that is currently developed with parking area and circulation improvements; Phase Two includes construction of a new two-story classroom building and associated hardscape and landscape improvements in an area of the southern portion of the campus. Overall project construction is estimated to take approximately 10 months,

3. Project Description

beginning in June of 2016. The school would remain in operation through the duration of the construction phase. The types of heavy construction equipment necessary to complete the proposed project would include but not be limited to bulldozers, grading tractors, and dump trucks. No soil import or export would be required, as the areas of improvement would balance.

3.2 LEAD AGENCY

CUSD is the lead agency under CEQA and has approval authority over the proposed project. This IS/MND must be adopted by the CUSD Board of Trustees (Board), confirming its adequacy in complying with the requirements of CEQA. The Board will consider the information in the IS/MND while deciding to approve or deny the proposed project. The analysis contained in this IS/MND is intended to provide environmental review for the whole of the proposed project, including planning, construction, and operation.

3. Project Description

This page intentionally left blank.

4. Environmental Checklist

4.1 BACKGROUND

1. **Project Title:** San Juan Hills High School Campus Improvements

2. **Lead Agency Name and Address:**

Capistrano Unified School District
33122 Valle Road
San Juan Capistrano, California 92675

3. **Contact Person and Phone Number:**

John Forney, Executive Director, Facilities, Maintenance & Operations
949.234.9543

4. **Project Location:**

The project site consists of the San Juan Hills High School campus at 29211 Vista Montana (west of La Pata Avenue and north of Vista Montana) in the City of San Juan Capistrano, Orange County.

5. **Project Sponsor's Name and Address:**

Capistrano Unified School District
33122 Valle Road
San Juan Capistrano, California 92675

6. **General Plan Designation:** Planed Community

7. **Zoning:** PC (Planned Community) District

8. **Description of Project:**

The proposed project involves a number of improvements to the existing campus of San Juan Hill High School; proposed improvements include a new two-story classroom building, parking area and circulation improvements, pedestrian walkways, and other hardscape and landscape improvements in the southern and southwestern portions of the campus. A more detailed description of the proposed project is provided in Section 3, *Project Description*.

9. **Surrounding Land Uses and Setting:**

The project site is surrounded by residential uses and open space to the south, across Vista Montana Avenue, and open space to the west, north and east.

10. **Other Public Agencies Whose Approval Is Required:** None

4. Environmental Checklist

4.2 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," as indicated by the checklist on the following pages.

- | | | |
|---|---|---|
| <input type="checkbox"/> Aesthetics | <input type="checkbox"/> Agriculture & Forestry Resources | <input type="checkbox"/> Air Quality |
| <input type="checkbox"/> Biological Resources | <input type="checkbox"/> Cultural Resources | <input type="checkbox"/> Geology & Soils |
| <input type="checkbox"/> Greenhouse Gas Emissions | <input type="checkbox"/> Hazards & Hazardous Materials | <input type="checkbox"/> Hydrology & Water Quality |
| <input type="checkbox"/> Land Use & Planning | <input type="checkbox"/> Mineral Resources | <input type="checkbox"/> Noise |
| <input type="checkbox"/> Population & Housing | <input type="checkbox"/> Public Services | <input type="checkbox"/> Recreation |
| <input type="checkbox"/> Transportation & Traffic | <input type="checkbox"/> Utilities & Service Systems | <input type="checkbox"/> Mandatory Findings of Significance |

4.3 DETERMINATION

On the basis of this initial evaluation:

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

DWAYNE MEANS
Printed Name

6/3/2016
Date

CAPISTRANO USD
For

4. Environmental Checklist

4.4 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 account of the whole action involved, including off-site as well as on-site, cumulative as well as project-level, indirect as well as direct, and construction as well as operational impacts.
- 3) Once the lead agency has determined that a particular physical impact may occur, then the checklist answers must indicate whether the impact is potentially significant, less than significant with mitigation, or less than significant. “Potentially Significant Impact” is appropriate if there is substantial evidence that an effect may be significant. If there are one or more “Potentially Significant Impact” entries when the determination is made, an EIR is required.
- 4) “Negative Declaration: Less Than Significant With Mitigation Incorporated” applies where the incorporation of mitigation measures has reduced an effect from “Potentially Significant Impact” to a “Less Than Significant Impact.” The lead agency must describe the mitigation measures, and briefly explain how they reduce the effect to a less than significant level.
- 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. Section 15063(c)(3)(D). In this case, a brief discussion should identify the following:
 - a) Earlier Analyses Used. Identify and state where they are available for review.
 - b) Impacts Adequately Addressed. Identify which effects from the above checklist were within the scope of and adequately analyzed in an earlier document pursuant to applicable legal standards, and state whether such effects were addressed by mitigation measures based on the earlier analysis.
 - c) Mitigation Measures. For effects that are “Less than Significant with Mitigation Measures Incorporated,” describe the mitigation measures which were incorporated or refined from the earlier document and the extent to which they address site-specific conditions for the project.
- 6) Lead agencies are encouraged to incorporate into the checklist references to information sources for potential impacts (e.g., general plans, zoning ordinances). Reference to a previously prepared or outside document should, where appropriate, include a reference to the page or pages where the statement is substantiated. 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. Environmental Checklist

4.5 ENVIRONMENTAL CHECKLIST

| Issues | Potentially Significant Impact | Less Than Significant With Mitigation Incorporated | Less Than Significant Impact | No Impact |
|--|--------------------------------|--|------------------------------|-----------|
| I. AESTHETICS. Would the project: | | | | |
| a) Have a substantial adverse effect on a scenic vista? | | | | X |
| b) Substantially damage scenic resources, including, but not limited to, trees, rock outcroppings, and historic buildings within a state scenic highway? | | | | X |
| c) Substantially degrade the existing visual character or quality of the site and its surroundings? | | | | X |
| d) Create a new source of substantial light or glare which would adversely affect day or nighttime views in the area? | | | X | |
| II. AGRICULTURE AND FORESTRY RESOURCES. In determining whether impacts to agricultural resources are significant environmental effects, lead agencies may refer to the California Agricultural Land Evaluation and Site Assessment Model (1997) prepared by the California Dept. of Conservation as an optional model to use in assessing impacts on agriculture and farmland. In determining whether impacts to forest resources, including timberland, are significant environmental effects, lead agencies may refer to information compiled by the California Department of Forestry and Fire Protection regarding the state's inventory of forest land, including the Forest and Range Assessment Project and the Forest Legacy Assessment project; and forest carbon measurement methodology provided in Forest Protocols adopted by the California Air Resources Board. Would the project: | | | | |
| 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 Code 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 |
| III. AIR QUALITY. Where available, the significance criteria established by the applicable air quality management or air pollution control district may be relied upon to make the following determinations. Would the project: | | | | |
| a) Conflict with or obstruct implementation of the applicable air quality plan? | | | X | |
| b) Violate any air quality standard or contribute substantially to an existing or projected air quality violation? | | | X | |
| c) Result in a cumulatively considerable net increase of any criteria pollutant for which the project region is non-attainment under an applicable federal or state ambient air quality standard (including releasing emissions which exceed quantitative thresholds for ozone precursors)? | | | X | |

4. Environmental Checklist

| Issues | Potentially Significant Impact | Less Than Significant With Mitigation Incorporated | Less Than Significant Impact | No Impact |
|---|--------------------------------|--|------------------------------|-----------|
| d) Expose sensitive receptors to substantial pollutant concentrations? | | | X | |
| e) Create objectionable odors affecting a substantial number of people? | | | X | |
| f) 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)] | | | | X |
| g) Would the project create an air quality hazard due to the placement of a school within one-quarter mile of: (a) permitted and nonpermitted 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)] | | | | X |
| IV. BIOLOGICAL RESOURCES. Would the project: | | | | |
| a) Have a substantial adverse effect, either directly or through habitat modifications, on any species identified as a candidate, sensitive, or special status species in local or regional plans, policies, or regulations, or by the California Department of Fish and Game or U.S. Fish and Wildlife Service? | | | | 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 Game or U.S. Fish and Wildlife Service? | | | | X |
| c) Have a substantial adverse effect on federally protected wetlands as defined by Section 404 of the Clean Water Act (including, but not limited to, marsh, vernal pool, coastal, etc.) through direct removal, filling, hydrological interruption, or other means? | | | | 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. Environmental Checklist

| Issues | Potentially Significant Impact | Less Than Significant With Mitigation Incorporated | Less Than Significant Impact | No Impact |
|---|--------------------------------|--|------------------------------|-----------|
| V. CULTURAL RESOURCES. Would the project: | | | | |
| a) Cause a substantial adverse change in the significance of a historical resource as defined in § 15064.5? | | | | X |
| b) Cause a substantial adverse change in the significance of an archaeological resource pursuant to § 15064.5? | | X | | |
| c) Directly or indirectly destroy a unique paleontological resource or site or unique geologic feature? | | X | | |
| d) Disturb any human remains, including those interred outside of formal cemeteries? | | | X | |
| e) Would the project cause a substantial adverse change in the significance of a tribal cultural resource as defined in Public Resources Code 21074? | | | X | |
| VI. GEOLOGY AND SOILS. Would the project: | | | | |
| a) Expose people or structures to 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) Seismic-related ground failure, including liquefaction? | | | X | |
| iv) 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 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 |
| VII. GREENHOUSE GAS EMISSIONS. Would the project: | | | | |
| 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. Environmental Checklist

| Issues | Potentially Significant Impact | Less Than Significant With Mitigation Incorporated | Less Than Significant Impact | No Impact |
|--|--------------------------------|--|------------------------------|-----------|
| VIII. HAZARDS AND HAZARDOUS MATERIALS. Would the project: | | | | |
| 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 for people residing or working in the project area? | | | | X |
| f) For a project within the vicinity of a private airstrip, would the project result in a safety hazard for people residing or working in the project area? | | | | X |
| g) Impair implementation of or physically interfere with an adopted emergency response plan or emergency evacuation plan? | | | | X |
| h) Expose people or structures to a significant risk of loss, injury or death involving wildland fires, including where wildlands are adjacent to urbanized areas or where residences are intermixed with wildlands? | | | X | |
| i) 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? | | | | X |
| j) 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? | | | | X |
| k) 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 |

4. Environmental Checklist

| Issues | Potentially Significant Impact | Less Than Significant With Mitigation Incorporated | Less Than Significant Impact | No Impact |
|---|--------------------------------|--|------------------------------|-----------|
| IX. HYDROLOGY AND WATER QUALITY. Would the project: | | | | |
| a) Violate any water quality standards or waste discharge requirements? | | | X | |
| b) Substantially deplete groundwater supplies or interfere substantially with groundwater recharge such that there would be a net deficit in aquifer volume or a lowering of the local groundwater table level (e.g., the production rate of pre-existing nearby wells would drop to a level which would not support existing land uses or planned uses for which permits have been granted)? | | | 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, in a manner which would result in a substantial erosion or siltation on- or off-site | | | X | |
| d) Substantially alter the existing drainage pattern of the site or area, including through the alteration of the course of a stream or river, or substantially increase the rate or amount of surface runoff in a manner which would result in flooding on- or off-site? | | | X | |
| e) Create or contribute runoff water which would exceed the capacity of existing or planned storm water drainage systems or provide substantial additional sources of polluted runoff? | | | X | |
| f) Otherwise substantially degrade water quality? | | | X | |
| g) Place housing within a 100-year flood hazard area as mapped on a federal Flood Hazard Boundary or Flood Insurance Rate Map or other flood hazard delineation map? | | | | X |
| h) Place within a 100-year flood hazard area structures which would impede or redirect flood flows? | | | | X |
| i) Expose people or structures to a significant risk of loss, injury or death involving flooding, including flooding as a result of the failure of a levee or dam? | | | | X |
| j) Inundation by seiche, tsunami, or mudflow? | | | | X |
| X. LAND USE AND PLANNING. Would the project: | | | | |
| a) Physically divide an established community? | | | | X |
| b) Conflict with any applicable land use plan, policy, or regulation of an agency with jurisdiction over the project (including, but not limited to the general plan, specific plan, local coastal program, or zoning ordinance) adopted for the purpose of avoiding or mitigating an environmental effect? | | | | X |
| c) Conflict with any applicable habitat conservation plan or natural community conservation plan? | | | | X |
| XI. MINERAL RESOURCES. Would the project: | | | | |
| a) Result in the loss of availability of a known mineral resource that would be a 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 |

4. Environmental Checklist

| Issues | Potentially Significant Impact | Less Than Significant With Mitigation Incorporated | Less Than Significant Impact | No Impact |
|---|--------------------------------|--|------------------------------|-----------|
| XII. NOISE. Would the project result in: | | | | |
| a) Exposure of persons to or generation of noise levels in excess of standards established in the local general plan or noise ordinance, or applicable standards of other agencies? | | | X | |
| b) Exposure of persons to or generation of excessive groundborne vibration or groundborne noise levels? | | | X | |
| c) A substantial permanent increase in ambient noise levels in the project vicinity above levels existing without the project? | | | X | |
| d) A substantial temporary or periodic increase in ambient noise levels in the project vicinity above levels existing without the project? | | | 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 expose people residing or working in the project area to excessive noise levels? | | | | X |
| f) For a project within the vicinity of a private airstrip, would the project expose people residing or working in the project area to excessive noise levels? | | | | X |
| XIII. POPULATION AND HOUSING. Would the project: | | | | |
| a) Induce substantial 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 housing, necessitating the construction of replacement housing elsewhere? | | | | X |
| c) Displace substantial numbers of people, necessitating the construction of replacement housing elsewhere? | | | | X |
| XIV. PUBLIC SERVICES. Would the project result in substantial adverse physical impacts associated with the provision of new or physically altered governmental facilities, need for new or physically altered governmental facilities, the construction of which could cause significant environmental impacts, in order to maintain acceptable service ratios, response times or other performance objectives for any of the public services: | | | | |
| a) Fire protection? | | | X | |
| b) Police protection? | | | X | |
| c) Schools? | | | | X |
| d) Parks? | | | | X |
| e) Other public facilities? | | | | X |
| XV. RECREATION. | | | | |
| 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 |

4. Environmental Checklist

| Issues | Potentially Significant Impact | Less Than Significant With Mitigation Incorporated | Less Than Significant Impact | No Impact |
|---|--------------------------------|--|------------------------------|-----------|
| XVI. TRANSPORTATION AND TRAFFIC. Would the project: | | | | |
| a) Conflict with an applicable plan, ordinance or policy establishing measures of effectiveness for the performance of the circulation system, taking into account all modes of transportation including mass transit and non-motorized travel and relevant components of the circulation system, including but not limited to intersections, streets, highways and freeways, pedestrian and bicycle paths, and mass transit? | | X | | |
| b) Conflict with an applicable congestion management program, including, but not limited to level of service standards and travel demand measures, or other standards established by the county congestion management agency for designated roads or highways? | | X | | |
| c) Result in a change in air traffic patterns, including either an increase in traffic levels or a change in location that results in substantial safety risks? | | | | X |
| d) Substantially increase hazards due to a design feature (e.g., sharp curves or dangerous intersections) or incompatible uses (e.g., farm equipment)? | | | X | |
| e) Result in inadequate emergency access? | | | | X |
| f) Conflict with adopted policies, plans, or programs regarding public transit, bicycle, or pedestrian facilities, or otherwise decrease the performance or safety of such facilities? | | | | X |
| XVII. UTILITIES AND SERVICE SYSTEMS. Would the project: | | | | |
| a) Exceed waste water treatment requirements of the applicable Regional Water Quality Control Board? | | | | X |
| b) Require or result in the construction of new water or waste water treatment facilities or expansion of existing facilities, the construction of which could cause significant environmental effects? | | | X | |
| c) Require or result in the construction of new storm water drainage facilities or expansion of existing facilities, the construction of which could cause significant environmental effects? | | | X | |
| d) Have sufficient water supplies available to serve the project from existing entitlements and resources or are new or expanded entitlements needed? | | | X | |
| e) Result in a determination by the waste water 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 | |
| f) Be served by a landfill with sufficient permitted capacity to accommodate the project's solid waste disposal needs? | | | X | |
| g) Comply with federal, state, and local statutes and regulations related to solid waste? | | | | X |

4. Environmental Checklist

| Issues | Potentially Significant Impact | Less Than Significant With Mitigation Incorporated | Less Than Significant Impact | No Impact |
|--|--------------------------------------|--|------------------------------------|--------------|
| XVIII. MANDATORY FINDINGS OF SIGNIFICANCE. | | | | |
| a) Does the project have the potential to 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, 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) 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.) | | | X | |
| c) Does the project have environmental effects which will cause substantial adverse effects on human beings, either directly or indirectly? | | | X | |

4. Environmental Checklist

This page intentionally left blank.

5. Environmental Analysis

Section 4.6 provided a checklist of environmental impacts. This section provides an evaluation of the environmental topics in the checklist and identifies mitigation measures, if required.

5.1 AESTHETICS

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

No Impact. San Juan Hills High School is set in the hills in south Orange County, contiguous with the Santa Ana Mountains to the northeast. The Santa Ana Mountains are visible above the adjacent hills from the residential neighborhood to the south and from Vista Montana. The nearest residential use to the project site is approximately 350 feet south of the proposed two-story classroom building. Because of the distance to the existing residences, the proposed classroom building would not block private views of the Santa Ana Mountains or the surrounding hills; additionally, the project site sits at a lower elevation than the residences to the south. The proposed classroom building would also not block any public views to passerby along Vista Montana. Therefore, no impact on scenic vistas would occur and no mitigation measures are necessary.

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

No Impact. According to the California Scenic Highway Mapping System of the California Department of Transportation, the project site is not on or near a state-designated scenic highway (Caltrans 2011). The nearest designated state scenic highway to the site is State Route 91 (SR-91), approximately 26 miles to the north. Therefore, no impact on scenic resources along a state-designated scenic highway would occur and no mitigation measures are necessary.

c) Substantially degrade the existing visual character or quality of the site and its surroundings?

No Impact. Development of the two-story classroom building and the parking area and circulation improvements under the proposed project would not result in the degradation of the existing visual character or quality of the site and its surroundings. Figures 9, *Classroom Building Perspective*, and 10, *Classroom Building Elevations and Perspectives*, provide perspectives of the proposed classroom building and illustrate the conceptual building elevations and the proposed architectural style and elements of the building. As shown in Figures 9 and 10, the architectural style of the building is contemporary; the design of the proposed classroom building would be compatible with and complementary to the design of the other buildings on campus. The height and scale of the proposed classroom building would also be comparable with other buildings onsite. Considering the scale and palette of the existing campus context, the proposed classroom building would be designed to fit seamlessly within the context of the existing campus. Therefore, no impact would occur and no mitigation measures are necessary.

5. Environmental Analysis

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

Less Than Significant Impact. As shown in Figure 3, *Aerial Photograph*, the project site is developed with the campus of San Juan Hills High School, which consists of a number of buildings and structures, parking areas and drive aisles, and other site improvements associated with the school. Sources of nighttime light and glare exist within the confines of the project site, which are associated with lighting for the existing buildings (exterior and interior), pedestrian walkways, and parking areas. Additionally, other sources of light and glare exist in the project area; these sources include lights associated with the surrounding single-family residences and street lights along Vista Montana.

The proposed project would introduce exterior lighting for the proposed classroom building, as well as for the new parking areas and pedestrian walkways. These new sources of lighting have the potential to increase nighttime light and glare in the project area. However, the new light sources that would be introduced under the proposed project would be similar to those that currently occur throughout the campus. Additionally, as with the existing light sources on the campus, the lights associated with the proposed project would be directed toward the interior of the site so as not to create impacts to motorists on Vista Montana or on the residential uses to the south. All exterior lighting would be designed, arranged, installed, directed, shielded, and maintained in such a manner as to contain direct illumination onsite, thereby preventing excess illumination and light spillover onto adjoining land uses and/or roadways. Lighting would be installed to accommodate safety and security on the campus while minimizing impacts on surrounding land uses.

Therefore, project development would not result in the addition of a new source of substantial light or glare that would adversely affect day or nighttime views in the area. Impacts would be less than significant and no mitigation measures are necessary.

5.2 AGRICULTURE AND FORESTRY RESOURCES

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?

No Impact. The proposed project involves a number of site and building improvements to an existing high school in an urbanized area of the City. As shown in Figure 3, *Aerial Photograph*, the project site consists of a number of buildings and structures, parking areas and drive aisles, and other site improvements associated with the school. According to California Resource Agency's Department of Conservation online "California Important Farmland Finder", the project site is not designated as Farmland of Statewide Importance, Unique Farmland, or Farmland of Local Importance (CRADC 2016); the project is designated as Urban and Built-Up Land. Additionally, the project site and surrounding area are not currently used for agricultural purposes. Development of the proposed project would not convert farmland to nonagricultural use. Therefore, no impact to farmland would occur and no mitigation measures are necessary.

5. Environmental Analysis

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

No Impact. Per the City's zoning map, the project site is zoned PC (Planned Community) District. The site is not zoned for agricultural use, and project development would not conflict with such zoning. Williamson Act contracts restrict the use of privately owned land to agriculture and compatible open-space uses under contract with local governments; in exchange, the land is taxed based on actual use rather than potential market value. The project site is developed with the campus of San Juan Hills High School, and there is no Williamson Act contract in effect onsite. Therefore, no impact would occur and no mitigation measures are necessary.

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

No Impact. The project site is not designated or zoned for forest or timber land or used for forestry. As stated above, the project site is zoned PC (Planned Community) District and is developed with the campus of San Juan Hills High School. Additionally, the trees onsite to be removed are ornamental trees and are not cultivated for forest resources. Therefore, no impact would occur and no mitigation measures are necessary.

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

No Impact. See response to Section 5.2(c), above.

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

No Impact. See responses to Sections 5.2(a), (b), and (c), above.

5.3 AIR QUALITY

This section addresses the impacts of the proposed project on ambient air quality and the exposure of people, especially sensitive individuals, to unhealthful pollutant concentrations. A background discussion on the air quality regulatory setting, meteorological conditions, existing ambient air quality in the vicinity of the project site, and air quality modeling can be found in Appendix A.

The primary air pollutants of concern for which ambient air quality standards (AAQS) have been established are ozone (O₃), carbon monoxide (CO), coarse inhalable particulate matter (PM₁₀), fine inhalable particulate matter (PM_{2.5}), sulfur dioxide (SO₂), nitrogen dioxide (NO₂), and lead (Pb). Areas are classified under the federal and California Clean Air Act as either in attainment or nonattainment for each criteria pollutant based on whether the AAQS have been achieved. The South Coast Air Basin (SoCAB), which is managed by the South Coast Air Quality Management District (SCAQMD), is designated nonattainment for O₃, and PM_{2.5} under the California and National AAQS, nonattainment for PM₁₀ under the California AAQS, and nonattainment for lead (Los Angeles County only) under the National AAQS (CARB 2014a).

5. Environmental Analysis

Where available, the significance criteria established by the applicable air quality management or air pollution control district may be relied upon to make the following determinations.

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

Less Than Significant Impact. A consistency determination plays an important role in local agency project review by linking local planning and individual projects to the air quality management plan (AQMP). It fulfills the CEQA goal of informing decision makers of the environmental efforts of the project under consideration at an early enough stage to ensure that air quality concerns are fully addressed. It also provides the local agency with ongoing information as to whether they are contributing to clean air goals in the AQMP. The most recent adopted comprehensive plan is the 2012 AQMP, adopted on December 7, 2012 (see Appendix A to this Initial Study for a description of the 2012 AQMP).

Regional growth projections are used by SCAQMD to forecast future emission levels in the SoCAB. For southern California, these regional growth projections are provided by the Southern California Association of Governments (SCAG) and are partially based on land use designations in city/county general plans. Typically, only large, regionally significant projects have the potential to affect the regional growth projections. The proposed project is not considered a regionally significant project that would warrant Intergovernmental Review by SCAG under CEQA Guidelines section 15206.

The proposed project involves construction of a new classroom building at San Juan Hills High School. While the proposed project would result in an increase in students at the existing high school, the proposed project would not substantially affect the regional growth projections because the land use is consistent with the City of San Juan Capistrano's underlying General Plan land use designation. Additionally, the regional emissions generated by construction and operation of the proposed project would be less than the SCAQMD emissions thresholds, and SCAQMD would not consider the project a substantial source of air pollutant emissions that would have the potential to affect the attainment designations in the SoCAB. Therefore, the proposed project would not affect the regional emissions inventory or conflict with strategies in the AQMP. Impacts would be less than significant and no mitigation measures are necessary.

b) Violate any air quality standard or contribute substantially to an existing or projected air quality violation?

Less Than Significant Impact. The following describes project-related impacts from short-term construction activities and long-term operation of the proposed project.

Short-Term Air Quality Impacts

Construction activities would result in the generation of air pollutants. These emissions would primarily be 1) exhaust emissions from off-road diesel-powered construction equipment; 2) dust generated by grading, earthmoving, and other construction activities; 3) exhaust emissions from on-road vehicles and 4) off-gas emissions of volatile organic compounds (VOCs) from application of asphalt, paints, and coatings.

Construction activities would occur on approximately 3.25 acre of the 51-acre project site. Construction would involve asphalt demolition; site preparation; site grading; utility trenching; asphalt paving; construction

5. Environmental Analysis

of the new classroom building; and architectural coating. Construction activities would start in the summer of 2016 and would take approximately 12 months. Construction emissions were estimated using the California Emissions Estimator Model (CalEEMod), Version 2013.2.2, based on the project's preliminary construction schedule, phasing, and equipment list provided by the District. The construction schedule and equipment mix is based on preliminary engineering and is subject to changes during final design and as dictated by field conditions. Results of the construction emission modeling are shown in Table 1. As shown in the table, air pollutant emissions from construction-related activities would be less than their respective SCAQMD regional significance threshold values. Therefore, air quality impacts from project-related construction activities would be less than significant and no mitigation measures are necessary.

Table 1 Maximum Daily Regional Construction Emissions

| Source | Criteria Air Pollutants (lbs/day) ^{1,2} | | | | | |
|--|--|-----------------|-----|-----------------|------------------|-------------------|
| | VOC | NO _x | CO | SO ₂ | PM ₁₀ | PM _{2.5} |
| 2016 Asphalt Demolition + Asphalt Demo Debris Haul | 1 | 11 | 9 | <1 | 1 | 1 |
| 2016 Asphalt Demolition + Asphalt Demo Debris Haul + Site Preparation | 2 | 21 | 17 | <1 | 2 | 1 |
| 2016 Rough Grading + Utility Trenching + Asphalt Paving | 2 | 18 | 15 | <1 | 2 | 1 |
| 2016 Rough Grading + Utility Trenching + Asphalt Paving + Fine Grading | 3 | 25 | 21 | <1 | 2 | 2 |
| 2016 Utility Trenching + Asphalt Paving + Fine Grading | 2 | 18 | 15 | <1 | 2 | 1 |
| 2016 Building Construction | 2 | 22 | 17 | <1 | 2 | 1 |
| 2017 Building Construction | 2 | 20 | 17 | <1 | 2 | 1 |
| 2017 Building Construction + Finishing/Landscaping + Architectural Coating | 19 | 26 | 24 | <1 | 3 | 2 |
| Maximum Daily Emissions | 19 | 26 | 24 | <1 | 3 | 2 |
| SCAQMD Regional Threshold | 75 | 100 | 550 | 150 | 150 | 55 |
| Exceeds Regional Threshold? | No | No | No | No | No | No |

Source: CalEEMod version 2013.2.2.

Notes: Totals may not equal 100 percent due to rounding.

¹ The construction schedule is based on the preliminary information provided by the District. Where specific information regarding project-related construction activities was not available, construction assumptions were based on CalEEMod defaults, which are based on construction surveys conducted by SCAQMD of construction equipment and phasing for comparable projects.

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

Long-Term Operation-Related Air Quality Impact

Long-term air pollutant emissions generated by the project would be generated by area sources (e.g., landscape fuel use, aerosols, and architectural coatings), mobile sources from vehicle trips, and energy use (natural gas) associated with the proposed new classroom building. The primary source of long-term criteria air pollutant emissions generated by the proposed project would be emissions produced from project-generated vehicle trips. As noted in the traffic analysis of Section 5.16(a), below, the proposed project would generate a total of 1,197 average daily trips during a weekday. Criteria air pollutant emissions for the proposed

5. Environmental Analysis

project were modeled using CalEEMod. Table 2 identifies criteria air pollutant emissions from the proposed project. As shown in the table, project-related air pollutant emissions would not exceed the SCAQMD's regional emissions thresholds for operational activities. Overall, long-term operation-related impacts to air quality would be less than significant and no mitigation measures are necessary.

Table 2 Maximum Daily Regional Operational Phase Emissions

| Source | Criteria Air Pollutants (lbs/day) | | | | | |
|-----------------------------|-----------------------------------|-----------------|-----|-----------------|------------------|-------------------|
| | VOC | NO _x | CO | SO ₂ | PM ₁₀ | PM _{2.5} |
| Area | 3 | <1 | <1 | <1 | <1 | <1 |
| Energy | <1 | <1 | <1 | <1 | <1 | <1 |
| Mobile Sources | 3 | 3 | 24 | <1 | 5 | 1 |
| Total Emissions | 6 | 3 | 24 | <1 | 5 | 1 |
| SCAQMD Regional Threshold | 55 | 55 | 550 | 150 | 150 | 55 |
| Exceeds Regional Threshold? | No | No | No | No | No | No |

Source: CalEEMod Version 2013.2.2. Highest winter or summer emissions are reported. Totals may not total to 100 percent due to rounding.

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

Less Than Significant Impact. The SoCAB is designated nonattainment for O₃ and PM_{2.5} under the California and National AAQS, nonattainment for PM₁₀ under the California AAQS, and nonattainment for lead under the National AAQS (CARB 2014a). According to SCAQMD methodology, any project that does not exceed or can be mitigated to less than the daily threshold values would not add significantly to a cumulative impact (SCAQMD 1993). As demonstrated above, construction and operational activities would not result in emissions in excess of SCAQMD's significant thresholds. Therefore, the proposed project would not result in a cumulatively considerable net increase in criteria pollutants. Impacts would be less than significant and no mitigation measures are necessary.

- d) **Expose sensitive receptors to substantial pollutant concentrations?**

Less Than Significant Impact. The proposed project could expose sensitive receptors to elevated pollutant concentrations if it would cause or contribute significantly to elevated pollutant concentration levels. Unlike regional emissions, localized emissions are typically evaluated in terms of air concentration rather than mass so they can be more readily correlated to potential health effects.

Construction LSTs

Localized significance thresholds (LSTs) are based on the California AAQS, which are the most stringent AAQS that have been established to provide a margin of safety in the protection of public health and welfare. They are designated to protect sensitive receptors most susceptible to further respiratory distress, such as asthmatics, the elderly, very young children, people already weakened by other disease or illness, and people engaged in strenuous work or exercise. Construction LSTs are based on the size of the project site, distance

5. Environmental Analysis

to the nearest sensitive receptor, and Source Receptor Area. Receptors proximate to the proposed project site are the residences to the south.

Air pollutant emissions generated by construction activities are anticipated to cause temporary increases in air pollutant concentrations. Table 3 shows the maximum daily construction emissions (pounds per day) generated during onsite construction activities compared with the SCAQMD's LSTs. As shown in the table, construction activities would not exceed the LSTs. Therefore, localized impacts would be less than significant and no mitigation measures are necessary.

Table 3 Localized Construction Emissions

| Source | Pollutants (lbs/day) ^{1,2} | | | |
|--|-------------------------------------|--------------|------------------|-------------------|
| | NO _x | CO | PM ₁₀ | PM _{2.5} |
| 2016 Asphalt Demolition + Asphalt Demo Debris Haul | 10 | 7 | 0.98 | 0.71 |
| 2016 Building Construction | 20 | 12 | 1.24 | 1.17 |
| 2017 Building Construction | 18 | 11 | 1.12 | 1.05 |
| SCAQMD ≤1.00-acre LST | 92 | 776 | 8.09 | 3.58 |
| Exceeds LST? | No | No | No | No |
| 2016 Asphalt Demolition + Asphalt Demo Debris Haul + Site Preparation | 19 | 14 | 1.71 | 1.38 |
| 2017 Building Construction + Finishing/Landscaping + Architectural Coating | 24 | 17 | 1.57 | 1.48 |
| SCAQMD 2.00-acre LST | 129 | 1,130 | 13.02 | 5.17 |
| Exceeds LST? | No | No | No | No |
| 2016 Rough Grading + Utility Trenching + Asphalt Paving | 16 | 12 | 1.25 | 1.15 |
| 2016 Utility Trenching + Asphalt Paving + Fine Grading | 16 | 12 | 1.25 | 1.15 |
| SCAQMD 2.50-acre LST | 139 | 1,271 | 15.29 | 5.93 |
| Exceeds LST? | No | No | No | No |
| 2016 Rough Grading + Utility Trenching + Asphalt Paving + Fine Grading | 23 | 17 | 1.75 | 1.61 |
| SCAQMD 3.25-acre LST | 155 | 1,483 | 18.69 | 7.08 |
| Exceeds LST? | No | No | No | No |

Source: CalEEMod Version 2013.2.2. and SCAQMD 2008 & 2011.

Notes: In accordance with SCAQMD methodology, only onsite stationary sources and mobile equipment occurring on the proposed project site are included in the analysis. LSTs are based on receptors within 130 feet (40 meters) of the proposed project site in Source Receptor Area (SRA) 21.

¹ The construction schedule is based on the preliminary information provided by the District. Where specific information regarding project-related construction activities was not available, construction assumptions were based on CalEEMod defaults, which are based on construction surveys conducted by SCAQMD of construction equipment and phasing for comparable projects.

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

Operation LSTs

Operation of the proposed project would not generate substantial quantities of emission from onsite, stationary sources. Land uses that have the potential to generate substantial stationary sources of emissions that would require a permit from SCAQMD include industrial land uses, such as chemical processing and

5. Environmental Analysis

warehousing operations where substantial truck idling could occur onsite. The proposed project does not fall within these categories of uses. While operation of the proposed project would result in the use of standard onsite mechanical equipment such as heating, ventilation, and air conditioning units in addition to occasional use of landscaping equipment for project site maintenance, air pollutant emissions generated from these activities would be nominal (see Table 2, *Maximum Daily Regional Operational Phase Emissions*). Therefore, localized air quality impacts related to stationary-source emissions would be less than significant and no mitigation measures are necessary.

Carbon Monoxide Hotspots

Areas of vehicle congestion have the potential to create pockets of CO called hotspots. These pockets have the potential to exceed the state one-hour standard of 20 parts per million (ppm) or the eight-hour standard of 9.0 ppm. Because CO is produced in greatest quantities from vehicle combustion and does not readily disperse into the atmosphere, adherence to ambient air quality standards is typically demonstrated through an analysis of localized CO concentrations. Hotspots are typically produced at intersections, where traffic congestion is highest because vehicles queue for longer periods and are subject to reduced speeds.

The SoCAB has been designated attainment under both the national and California AAQS for CO. Under existing and future vehicle emission rates, a project would have to increase traffic volumes at a single intersection by more than 44,000 vehicles per hour—or 24,000 vehicles per hour where vertical and/or horizontal mixing is substantially limited—in order to generate a significant CO impact (BAAQMD 2011). The proposed project would result in approximately 1,197 average daily trips during a weekday, 301 trips during the morning peak hour, and 91 trips during the evening peak hour, which are substantially less than the volumes cited above. Furthermore, the SoCAB has since been designated as attainment under both the national and California AAQS for CO. The proposed project would not have the potential to substantially increase CO hotspots at intersections in the vicinity of the project site. Therefore, localized air quality impacts related to mobile-source emissions would be less than significant and no mitigation measures are necessary.

Health Risk Assessment

SCAQMD currently does not require health risk assessments to be conducted for short-term emissions from construction equipment. Emissions from construction equipment primarily consist of diesel particulate matter (DPM). The Office of Environmental Health Hazards Assessment (OEHHA) has recently adopted new guidance for the preparation of health risk assessments issued in March 2015. OEHHA has developed a cancer risk factor and non-cancer chronic reference exposure level for DPM, but these factors are based on continuous exposure over a 30-year time frame. No short-term acute exposure levels have been developed for DPM. The proposed project would be developed in approximately 12 months, which would limit the exposure to onsite and offsite receptors. SCAQMD currently does not require the evaluation of long-term excess cancer risk or chronic health impacts for a short-term project. In addition, construction activities would not exceed LST significance thresholds. For the reasons stated above, it is anticipated that construction emissions would not pose a threat to onsite and offsite receptors at or near the school, and project-related construction health impacts would be less than significant. No mitigation measures are necessary.

5. Environmental Analysis

e) Create objectionable odors affecting a substantial number of people?

Less Than Significant Impact. The proposed project would not result in objectionable odors. The threshold for odor is if a project creates an odor nuisance pursuant to SCAQMD Rule 402, Nuisance, which states:

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

The type of facilities that are considered to have objectionable odors include wastewater treatments plants, compost facilities, landfills, solid waste transfer stations, fiberglass manufacturing facilities, paint/coating operations (e.g., auto body shops), dairy farms, petroleum refineries, asphalt batch plants, chemical manufacturing, and food manufacturing facilities. The uses proposed by the project do not fall within the aforementioned land uses. Emissions from construction equipment, such as diesel exhaust and volatile organic compounds from architectural coatings and paving activities, may generate odors. However, these odors would be low in concentration, temporary, and are not expected to affect a substantial number of people. Therefore, odor impacts would be less than significant and no mitigation measures are necessary.

f) 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. There is a direct correlation between proximity to high traffic roadways and a variety of health effects. These effects are attributed to a high concentration of air pollutants generated by vehicle exhaust (CARB 2005). CARB recommends avoiding siting new sensitive land uses within “500 feet of a freeway, urban roads with 100,000 vehicles per day, or rural roads with 50,000 vehicles per day” to avoid exposing sensitive receptors to substantial concentration of air pollutants (CARB 2005). There are no freeways or busy traffic corridors near the project site. SR-74 is approximately one mile north of the project site, outside of the 500-foot buffer distance. Therefore, there would be no air quality health risk impacts from surrounding roadways to the students and staff and no mitigation measures are necessary.

5. Environmental Analysis

- g) **Would the project create an air quality hazard due to the placement of a school within one-quarter mile of: (a) permitted and nonpermitted 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?**

No Impact. There are no large agricultural operations, stationary sources, busy traffic corridors, and/or rail yards within a one quarter mile radius of the school site. Therefore, it is not anticipated that implementation of the proposed project would result in air quality hazard impacts to students and staff at the school. Therefore, no impact would occur and no mitigation measures are necessary.

5.4 BIOLOGICAL RESOURCES

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

No Impact. As shown in Figure 3, *Aerial Photograph*, the project site is developed with the campus of San Juan Hills High School. Vegetation throughout the campus, including the two areas of improvements under the proposed project, consists of ornamental trees, shrubs, and grass. There is no suitable habitat for sensitive species within the confines of the project site. Additionally, there are no candidate, sensitive or special status species on the project site. Therefore, no impact would occur and no mitigation measures are necessary.

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

No Impact. Sensitive natural communities are natural communities that are considered rare in the region by regulatory agencies; that are known to provide habitat for sensitive animal or plant species; or are known to be important wildlife corridors. Riparian habitats are those occurring along the banks of rivers and streams. As shown in Figure 3, the project site is developed with the campus of San Juan Hills High School. There are no riparian habitats or other sensitive natural community on or near the project site. Therefore, no impact would occur and no mitigation measures are necessary.

- c) **Have a substantial adverse effect on federally protected wetlands as defined by Section 404 of the Clean Water Act (including, but not limited to, marsh, vernal pool, coastal, etc.) through direct removal, filling, hydrological interruption, or other means?**

No Impact. Wetlands are defined under the federal Clean Water Act as land that is flooded or saturated by surface water or groundwater at a frequency and duration sufficient to support, and that normally does support, a prevalence of vegetation adapted to life in saturated soils. Wetlands include areas such as swamps, marshes, and bogs. As shown in Figure 3, the project site is developed with the campus of San Juan Hills

5. Environmental Analysis

High School; there are no wetlands present on or near the project site. Therefore, no impact would occur and no mitigation measures are necessary.

d) Interfere substantially with the movement of any native resident or migratory fish or wildlife species or with established native resident or migratory wildlife corridors, or impede the use of native wildlife nursery sites?

Less Than Significant Impact. The areas of improvement within the project site consist of parking lots, drive aisles, and other hardscape and landscape improvements associated with the campus of San Juan Hills High School. The overall project site is not available for overland wildlife movement. However, as part of the proposed project, a number of ornamental trees would be removed within the areas of improvement. The trees to be removed may provide suitable habitat, including nesting habitat, for migratory birds under the federal Migratory Bird Treaty Act (MBTA) and under Section 3513 et seq of the California Fish and Wildlife (CDFW) Code. CDFW Code 3513 provides protection to the birds listed under the MBTA, essentially all native birds. Additionally, Section 3503 of the CDFW Code makes it unlawful to take, possess, or needlessly destroy the nest or eggs of any bird. The MBTA implements the United States' commitment to four treaties with Canada, Japan, Mexico, and Russia for the protection of shared migratory bird resources. The MBTA governs the taking, killing, possession, transportation, and importation of migratory birds, their eggs, parts, and nests. Under the provisions of the MBTA, it is unlawful "by any means or manner to pursue, hunt, take, capture (or) kill" any migratory birds except as permitted by regulations issued by USFWS. The term "take" is defined by USFWS regulation to mean to "pursue, hunt, shoot, wound, kill, trap, capture or collect" any migratory bird or any part, nest or egg of any migratory bird covered by the conventions, or to attempt those activities. USFWS administers permits to take migratory birds in accordance with the MBTA.

The District would be required to comply with the MBTA by either avoiding site clearing, demolition or grading activities during the breeding/nesting season (February 1 to September 1, as defined by CDFW) or conducting a site survey for nesting birds prior to commencing such activities during the nesting season. Adherence to the MBTA regulations would ensure that if construction occurs during the breeding/nesting season, appropriate measures would be taken to avoid impacts to nesting birds, if any are found. With adherence to the MBTA requirements, impacts would be less than significant and no mitigation measures are necessary.

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

No Impact. Site clearance under the proposed project would involve the removal of a few ornamental trees from the proposed areas of improvement. Per Section 9-2.349 (Tree Removal Permit) of the City's Municipal Code, permits are required for tree removals from private properties by certain types of development projects. However, development within San Juan Hills High School is not subject to the provisions of the City's Municipal Code. Additionally, the trees to be removed are ornamental and none are species that are considered sensitive and protected by local ordinances. Therefore, no impact would occur and no mitigation measures are necessary.

5. Environmental Analysis

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

No Impact. The project site is within the plan area of the Orange County Southern Subregional Habitat Conservation Plan (HCP). However, the site, which is developed with the campus of San Juan Hills High School, does not contain suitable habitat for sensitive species and is not within a reserve established under the HCP. Therefore, project development would not conflict with the HCP. No impact would occur and not mitigation measures are necessary.

5.5 CULTURAL RESOURCES

a) Cause a substantial adverse change in the significance of a historical resource as defined in § 15064.5?

No Impact. Section 15064.5 defines historic resources as resources listed or determined to be eligible for listing by the State Historical Resources Commission, a local register of historical resources, or the lead agency. Project development does not involve the demolition of any buildings or structures. The proposed project involves the development of a new classroom building and parking and circulation improvements in an area of the project site that is currently development with parking area and circulation improvements, which would be demolished under the proposed project. Additionally, the campus improvements (including all buildings and structures) were completed between 2006 and 2007, making all improvements on the campus modern in nature and of no historical significance. Therefore, no impact to historical resources would occur and no mitigation measures are necessary.

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

Less Than Significant With Mitigation Incorporated. The proposed project involves the development of a new classroom building and parking and circulation improvements in an area of the project site that is currently development with parking area and circulation improvements, which would be demolished under the proposed project. As the areas of improvement have already been previously disturbed and developed, they have already been subject to similar construction and ground-disturbing activities associated with the proposed project. No archaeological or paleontological resources were identified during prior development of the project site, and it is unlikely that any such resources would be uncovered or affected during project-related grading and construction activities. Additionally, the potential for archeological or paleontological resources to be present in site soils that would be disturbed is lower than the potential would be on an undisturbed site. Furthermore, a recent site visit by PlaceWorks staff of the proposed area of improvements confirmed there was no “native soil” exposed. The area is fully built and all improvements are modern.

However, while unlikely, the presence of subsurface archaeological or paleontological resources in the proposed area of improvements remains possible and could be affected by ground-disturbing activities associated with grading and construction in this area of the campus. While much of the area appears to be developed with minimal subsurface disturbances (e.g. asphalt pavement for parking and circulation improvements), it is possible that subsurface disturbance might occur at levels not previously disturbed (e.g.,

5. Environmental Analysis

deeper excavation than previously performed in certain locations), or may uncover undiscovered archeological or paleontological resources at the site. The proposed area of improvements may still yield evidence of prehistoric archaeological resources. Additionally, Figure C-2 (Locations of Historic and Prehistoric Archeological Resources) of the City's General Plan Cultural Resources Element depicts the general location of areas within the City that potentially contain sensitive archeological resources; the project site appears to be within or abutting one of these areas.

Therefore, potential impacts to archeological and/or paleontological resources could occur as a result of project-related construction activities. However, with implementation of Mitigation Measure CUL-1, impacts to archeological and paleontological resources would be reduced to less than significant levels.

Mitigation Measures

CUL-1. Prior to the commencement of demolition and grading activities in the proposed area of improvements, the District shall establish an archaeological/paleontological monitoring program to adequately identify and accurately record any resource(s) identified during demolition and grading activities. The contracted archaeological/paleontological monitor shall cover:

- Demolition or relocation of any existing structures and pavements.
- Grading and excavations needed to prepare the project area for new development.
- All trenching for infrastructure and/or connections to existing infrastructure.
- Any areas identified as staging points that may be outside the actual project area boundaries (but still on the campus).

The archaeological monitoring program shall be completed using standard procedures and under the supervision of a trained supervisor meeting the Secretary of the Interior standards. If any prehistoric cultural resources are identified, a Native American representative shall be added to the monitoring program. The program shall include the preparation of a technical report documenting the program and its findings.

The paleontological monitoring program shall follow standard policies and include a trained monitor, a plan for the identification, recovery, and curation of the materials recovered (if any), and preparation of a technical report documenting the program and its findings.

c) Directly or indirectly destroy a unique paleontological resource or site or unique geologic feature?

No Impact. See response to Section 5.5(b), above.

5. Environmental Analysis

d) Disturb any human remains, including those interred outside of formal cemeteries?

Less than Significant Impact. There are no known human remains on or near the project site, and there are no cemeteries within the vicinity of the site. Additionally, the proposed areas of improvement have already been previously disturbed and developed; they have already been subject to similar construction and ground-disturbing activities associated with the proposed project. Therefore, the likelihood that human remains may be discovered during site clearing and grading activities is considered extremely low. However, development of the proposed classroom building would involve ground-disturbing activities that could have the potential to disturb previously undiscovered sub-surface human remains, if any exist. For example, the classroom building may involve deeper excavation than previously performed in this area of the project site.

In the unlikely event that human remains are uncovered during ground-disturbing activities, California Health and Safety Code Section 7050.5 requires that disturbance of the site shall remain halted until the Los Angeles Coroner has conducted an investigation into the circumstances, manner and cause of any death, and the recommendations concerning the treatment and disposition of the human remains have been made to the person responsible for the excavation or to his or her authorized representative, in the manner provided in Section 5097.98 of the Public Resources Code. The coroner is required to make a determination within two working days of notification of the discovery of the human remains. If the coroner determines that the remains are not subject to his or her authority or if the coroner recognizes or has reason to believe the human remains to be those of a Native American, he or she shall contact, by telephone within 24 hours, the Native American Heritage Commission.

Compliance with existing law regarding the discovery of human remains would reduce potential impacts to human remains to less than significant levels. No mitigation measures are necessary.

e) Would the project cause a substantial adverse change in the significance of a tribal cultural resource as defined in Public Resources Code 21074?

Less than Significant Impact. Assembly Bill 52 requires meaningful consultation with California Native American Tribes on potential impacts to Tribal Cultural Resources, as defined in Public Resources Code §21074. A tribe must submit a written request to the relevant lead agency if it wishes to be notified of projects within its traditionally and culturally affiliated area. The lead agency must provide written, formal notification to the tribes that have requested it within 14 days of determining that a project application is complete, or deciding to undertake a project. The tribe must respond to the lead agency within 30 days of receipt of the notification if it wishes to engage in consultation on the project, and the lead agency must bring the consultation process within 30 days of receiving the request for consultation. Consultation concludes when either 1): the parties agree to mitigation measures to avoid a significant effect, if one exists, on a tribal cultural resource, or 2) a party, acting in good faith and after reasonable effort, concludes that mutual agreement cannot be reached. AB 52 also addresses confidentiality during tribal consultation per Public Resources Code §21082.3(c).

5. Environmental Analysis

To date, the District (as lead agency) has not received any correspondence from Native American tribes requesting consultation under AB 52. Additionally, as concluded above in Section 5.5(b), potential impacts to archeological and/or paleontological resources as a result of project-related construction activities would be reduced to less than significant levels with implementation of Mitigation Measure CUL-1. Therefore, impacts to tribal cultural resource would be less than significant and no mitigation measures are necessary.

5.6 GEOLOGY AND SOILS

The analysis in this section is based partly on the following technical study, which is included as Appendix B to this Initial Study:

- Geotechnical Investigation, NMG Geotechnical, Inc. December 14, 2015.
- a) **Expose people or structures to 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.**

No Impact. The project site is not in or near an Alquist-Priolo Earthquake Fault Zone. The closest major active fault to the project site is the San Joaquin Hills Blind Thrust located approximately 6.3 miles west of the site (NMG 2015). The next closest active fault to the project site, as mapped by the California Geological Survey, is the Newport-Inglewood Rose Canyon Fault Zone, which is offshore approximately 15 miles to the southwest (CGS 2015). Additionally, based on available data, no faults (active, potentially active, or inactive) are beneath the project site or projecting toward the site. Due to the distance to these faults and the fact that there are no faults that cross or are in proximity of the project site, the potential for surface rupture of a fault to occur on the site is considered negligible. Therefore, development of the proposed project would not expose people or structures to substantial hazards arising from surface rupture of a known active fault. No impact would occur and no mitigation measures are necessary.

ii) **Strong seismic ground shaking?**

Less Than Significant Impact. The most significant geologic hazard to the design life of the proposed classroom building is the potential for moderate to strong ground shaking resulting from earthquakes generated on the faults within the seismically active southern California region. Given its location in this seismically active region, it is anticipated that the project site will periodically experience strong ground shaking as the result of earthquakes. As noted above, the nearest active faults to the project site are the San Joaquin Hills Blind Thrust (approximately 6.3 miles west of the site) and Newport Inglewood Rose Canyon Fault Zone (approximately 15 miles to the southwest of the site).

5. Environmental Analysis

However, the project site is not at greater risk of seismic activity or impacts than other sites in southern California. Seismic shaking is a risk throughout southern California. Additionally, the state regulates development in California through a variety of tools that reduce hazards from earthquakes and other geologic hazards. The California Building Code (CBC; California Code of Regulations, Title 24, Part 2) contains provisions to safeguard against major structural failures or loss of life caused by earthquakes or other geologic hazards. 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. Design and construction of the proposed classroom building would be required to adhere to the provisions of the CBC. Compliance with the requirements of the CBC for structural safety during a seismic event would reduce hazards from strong seismic ground shaking.

Additionally, seismic design parameters for the proposed project have been provided in the Geotechnical Investigation prepared for the proposed project (see Appendix B); the seismic design parameters are based on the most current (2013) CBC. The proposed classroom building and other project-related site improvements would be designed and constructed in compliance with the recommendations provided in the Geotechnical Investigation, which would help reduce any potential hazards from strong seismic ground shaking.

Therefore, compliance with the CBC and implementation of the recommendations of the Geotechnical Investigation would reduce impacts resulting from strong seismic ground shaking to less than significant levels. No mitigation measures are necessary.

iii) Seismic-related ground failure, including liquefaction?

Less Than Significant Impact. Other seismic-related ground failures are discussed in their respective sections: ground rupture (see Section 5.6(a)(i)) and landslides (see Section 5.6(a)(iv)).

Liquefaction refers to loose, saturated sand or silt deposits that behave as a liquid and lose their load-supporting capability when strongly shaken. Loose granular soils and silts that are saturated by relatively shallow groundwater are susceptible to liquefaction. The project site is not located within an area of potential liquefaction, as defined by the State's Seismic Hazard Mapping Act (CGS 2002). Additionally, as shown in Figure S-1 (Geologic Hazards) of the City's General Plan Safety Element, the project site is not within an area of potential liquefaction.

Furthermore, rock and sediment unsuitable for supporting the existing school buildings was removed during site grading for construction of the school campus and replaced with engineered fill (NMG 2015). As stated in the Geotechnical Investigation, the project site consists of 35 to 105 feet of engineered fill, placed in 2003-2004 under the geotechnical observations and testing of Leighton and Associates, with the upper few feet placed in 2005-2006 under the observation and testing of NMG Geotechnical, Inc. (NMG 2015). The engineered fill generally consists of dark brown to olive brown silty clay/clayey silts which are moist and stiff to very stiff.

5. Environmental Analysis

As concluded in the Geotechnical Investigation (see Appendix B), based on NMG's review of the groundwater conditions, the condition of the compacted fill, and the underlying bedrock conditions, the liquefaction potential at the site is considered nil.

Therefore, impacts resulting from liquefaction would be less than significant and no mitigation measures are necessary.

iv) Landslides?

Less than Significant Impact. Landslides are the downslope movement of geologic materials. Slope failures in the form of landslides are common during strong seismic shaking in areas of steep hills. The project site consists of landslide deposits (CMG 2015). Additionally, as shown in Figure S-1 (Geologic Hazards) of the City's General Plan Safety Element, the project site is in a slide-prone formation area.

However, rock and soil unsuitable for supporting the existing school buildings and other improvements were removed during grading for construction of the school campus. Specifically, as stated in the Geotechnical Investigation, landslide material considered unsuitable related to settlement or collapse was removed prior to placement of compacted fill (CMG 2015). Additionally, as stated in the Geotechnical Investigation, the potential for earthquake-induced landslides onsite is considered low to nil as a result of the rough grading that mitigated/butressed the prior landslides and removed the prior steep topography. Therefore, impacts related to landslides would be less than significant and no mitigation measures are necessary.

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

Less Than Significant Impact. Erosion is the movement of rock and soil from place to place, and is a natural process. Common agents of erosion in the project region include wind and flowing water. Significant erosion typically occurs on steep slopes where stormwater and high winds can carry topsoil down hillsides. Erosion can be increased greatly by earthmoving activities if erosion-control measures are not used. Following is a discussion of the potential erosion impacts resulting from the proposed project's construction and operational phases.

Construction Phase

Project development would involve excavation, grading, and construction activities that would disturb soil and leave exposed soil on the ground surface. Common means of soil erosion from construction sites include water, wind, and being tracked offsite by vehicles. These activities could result in soil erosion. However, project development is subject to local and state codes and requirements for erosion control and grading during construction. Project development is required to comply with standard regulations, including South Coast Air Quality Management District Rules 402 and 403, which would reduce construction erosion impacts. Rule 403 requires that fugitive dust be controlled with best available control measures so that the presence of such dust does not remain visible in the atmosphere beyond the property line of the emissions source. Rule 402 requires dust suppression techniques be implemented to prevent dust and soil erosion from creating a nuisance offsite.

5. Environmental Analysis

Additionally, the Construction General Permit (CGP) issued by the State Water Resources Control Board (SWRCB), effective July 17, 2012, regulates construction activities to minimize water pollution, including sediment. The proposed improvements at the project site would be subject to National Pollution Discharge Elimination System (NPDES) permitting regulations, including the development and implementation of a Stormwater Pollution Prevention Plan (SWPPP), which is further discussed in Section 5.9, *Hydrology and Water Quality*. The proposed project's construction contractor would be required to prepare and implement an SWPPP and associated BMPs in compliance with the CGP during grading and construction. Types of BMPs that are incorporated in SWPPPs are described in Table 4.

Table 4 Construction BMPs

| Category | Purpose | Examples |
|---|--|---|
| Erosion Controls and Wind Erosion Controls | Cover and/or bind soil surface, to prevent soil particles from being detached and transported by water or wind | Mulch, geotextiles, mats, hydroseeding, earth dikes, swales |
| Sediment Controls | Filter out soil particles that have been detached and transported in water. | Barriers such as straw bales, sandbags, fiber rolls, and gravel bag berms; desilting basin; cleaning measures such as street sweeping |
| Tracking Controls | Minimize the tracking of soil offsite by vehicles | Stabilized construction roadways and construction entrances/exits; entrance/outlet tire wash. |
| Non-Storm Water Management Controls | Prohibit discharge of materials other than stormwater, such as discharges from the cleaning, maintenance, and fueling of vehicles and equipment. Conduct various construction operations, including paving, grinding, and concrete curing and finishing, in ways that minimize non-stormwater discharges and contamination of any such discharges. | BMPs specifying methods for: paving and grinding operations; cleaning, fueling, and maintenance of vehicles and equipment; concrete curing; concrete finishing. |
| Waste Management and Controls (i.e., good housekeeping practices) | Management of materials and wastes to avoid contamination of stormwater. | Spill prevention and control, stockpile management, and management of solid wastes and hazardous wastes. |

Source: CASQA 2003.

Adherence to the BMPs to be specific in the SWPPP would reduce, prevent, or minimize soil erosion from project-related grading and construction activities. Therefore, soil erosion impacts from project-related grading and construction activities would not occur and soil erosion impacts would be less than significant. No mitigation measures are necessary.

Operational Phase

After project completion, the areas of improvement would be developed with a new classroom building, parking areas and drive aisles, and other hardscape and landscape improvements; there would be no areas of exposed soil. Upon project completion, the potential for soil erosion or the loss of topsoil is expected to be extremely low. Project operation would not result in substantial soil erosion. Therefore, impacts would be less than significant and no mitigation measures are necessary.

5. Environmental Analysis

- 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?**

Less Than Significant Impact. Hazards from liquefaction and lateral spreading are addressed above in Section 5.6(a)(iii), and landslide hazards are addressed above in Section 5.6(a)(iv).

Subsidence

The major cause of ground subsidence is withdrawal of groundwater. The project site is not above a groundwater basin; the San Juan Valley Groundwater Basin is approximately 0.8 mile northwest of the site (SWRCB 2016a). Additionally, groundwater was not encountered during NMG's recent investigation to depths of 21.5 feet, which was conducted as a part of the Geotechnical Investigation. Groundwater was encountered during the prior site grading within adjacent canyon bottoms at approximately 95 to 105 feet below existing ground surface (NMG 2015). Furthermore, the project site is already developed with similar buildings, which have not been subject to any occurrences of subsidence. Therefore, impacts related to subsidence would be less than significant and no mitigation measures are necessary.

Collapsible Soils

Rock and soil unsuitable for supporting the existing school buildings and other improvements were removed during grading for construction of the school campus. Specifically, as stated in the site-specific Geotechnical Investigation prepared for the proposed project (see Appendix B), soil material considered unsuitable related to settlement or collapse was removed prior to placement of compacted fill. Additionally, the Geotechnical Investigation contains recommendations for site preparation and grading for the proposed classroom building. The classroom building would be designed and constructed in compliance with the recommendations provided in the Geotechnical Investigation. Therefore, impacts related to collapsible soils would be less than significant and no mitigation measures are necessary.

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

Less Than Significant Impact. Expansive soils shrink or swell as the moisture content decreases or increases; the shrinking or swelling can shift, crack, or break structures built on such soils. As stated in the Geotechnical Investigation prepared for the proposed project (see Appendix B), most of the onsite material is of high expansion potential. However, recommendations have been provided in the Geotechnical Investigation for reducing hazards from expansive soils. Project development would comply with the recommendations of the Geotechnical Investigation and would not exacerbate hazards arising from expansive soils. Therefore, impacts related to expansive soils would be less than significant and no mitigation measures are necessary.

5. Environmental Analysis

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?

No Impact. Project development would include installation of sewer laterals connecting to existing sewer lines within the school campus. The proposed classroom building does not include the use of septic tanks or other alternative wastewater disposal systems. Therefore, no impact would occur and no mitigation measures are necessary.

5.7 GREENHOUSE GAS EMISSIONS

Scientists have concluded that human activities are contributing to global climate change by adding large amounts of heat-trapping gases, known as greenhouse gases (GHGs), into the atmosphere. The primary source of these GHG is fossil fuel use. The Intergovernmental Panel on Climate Change (IPCC) has identified four major GHGs—water vapor, carbon dioxide (CO₂), methane (CH₄), and ozone (O₃)—that are the likely cause of an increase in global average temperatures observed within the 20th and 21st centuries. Other GHG identified by the IPCC that contribute to global warming to a lesser extent include nitrous oxide (N₂O), sulfur hexafluoride (SF₆), hydro fluorocarbons, per fluorocarbons, and chlorofluorocarbons.^{1, 2}

This section analyzes the proposed project's contribution to global climate change impacts in California through an analysis of project-related GHG emissions. Information on manufacture of cement, steel, and other “life cycle” emissions that would occur as a result of the project are not applicable and are not included in the analysis.³ A background discussion on the GHG regulatory setting and GHG modeling can be found in Appendix A.

Where available, the significance criteria established by the applicable air quality management or air pollution control district may be relied upon to make the following determinations.

¹ Water vapor (H₂O) is the strongest GHG and the most variable in its phases (vapor, cloud droplets, ice crystals). However, water vapor is not considered a pollutant, but part of the feedback loop rather than a primary cause of change.

² Black carbon contributes to climate change both directly, by absorbing sunlight, and indirectly, by depositing on snow (making it melt faster) and by interacting with clouds and affecting cloud formation. Black carbon is the most strongly light-absorbing component of PM emitted from burning fuels. Reducing black carbon emissions globally can have immediate economic, climate, and public health benefits. California has been an international leader in reducing emissions of black carbon, with close to 95 percent control expected by 2020 due to existing programs that target reducing PM from diesel engines and burning activities (CARB 2014b). However, state and national GHG inventories do not yet include black carbon due to ongoing work resolving the precise global warming potential of black carbon. Guidance for CEQA documents does not yet include black carbon.

³ Life cycle emissions include indirect emissions associated with materials manufacture. However, these indirect emissions involve numerous parties, each of which is responsible for GHG emissions of their particular activity. The California Resources Agency, in adopting the CEQA Guidelines Amendments on GHG emissions found that lifecycle analyses was not warranted for project-specific CEQA analysis in most situations, for a variety of reasons, including lack of control over some sources, and the possibility of double-counting emissions (see Final Statement of Reasons for Regulatory Action, December 2009). Because the amount of materials consumed during the operation or construction of the proposed project is not known, the origin of the raw materials purchased is not known, and manufacturing information for those raw materials are also not known, calculation of life cycle emissions would be speculative. A life-cycle analysis is not warranted (OPR 2008).

5. Environmental Analysis

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

Less Than Significant Impact. Global climate change is not confined to a particular project area and is generally accepted as the consequence of global industrialization over the last 200 years. A typical project, even a very large one, does not generate enough greenhouse gas emissions on its own to influence global climate change significantly; hence, the issue of global climate change is, by definition, a cumulative environmental impact.

The proposed project would generate GHG emissions from vehicle trips generated by the project, energy use (indirectly from purchased electricity use and directly through fuel consumed for building heating) and area sources (e.g., equipment used on-site, consumer products, coatings), water/wastewater generation, and waste disposal. Annual GHG emissions were calculated for construction and operation of the project. Annual average construction emissions were amortized over 30 years and included in the emissions inventory to account for GHG emissions from the construction phase of the project. Project-related GHG emissions are shown in Table 5. As shown in the table, the proposed project at buildout would generate 807 metric tons of carbon dioxide-equivalent (MTCO_{2e}) emissions per year. The total net increase of GHG emissions onsite from the proposed project would not exceed the SCAQMD's bright-line threshold of 3,000 MTCO_{2e},⁴ and the project's cumulative contribution to GHG emissions is less than significant. No mitigation measures are necessary.

Table 5 Project-Related GHG Emissions

| Source | MTCO _{2e} /year | Percent of Project Total |
|---|--------------------------|--------------------------|
| Area | <1 | <1% |
| Energy ¹ | 95 | 12% |
| Mobile | 604 | 75% |
| Waste | 58 | 7% |
| Water | 39 | 5% |
| Amortized Construction Emissions ² | 10 | 1% |
| Total Emissions | 807 | 100% |
| SCAQMD's Bright-Line Threshold | 3,000 | NA |
| Exceeds Bright-Line Threshold | No | NA |

Source: CalEEMod Version 2013.2.2.

Notes: Percent changes from each source may not total to 100 percent due to rounding. MTCO_{2e} = metric tons of carbon dioxide-equivalent

¹ Assumes implementation of the 2013 California Green Building Standards Code (CALGreen) and 2013 Building and Energy Efficiency Standards. The 2013 Building and Energy Efficiency Standards are 30 percent more energy efficient than the 2008 Standards for non-residential buildings and 25 percent more energy efficient for residential buildings than the 2008 Standards. Additionally, implementation of the SDG&E's Savings by Design program, which is 10 percent more energy efficient relative to the 2013 Building and Energy Efficiency Standards, is also assumed for the proposed project. Overall, modeling assumes all structures onsite would be 37 percent more energy-efficient than the 2008 building code for non-residential structures.

² Construction emissions are amortized over a 30-year project lifetime per recommended SCAQMD methodology.

⁴ This threshold is based on a combined threshold of 3,000 MTCO_{2e} for all land use types, proposed by SCAQMD's Working Group based on a survey of the GHG emissions inventory of CEQA projects. Approximately 90 percent of CEQA projects' GHG emissions inventories exceed 3,000 MTCO_{2e}, which is based on a potential threshold approach cited in CAPCOA's white paper, "CEQA and Climate Change."

5. Environmental Analysis

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

No Impact. The California Air Resources Board's (CARB's) Scoping Plan is California's GHG reduction strategy to achieve the state's GHG emissions reduction target established by Assembly Bill (AB) 32, which is to return to 1990 emission levels by year 2020. To estimate the reductions necessary, CARB projected statewide 2020 business-as-usual (BAU) GHG emissions and identified that the state as a whole would need to reduce GHG emissions by 28.5 percent from year 2020 BAU to achieve the target of AB 32 (CARB 2008). The GHG emissions forecast was updated as part of the First Update to the Scoping Plan. In the First Update to the Scoping Plan, CARB projected that statewide BAU emissions in 2020 would be approximately 509 million MTCO_{2e}.⁵ Therefore, to achieve the AB 32 target of 431 million MTCO_{2e} (i.e., 1990 emissions levels) by 2020, the state would need to reduce emissions by 78 million MTCO_{2e} compared to BAU conditions, a reduction of 15.3 percent from BAU in 2020 (CARB 2014b).^{6, 7}

Statewide strategies to reduce GHG emissions include the Low Carbon Fuel Standard (LCFS), California Appliance Energy Efficiency regulations, California Renewable Energy Portfolio standard, changes in the Corporate Average Fuel Economy (CAFE) standards, and other early action measures as necessary to ensure the state is on target to achieve the GHG emissions reduction goals of AB 32. Also, new buildings are required to comply with the 2013 Building and Energy Efficiency Standards and 2013 California Green Building Code (CALGreen). In addition, the proposed classroom building would be designed in accordance with SDG&E's Savings By Design program. The program encourages high-performance and energy-efficient, non-residential building design and construction. Under the Savings by Design program, the proposed project would be 10 percent more efficient than the required 2013 California Building and Energy Efficiency Standards. The proposed project's GHG emissions would be reduced from compliance with statewide measures that have been adopted since AB 32 was adopted.

In addition to AB 32, the California legislature passed Senate Bill (SB) 375 to connect regional transportation planning to land use decisions made at a local level. SB 375 requires the metropolitan planning organizations to prepare a Sustainable Communities Strategy (SCS) in their regional transportation plans to achieve the per capita GHG reduction targets. For the Southern California Association of Governments (SCAG) region, the SCS was adopted in April 2012 (SCAG 2012) and SCAG is currently updating the SCS. The SCS does not require that local general plans, specific plans, or zoning be consistent with the SCS, but provides incentives for consistency for governments and developers. The proposed project is consistent with the underlying General Plan land use designation and would not interfere with SCAG's ability to implement the regional strategies outlined in the Regional Transportation Plan/Sustainable Communities Strategy (RTP/SCS).

Therefore, no impact would occur and no mitigation measures are necessary.

⁵ The BAU forecast includes GHG reductions from Pavley and the 33% Renewable Portfolio Standard (RPS).

⁶ If the GHG emissions reductions from Pavley I and the Renewable Electricity Standard are accounted for as part of the BAU scenario (30 million MTCO_{2e} total), then the State would need to reduce emissions by 108 million MTCO_{2e}, which is a 20 percent reduction from BAU.

⁷ In May 2014, CARB completed a five year update to the 2008 Scoping Plan. CARB recalculated the 1990 GHG emission levels with the updated global warming potential (GWP) in the Intergovernmental Panel on Climate Change's Fourth Assessment Report, and the 427 MMTCO_{2e} 1990 emissions level and 2020 GHG emissions limit, established in response to AB 32, is slightly higher, at 431 MMTCO_{2e} (CARB 2014b).

5. Environmental Analysis

5.8 HAZARDS AND HAZARDOUS MATERIALS

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

Less Than Significant Impact. Project-related construction activities would not require or involve extensive or ongoing use of acutely hazardous materials or substances. While grading and construction may involve activities requiring the transport, storage, use, or disposal of some hazardous materials, such as onsite fueling or servicing of construction equipment, the activities would be short term and would be subject to federal, state, and local health and safety requirements.

The types of hazardous materials associated with project operation would generally be limited to maintenance, janitorial, and repair activities, such as commercial cleansers, lubricants, paints, etc. All hazardous materials used at the campus would be stored, handled, and disposed of in compliance with regulations of the Environmental Protection Agency (EPA), Occupational Safety and Health Administration, and Orange County Environmental Health.⁸ The requirements of these agencies would be incorporated into the design and operation of the proposed project. For example, this would include providing for and maintaining appropriate storage areas for hazardous materials and installing or affixing appropriate warning signs and labels.

Compliance with applicable health and safety requirements, including manufacturers' product labels, would ensure that no significant hazard to the public, students, or environment would result through the routine transport, use, or disposal of hazardous materials during the project construction and operational phases. Therefore, impacts would be less than significant and no mitigation measures are necessary.

- b) **Create a significant hazard to the public or the environment through reasonably foreseeable upset and accident conditions involving the release of hazardous materials into the environment?**

Less Than Significant Impact. The use, handling, storage, and disposal of hazardous materials in the course of project construction and operation would not cause substantial hazards to the public or the environment from accidental release of hazardous materials. Compliance with regulations described above in Section 5.8(a) would include training construction workers and school staff on containing and cleaning up hazardous materials spills that such personnel could safely contain and clean; maintenance of hazardous materials spill containment and cleanup supplies onsite; implementing school evacuation procedures as needed; and contacting the appropriate hazardous materials emergency response agency immediately pursuant to requirements of regulatory agencies. Therefore, impacts would be less than significant and no mitigation measures are necessary.

⁸ Orange County Environmental Health is the Certified Unified Program Agency (CUPA) for Orange County; the Certified Unified Program coordinates and makes consistent enforcement of several state and local laws governing hazardous materials.

5. Environmental Analysis

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

Less than Significant Impact. Project construction and operation would not cause substantial hazards to persons on campus for the reasons stated above in Section 5.8(a). Therefore, impacts would be less than significant and no mitigation measures are necessary.

- d) **Be located on a site which is included on a list of hazardous materials sites compiled pursuant to Government Code Section 65962.5 and, as a result, would it create a significant hazard to the public or the environment?**

Less than Significant Impact. California Government Code Section 65962.5 requires the compiling of lists of the following types of hazardous materials sites: hazardous waste facilities subject to corrective action; hazardous waste discharges for which the State Water Quality Control Board has issued certain types of orders; public drinking water wells containing detectable levels of organic contaminants; underground storage tanks with reported unauthorized releases; and solid waste disposal facilities from which hazardous waste has migrated.

The Department of Toxic Substances Control (DTSC) reviewed the Phase I Environmental Site Assessment (Phase I ESA) dated August 28, 2002 and prepared by NMG Geotechnical, Incorporated, for development of the existing school. DTSC received the Phase I from the District on January 17, 2003. Based on the information provided in the Phase I ESA and a site visit conducted by DTSC on February 5, 2003, neither a release of hazardous material nor the presence of a naturally occurring hazardous material, which would pose a threat to human health or the environment under any land use, was indicated at the school site. Therefore, DTSC concurred with the conclusion of the Phase I ESA that no further environmental investigation was required and thereby approved the Phase I ESA on February 21, 2003 (DTSC 2003). In addition to approval of the Phase I ESA, DTSC issued the District a No Further Action.

Furthermore, the following databases of hazardous materials sites were searched for listings of hazardous materials on or within 0.25 mile of the project site: Geotracker, State Water Resources Control Board (SWRCB 2016b); EnviroStor, Department of Toxic Substances Control (DTSC 2016); and EnviroMapper, US Environmental Protection Agency (USEPA 2016). The project site was not listed on any of the environmental databases searched. One listing within 0.25 mile of the project site was identified: the La Pata Avenue Greenwaste Facility off of La Pata Avenue, south of the project site. The green waste facility accepts agricultural waste, construction and demolition debris, and wood waste (CalRecycle 2016a); the facility is not one of the types of hazardous materials sites specified in Government Code Section 65962.5. Project development would not create substantial hazards related to the facility.

Based on the preceding, impacts would be less than significant and no mitigation measures are necessary.

5. Environmental Analysis

- 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?**

No Impact. There are no public-use airports within two miles of the project site. Project development would not cause hazards related to aircraft safety hazards. Therefore, no impact would occur and no mitigation measures are necessary.

- f) **For a project within the vicinity of a private airstrip, would the project result in a safety hazard for people residing or working in the project area?**

No Impact. There are no heliports or other private air strips in the City of San Juan Capistrano, and none near enough to the project site such that project development would cause hazards to people onsite from helicopters approaching or departing a heliport. Therefore, no impact would occur and no mitigation measures are necessary.

- g) **Impair implementation of or physically interfere with an adopted emergency response plan or emergency evacuation plan?**

No Impact. The local emergency response plan in effect is the Orange County Emergency Plan, which is developed and maintained by the Emergency Management Division of the Orange County Sheriff's Department. Project construction and operation would not block roadways or otherwise impair emergency access to surrounding land uses. All construction staging and activities would occur onsite. Additionally, public schools are built to more rigorous building and safety standards than are many other types of buildings; and schools are therefore often used as evacuation centers during disaster responses. Therefore, no impact would occur and no mitigation measures are necessary.

- h) **Expose people or structures to a significant risk of loss, injury or death involving wildland fires, including where wildlands are adjacent to urbanized areas or where residences are intermixed with wildlands?**

Less Than Significant Impact. The project site is not in a fire hazard severity zone, as mapped by the California Department of Forestry and Fire Prevention (CAL FIRE 2011). Additionally, per Figure S-5 (Very High Fire Hazard Areas) of the City's General Plan Safety Element, the project site is not within a very high fire hazard severity zone. Therefore, project development would not subject people or structures to wildfire hazards. Impacts would be less than significant and no mitigation measures are necessary.

- i) **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. The project site is developed with the campus of San Juan Hills High School. There are no chemical pipelines within a 1,500-foot radius, according to the National Pipeline Mapping System online mapping database (NPMS 2016). Additionally, no underground or aboveground pipelines carrying hazardous

5. Environmental Analysis

materials or hazardous wastes were identified on or in proximity of the project site during development of the existing campus and none exist today. Therefore, no impact would occur and no mitigation measures are necessary.

j) 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. The project site does not contain a current or former hazardous waste disposal site or solid waste disposal site; the site is developed with the campus of San Juan Hills High School. Therefore, no impact would occur and no mitigation measures are necessary.

k) 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. No hazardous substance release sites were identified on the project site in the database search described above in Section 5.8(d). Therefore, no impact would occur and no mitigation measures are necessary.

5.9 HYDROLOGY AND WATER QUALITY

a) Violate any water quality standards or waste discharge requirements?

Less Than Significant Impact.

Construction Phase

Project development would include preparation and implementation of an SWPPP and implementation of BMPs outlined in the SWPPP (see Section 5.6(b) above for description). Implementation of the BMPs would reduce impacts of project construction on stormwater quality. Therefore, construction-related impacts would be less than significant and no mitigation measures are necessary.

Operation Phase

Regulations on waste discharges to storm drains are set forth in the Municipal Stormwater Permit for the San Diego Region, Order No. R9-2013-0001 issued by the San Diego Regional Water Quality Control Board (SDRWQCB) in 2013. The District would prepare and implement a water quality management plan (WQMP) identifying BMPs that would be included in the project design and installed during project construction to minimize stormwater pollution. Low-impact development (LID) BMPs are required as part of the project. LID BMPs maximize infiltration, provide retention, slow runoff, minimize impervious footprint, direct runoff from impervious areas into landscaping, and construct impervious surfaces to minimum widths necessary. There are many practices that have been used to adhere to these principles such as bioretention facilities, rain gardens, vegetated rooftops, rain barrels, and permeable pavements. The proposed project's WQMP would specify BMPs in two other categories.

5. Environmental Analysis

- **Source Control BMPs** reduce the potential for pollutants to enter runoff. Source control BMPs are divided into two types:
 - Structural source control BMPs are included in the design of projects and include roof runoff controls, protection of slopes and channels, efficient irrigation, and storm drain system signage.
 - Nonstructural source control BMPs consist of activity restrictions, such as requiring that trash can lids be closed at all times and prohibiting outdoor cooking; education of school staff; and periodic inspections and maintenance of water quality features such as catch basins and filters.
- **Treatment Control BMPs** remove pollutants from contaminated stormwater before the water is discharged offsite. Treatment control BMPs include filters and biofiltration through constructed project landscape elements such as bioswales, infiltration trenches, and/or infiltration basins.

Project operation would comply with the water quality requirements set forth by SDRWQCB through preparation of a WQMP. Implementation of the BMPs in the WQMP would reduce impacts of project operation on stormwater quality. Therefore, operational-related impacts would be less than significant and no mitigation measures are necessary.

- b) **Substantially deplete groundwater supplies or interfere substantially with groundwater recharge such that there would be a net deficit in aquifer volume or a lowering of the local groundwater table level (e.g., the production rate of pre-existing nearby wells would drop to a level which would not support existing land uses or planned uses for which permits have been granted)?**

Less than Significant Impact. The project site is not over or near a groundwater recharge basin and is not used for intentional groundwater recharge; the site is developed with the campus of San Juan Hills High School. The nearest groundwater recharge basin is the San Juan Valley Groundwater Basin approximately 0.8 mile northwest of the site (SWRCB 2016a). Groundwater recharge within this basin occurs quite a ways from the project site. Therefore, the proposed project would not substantially interfere with groundwater supplies or groundwater recharge. Impacts would be less than significant and no mitigation measures are necessary.

Impacts to groundwater supplies are further discussed in Section 5.7(d), below.

- c) **Substantially alter the existing drainage pattern of the site or area, including through the alteration of the course of a stream or river, in a manner which would result in a substantial erosion or siltation on- or off-site.**

No Impact. Erosion and siltation impacts potentially resulting from the proposed project would, for the most part, occur during the project's sites preparation and grading phase. However, there is also a potential for erosion and siltation to occur during project operation. Following is a discussion of the potential impacts that could occur during the construction and operation phases of the proposed project.

5. Environmental Analysis

Project Construction

As discussed above in Section 5.9(a), the District would prepare and implement an SWPPP during grading and construction activities. The SWPPP would specify BMPs the District would implement prior to and during grading and construction to minimize erosion and siltation impacts on- and offsite. For example, BMPs would include but are not limited to: installation of perimeter silt fences, installation of silt fences around stockpile and covering of stockpiles, and stabilization of disturbed areas where construction ceases for a determined period of time (e.g., one week) with erosion controls. Adherence to the BMPs in the SWPPP would reduce, prevent, or minimize soil erosion from project-related grading and construction activities. Therefore, construction-related impacts would be less than significant and no mitigation measures are necessary.

Project Operation

Project development would not alter the existing drainage pattern on the school campus. The project would include installation of a storm drain from the edge of the proposed classroom building to a storm drain connection on the property line of the school. At project completion, the areas of improvement would consist of a classroom building, parking lots, driveways, and landscaped areas. There would be no areas of bare or disturbed soil onsite that would be vulnerable to erosion or siltation. All areas would either be paved or landscaped. Therefore, development of the proposed project would not substantially alter the existing drainage pattern of the project site or area in a manner that would result in substantial erosion or siltation on- or offsite. Operation-related impacts would be less than significant and no mitigation measures are necessary.

d) Substantially alter the existing drainage pattern of the site or area, including through the alteration of the course of a stream or river, or substantially increase the rate or amount of surface runoff in a manner which would result in flooding on- or off-site?

No Impact. Project development would not alter the existing drainage pattern on the school campus. Project development would include installation of an onsite drainage system connecting to a storm drain at the property line of the school, as described above in Section 5.9(c). Additionally, the project site and surrounding area have already been planned and engineered to accommodate stormwater runoff. Therefore, project development would not substantially alter the existing drainage pattern of the site or substantially increase the rate or amount of surface runoff in a manner which would result in flooding on- or off-site. Impacts would be less than significant and no mitigation measures are necessary.

e) Create or contribute runoff water which would exceed the capacity of existing or planned storm water drainage systems or provide substantial additional sources of polluted runoff?

Less Than Significant Impact. The project site and surrounding area have been planned and engineered to accommodate stormwater runoff. Additionally, the proposed project would include the installation of LID BMPs that would minimize runoff from the site through a variety of measures such as minimizing impervious areas. Therefore, runoff from the proposed areas of improvement would not exceed the capacity of proposed onsite or existing offsite drainage facilities. Impacts would be less than significant and no mitigation measures are necessary.

5. Environmental Analysis

f) Otherwise substantially degrade water quality?

Less Than Significant Impact. Water quality impacts would be less than significant, as substantiated above in Section 5.9(a).

g) Place housing within a 100-year flood hazard area as mapped on a federal Flood Hazard Boundary or Flood Insurance Rate Map or other flood hazard delineation map?

No Impact. The project site is not located within a 100-year flood zone as indicated on the Federal Emergency Management Agency Flood Insurance Rate Map (FIRM) Number 06073C0025F (effective May 16, 2012) covering the project site and surrounding area (FEMA 2016). Additionally, the proposed project does not include the development of housing. Therefore, no impact would occur and no mitigation measures are necessary.

h) Place within a 100-year flood hazard area structures which would impede or redirect flood flows?

No Impact. As noted above, the project site is outside of a 100-year flood zone (FEMA 2016). Development of the proposed project would not impede or redirect flood flows. Therefore, no impact would occur and no mitigation measures are necessary.

i) Expose people or structures to a significant risk of loss, injury or death involving flooding, including flooding as a result of the failure of a levee or dam?

No Impact. As shown in Figure S-4 (Dam Inundation Areas) of the City's General Plan Safety Element, the project site is not within the dam inundation area of the Trampas Canyon Dam. Additionally, the project site is not in an area mapped as protected from 100-year floods by levees. Therefore, no impact would occur and no mitigation measures are necessary.

j) Inundation by seiche, tsunami, or mudflow?

No Impact. The following describes potential impacts to people and structures from seiches, tsunamis, and mudflows. As demonstrated below, the proposed project would not expose people or structures to inundation by seiche, tsunami, or mudflow.

Seiche

A seiche is a surface wave created when an inland water body is shaken, usually by an earthquake. Seiches are of concern relative to water storage facilities because inundation from a seiche can occur if the wave overflows a containment wall, such as the wall of a reservoir, water storage tank, dam or other artificial body of water. There are no water storage facilities or bodies of water on or near the project site that could pose a flood hazard to the site due to a seiche or failure of an aboveground reservoir. Therefore, impacts from a seiche would not occur and no mitigation measures are necessary.

5. Environmental Analysis

Tsunami

A tsunami is a series of ocean waves caused by a sudden displacement of the ocean floor, most often due to earthquakes. The project site elevation ranges from approximately 370 to 385 feet above mean sea level and is approximately four miles inland from the Pacific Ocean. Therefore, impacts from a tsunami would not occur and no mitigation measures are necessary.

Mudflow

A mudflow is a landslide composed of saturated rock debris and soil with a consistency of wet cement. An upslope next to the west campus boundary is vacant but has been engineered with terrace drains and thus is unlikely to generate substantial mudflows.⁹ There are no slopes on or next to the project site that could generate a mudflow. Therefore, impacts from a mudflow would not occur and no mitigation measures are necessary.

5.10 LAND USE AND PLANNING

a) Physically divide an established community?

No Impact. The project site is surrounded by residential uses and open space to the south, across Vista Montana Avenue, and open space to the west, north and east (see Figure 3, *Aerial Photograph*). While there is an established residential community to the south, development of the proposed project would not physically divide the community. All improvements under the proposed project would occur within the confines of the project site and no roadways or other infrastructure improvements that would bisect or transect the existing residential community would be introduced. Additionally, access to the residential community would not be interrupted as a result of the project development, as residents of the community do not have to cross the site to access their community. Therefore, the proposed project would not create any land use barriers or otherwise divide or disrupt the physical arrangement of the existing residential community. No impacts would occur and no mitigation measures are necessary.

b) Conflict with any applicable land use plan, policy, or regulation of an agency with jurisdiction over the project (including, but not limited to the general plan, specific plan, local coastal program, or zoning ordinance) adopted for the purpose of avoiding or mitigating an environmental effect?

No Impact. Per the City's zoning map, the project site is zoned PC (Planned Community) District. The City's General Plan land use map designates the project site as Planned Community. The proposed campus improvements are consistent with the PC District zoning designation of the project site, which permits institutional uses subject to the City approval of a Comprehensive Development Plan (CDP). Specifically, the proposed improvements are covered under the existing and adopted CDP that covers the project site (CDP 04-01 for Whispering Hills Planned Community, as adopted by Ordinance No. 896 on August 3, 2004), which permitted development of the high school campus back in 2007. The proposed improvements would also be consistent with those existing throughout the school campus. Project implementation would not lead to a

⁹ Terrace drains are V-shaped ditches that extend approximately horizontally across a slope.

5. Environmental Analysis

change of existing land uses or require a change of the existing land use or zoning designations or regulations. Therefore, no land use impacts would occur and no mitigation measures are necessary.

c) Conflict with any applicable habitat conservation plan or natural community conservation plan?

No Impact. The project site is within the plan area of the Orange County Southern Subregional Habitat Conservation Plan (HCP). However, the site, which is developed with the campus of San Juan Hills High School, does not contain suitable habitat for sensitive species and is not within a reserve established under the HCP. Therefore, project development would not conflict with the HCP. No impact would occur and no mitigation measures are necessary.

5.11 MINERAL RESOURCES

a) Result in the loss of availability of a known mineral resource that would be a value to the region and the residents of the state?

No Impact. The project site is mapped as Mineral Resource Zone 1 (MRZ-1) by the California Geological Survey, indicating that it is in an area where no significant mineral deposits are present, or where it is judged that such deposits are unlikely to be present (CGS 1994). There are no active mines on or next to the project site; the nearest active mine to the site is Carmeuse Industrial Sands about 1.8 miles to the east (OMR 2016). Additionally, the project site is not in a Mineral Resource Area; the nearest such area to the site is approximately 1.5 miles to the northeast within the San Juan Creek area (OCPW 2012). Furthermore, the project site is developed with the campus of San Juan Hills High School and is not available for mining. Therefore, project development would not cause a loss of availability of a known mineral resource valuable to the region and the state or a loss of availability of a mineral resource recovery site. No impact would occur and no mitigation measures are necessary.

b) Result in the loss of availability of a locally important mineral resource recovery site delineated on a local general plan, specific plan or other land use plan?

No Impact. See response to Section 5.11(a), above.

5.12 NOISE

Noise Descriptors

Noise is most often defined as unwanted sound. Although sound can be easily measured, the perception of noise and the physical response to sound complicate the analysis of its impact on people. People judge the relative magnitude of sound sensation in subjective terms such as “noisiness” or “loudness.”

The following are brief definitions of terminology used in this section:

- **Sound.** A disturbance created by a vibrating object, which, when transmitted by pressure waves through a medium such as air, is capable of being detected by a receiving mechanism, such as the human ear or a microphone.

5. Environmental Analysis

- **Noise.** Sound that is loud, unpleasant, unexpected, or otherwise undesirable.
- **Decibel (dB).** A unitless measure of sound on a logarithmic scale.
- **A-Weighted Decibel (dBA).** An overall frequency-weighted sound level in decibels that approximates the frequency response of the human ear.
- **Equivalent Continuous Noise Level (Leq).** The mean of the noise level, energy averaged over the measurement period.
- **Community Noise Equivalent Level (CNEL).** The energy average of the A-weighted sound levels occurring during a 24-hour period, with 5 dB added from 7:00 PM to 10:00 PM and 10 dB from 10:00 PM to 7:00 AM.

With respect to projected increases, noise impacts can be broken down into three categories. The first is “audible” impacts, which refer to increases in noise level that are perceptible to humans. Audible increases in general community noise levels generally refer to a change of 3 dB or more since this level has been found to be the threshold of perceptibility in exterior environments. The second category, “potentially audible” impacts, refers to a change in noise level between 1 and 3 dB. This range of noise levels was found to be noticeable to sensitive people in laboratory environments. The last category includes changes in noise level of less than 1 dB that are typically “inaudible” to the human ear except under quiet conditions in controlled environments. Only “audible” changes in noise levels at sensitive receptor locations (i.e., 3 dB or more) are considered potentially significant. Note that a doubling of traffic flows (i.e., 10,000 vehicles per day to 20,000 per day) would be needed to create a 3 dB increase in traffic-generated noise levels.

Existing Conditions

The major existing noise source within the project site is operational noise from motor vehicles. Other noise sources are people talking and playing, including activities on the baseball field southeast of the proposed area of improvements. The school day (counting from first period) extends from 7:54 AM to 2:45 PM Tuesday through Friday, and 7:54 AM to 2:12 PM on Monday.

Pertinent Noise Standards

City of San Juan Capistrano Noise Ordinances

Pertinent Operational Noise Standards

Exterior noise standards for residential, public and institutional districts in San Juan Capistrano are set forth in Section 9-3.531 (Noise Standards: Residential and Nonresidential) of the City’s Municipal Code.

- 65 dB(A) between 7:00 AM and 7:00 PM
- 55 dB(A) between 7:00 PM and 10:00 PM
- 45 dB(A) between 10:00 PM and 7:00 AM

5. Environmental Analysis

Pertinent Construction Noise Standards

Construction noise is exempt from exterior noise standards set forth in Section 9-3.531 of the City's Municipal Code if the construction activities are conducted between 7:00 AM and 6:00 PM Monday through Friday or 8:30 AM to 4:30 PM on Saturday.

Would the project:

- a) **Result in exposure of persons to or generation of noise levels in excess of standards established in the local general plan or noise ordinance, or applicable standards of other agencies?**

Less Than Significant Impact.

Operational Noise Impacts

On-Campus Impacts

Traffic and Parking Impacts

Project development would shift some vehicle trips and parking from the southern end of the campus to the southwest part of the campus (near the existing round-about). The Phase One area of improvement is adjacent to two school buildings – the administration/media building (Building A) and a classroom building (Building B) – both to the east. Additionally, most of Parking Lot A is to the north and there is a school driveway and a landscaped slope to the west and south (see Figure 6, *Phase I Site Plan*). While there are existing parking lots on the west, south, and east sides of the campus, the main school parking lot is in the western part of the campus and would remain so after project completion.

The existing classroom building (Building B) is approximately 85 feet east of the nearest proposed (new) parking spaces and is approximately 68 feet northeast of the nearest existing parking spaces. The nearest driveway to Building B is approximately 38 feet to the southwest and would remain in place with project development. However, most vehicles bound for Parking Lot A – the main parking lot on the west side of the campus in both existing and post-project conditions – would use the main west driveway (an extension of Vista Montana), which passes about 115 feet southwest of Building B and would remain in place with project development.

The existing administration/media building (Building A) is approximately 90 feet east of the nearest existing driveway and 150 feet northeast of the nearest existing parking space. At project completion, the nearest driveway would remain approximately 90 feet from the building, and the nearest parking space would be approximately 140 feet from the building.

With the proposed shift in onsite traffic flow patterns, vehicle-related noise levels would be slightly reduced in the southern end of the campus near the proposed classroom building (Phase Two area of improvement) and would be slightly increased in the central-western part of the campus (Phase One area of improvement); west of existing Building B. Nonetheless, in consideration of the distances of the two existing school buildings nearest the proposed Phase One driveway, parking and landscaping reconfigurations, the noise levels from the change in traffic flow patterns would not be a substantial increase and would not differ

5. Environmental Analysis

notably from the current conditions. Therefore, no substantial increase in noise from new vehicle flow and/or parking would occur to on-campus receptors. Impacts would be less than significant and no mitigation measures are necessary.

Student-Related Noise Sources

There would be no increase in the number of staff personnel, but project development would result in an increase in the overall number of students on campus. However, considering existing uses on the campus surrounding the proposed area of improvements, any such increases in numbers of people surrounding the proposed classroom building would not be substantial and would not differ notably from the current conditions. Therefore, no substantial increase in noise from people talking would occur to on-campus receptors and impacts would be less than significant.

Stationary Noise Sources

Heating, ventilation, and air conditioning equipment on top of the proposed classroom building would be similar to such equipment on existing adjacent and nearby buildings on the campus. Additionally, this equipment would be placed within appropriate sound enclosures or parapets such that operation of such equipment would not be notably different than existing conditions in and around the proposed area of improvements and would not exceed the City's exterior noise standards. Therefore, no significant impacts would occur and no mitigation measures are necessary.

Off-Campus Impacts

The nearest residential properties to the project site are south of existing parking lot C and south of the baseball field. These homes – fronting on Via Zamora and having a buffer zone between their back walls and Vista Montana – are from approximately 65 feet to 140 feet south of the nearest curb on Vista Montana. These are also from 440 to 1,175 feet away from the proposed classroom building on the southern portion of the school campus. The closest existing campus-related facilities to these homes are the baseball field and the south end of parking lot C. The baseball field would not change as part of the proposed project and parking lot C would be reduced in size to accommodate the new classroom building (but the nearest stalls would remain in place).

Considering (a) the similarity between existing and future noise sources at the campus, (b) the distance from those campus-related sources to the nearest sensitive receptors, and (c) the major noise source associated with traffic flows on Vista Montana (assessed under Section 5.12[c], below), the project-generated noise would not result in exceedances of the City's noise standards at residential receptors along Via Zamora or Via Pamplona. Residences further from the campus would receive even lower noise levels from school facilities and activities due to additional distance attenuation, as well as screening reductions from intervening structures. Therefore, there would be no significant impacts to offsite receptors and no mitigation measures are necessary.

5. Environmental Analysis

Construction Noise Impacts

Project-related construction activities would be required to occur between 7:00 AM and 4:00 PM Monday through Friday, during the time when construction noise is exempted from the City's noise standards. Project-generated construction noise would not exceed the City's noise standards and impacts would be less than significant. Additional discussion is also presented in Section 5.12(d), below.

b) Result in exposure of persons to or generation of excessive groundborne vibration or groundborne noise levels?

Less Than Significant Impact.

Ongoing Operations Vibration Impacts

For potential project-generated vibration impacts to nearby receptors, the proposed project would not include equipment that could generate substantial levels of long-term groundborne vibration levels. Therefore, vibration impacts from onsite project sources would be less than significant and no mitigation measures are necessary.

Short-Term Construction Vibration Impacts

Construction activities can generate ground vibration that varies depending on the construction procedures, equipment used, and proximity to vibration-sensitive uses. Such vibrations may have two types of potential impacts: (a) architectural damage to nearby buildings and (b) annoyance to vibration-sensitive receptors.

Construction equipment generates vibrations that spread through the ground and diminish in amplitude with distance. Table 6 shows the peak particle velocities of some common construction equipment and haul trucks (loaded trucks).

Table 6 Typical Vibration Levels Produced by Common Construction Equipment

| Equipment | Peak Particle Velocity in inches per second (in/sec) | | |
|----------------------|--|--|--|
| | at 25 feet | at 50 feet | at 150 feet |
| Pile Driver (impact) | 1.518 (upper range) 0.644 (typical) | 0.537 (upper range) 0.228 (typical) | 0.103 (upper range) 0.044 (typical) |
| Vibratory Roller | 0.210 | 0.074 | 0.014 |
| Large Bulldozer | 0.089 | 0.031 | 0.006 |
| Loaded Trucks | 0.076 | 0.027 | 0.005 |
| Jackhammer | 0.035 | 0.012 | 0.002 |
| Small Bulldozer | 0.003 | 0.001 | 0.000 |

Source: FTA 2006.

The most intense vibration from construction activities is generated by blasting and pile driving; however, the proposed project is not expected to involve such activities. Rather, project construction is expected to involve use of dump trucks, skip loaders, rollers, back hoes, concrete pumps, and a crane.

5. Environmental Analysis

Vibration-Induced Architectural Damage

The threshold at which there is a risk of architectural damage to typical wood-framed buildings is 0.2 in/sec (FTA 2006). Building damage is not normally a factor unless the project requires blasting and/or pile driving (FTA 2006). No blasting, pile driving, or hard rock ripping/crushing activities are anticipated for the proposed project.

On-Campus Impacts

The highest PPV shown in Table 6, *Typical Vibration Levels Produced by Common Construction Equipment*, for non-pile driving equipment is 0.210 inches per second for use of a vibratory roller at 25 feet. This is just above the threshold for risk of architectural damage. However, demolition, site preparation, and grading activities are expected to involve use of five-ton rollers, but not vibratory rollers. As the existing science building is approximately 38 feet from the site of the proposed classroom building, PPV vibration levels at the science building resulting from project demolition, grading and construction activities are expected to be below the threshold for risk of damage. Therefore, vibration-induced architectural damage impacts would be less than significant at onsite receptors and no mitigation measures are necessary.

Off-Campus Impacts

The nearest existing residences to the site of the proposed classroom building are approximately 350 feet away and vibration at the residences would be well below the threshold for risk of damage. Therefore, vibration-induced architectural damage impacts would be less than significant at offsite receptors and no mitigation measures are necessary.

Vibration Annoyance

The threshold for vibration annoyance at vibration-sensitive uses is 78 VdB (FTA 2006). This is approximately equal to 0.0315 PPV (with an assumed crest factor of 4¹⁰). Vibration is typically noticed nearby when objects in a building generate noise from rattling windows or picture frames. It is typically not perceptible outdoors, and therefore impacts are based on the distance to the nearest building (FTA 2006). The effect on buildings near a construction site depends on soil type, ground strata, and receptor building construction. Vibration can range from no perceptible effects at the lowest levels, to low rumbling sounds and perceptible vibrations at moderate levels, to slight damage at the highest levels.

On-Campus Impacts

The construction activities that could generate the most intense vibration would be demolition, site preparation, and grading. Those activities under the Proposed Project are planned for summer 2016 when the school would not be in session.¹¹ The District's high school summer school program consists of online courses and there would be negligible students or staff on the school campus during the summer. Other construction activities would be conducted when the school campus would be used for normal operations, but these activities would generate much less vibration than the demolition, site preparation, and grading

¹⁰ Crest factor is the ratio of the PPV amplitude to the rms (root-mean-square) amplitude of a vibrational energy source.

¹¹ The last day of instruction for the 2015-2016 school year at CUSD schools is Thursday June 9, 2016, while the 2016-17 school year will start on August 15, 2016.

5. Environmental Analysis

processes. That is, the anticipated use of dump trucks, skip loaders, rollers, back hoes, concrete pumps, and a crane – even as close as 38 feet to the existing science building – would be expected to generate groundborne vibration levels below the 78 VdB annoyance threshold at on-campus facilities. Therefore, on-campus vibration annoyance effects or disturbances would be less than significant and no mitigation measures are necessary.

Off-Campus Impacts

Since vibration dissipates quickly with distance and the nearest existing residences are about 350 feet from the proposed construction zone, vibration levels would be below the 78 VdB threshold for vibration-induced annoyance. Additionally, construction would take place during the least sensitive hours of the day when less people would be expected to be in the nearby residences. Therefore, off-campus construction vibration impacts would be less than significant and no mitigation measures are necessary.

c) Result in a substantial permanent increase in ambient noise levels in the project vicinity above levels existing without the project?

Less Than Significant Impact. Project-generated operational noise, mechanical equipment and on-campus sounds from students, was found to be consistent with the existing conditions at or near the school buildings that are adjacent to the proposed areas of improvement; as analyzed in Section 5.12 (a), above. This would also hold true for campus-related and project-generated noise levels at the nearest sensitive receptors (i.e., the homes south of Vista Montana).

For potential traffic-generated noise, the majority of people driving to the school campus enter the facility from one of two campus roadways off of Vista Montana; west of La Pata Avenue. Northward, beyond the “T” intersection of Vista Montana and Via Pamplona, only people driving to the campus would be expected to be on Vista Montana.

In general, a large portion of the adjacent areas around the school campus consist of vacant land (see Figure 3, *Aerial Photograph*). The nearest residential properties to the school campus are south of existing parking lot C and south of the baseball field. These homes, fronting on Via Zamora and having a buffer zone between their back walls and Vista Montana, are from approximately 65 feet to 140 feet south of the nearest curb on Vista Montana. The speed limit on Vista Montana is 40 miles per hour.

The ratio of future students compared to existing students at the school campus is approximately 1.3 (i.e., $3,039 / 2,391 \approx 1.3$). Assuming a consistent use of Vista Montana (primarily with respect to the speed limit) and assuming the trips per student per day is comparable between existing and future timeframes, then the associated increase in traffic-related flow noise would be approximately 1.0 dB.

With respect to projected-related increases, noise impacts can be broken down into three categories. The first is “audible” impacts, which refer to increases in noise level that are perceptible to humans. Audible increases in general community noise levels generally refer to a change of 3 dB or more since this level has been found to be the threshold of perceptibility in exterior environments. The second category, “potentially audible” impacts, refers to a change in noise level between 1 and 3 dB. This range of noise levels was found to be noticeable to sensitive people in laboratory environments. The last category includes changes in noise level of

5. Environmental Analysis

less than 1 dB that are typically “inaudible” to the human ear except under quiet conditions in controlled environments. Only “audible” changes in noise levels at sensitive receptor locations (i.e., 3 dB or more) are considered potentially significant.

Since the projected increases in project-related traffic flows is well below the commonly accepted threshold of a 3 dB increase (and more likely to fall in the category of an “inaudible” change), the proposed project would not result in notable or substantial permanent increases in community noise levels due to traffic flows. Therefore, no significant permanent noise increases due to project-related activities, equipment, or traffic would occur and no mitigation measures are necessary.

d) Result in a substantial temporary or periodic increase in ambient noise levels in the project vicinity above levels existing without the project?

Less Than Significant Impact. Project construction would involve demolition of asphalt paving and cement curbs in the affected parking lots and turnabout, as well as construction of the proposed classroom building and new parking lots and driveways. The entire construction period is estimated to be approximately 10 months long. The noisiest portions, however (i.e., the demolition, site preparation, and grading phases), are expected to take a total of 2 months and are planned for the summer of 2016. The last day of instruction for the 2015-2016 school year at CUSD schools is June 9, 2016, and the next school year (2016-17) will start on August 15, 2016. No summer school is offered at San Juan Hills High School. Construction would occur between 7:00 AM and 4:00 PM, during the least noise-sensitive part of the day per the City’s noise standards.

Construction activities would increase noise levels on and near the proposed areas of improvement above existing levels. Construction of the proposed classroom building would involve some earthwork, as site preparation and foundation construction would involve grading to greater depths than would have been done for construction of the existing parking lot on the site. However, earthwork on this developed portion of the campus would be somewhat less than earthwork for construction on vacant land; therefore, the construction noise estimate would be conservative. The demolition, site preparation, and grading portions of construction would typically be the noisiest periods of activity, since in general, the largest and most powerful equipment is used during these activities. Thereafter, building construction, application of architectural coatings, paving, and landscaping activities typically generate substantially less noise than demolition and grading activities do. Noise produced from construction is commonly held to decrease at a rate of at least 6 decibels (dB) per doubling of distance; conservatively ignoring other attenuation effects from air absorption, ground effects, and/or shielding/scattering effects.¹² For example, a dozer that generates 85 dBA at 50 feet would measure 79 dBA at 100 feet, 73 dBA at 200 feet, 67 dBA at 400 feet, and 61 dBA at 800 feet (at –6 dB per doubling). Likewise, construction noise would increase by approximately 6 dB per halving of distance (while the receiver was still in the free-field zone of sound propagation). Composite construction noise (by phase) from industrial development is estimated as 89 dBA L_{eq} when measured at a distance of 50 feet from the construction effort (Bolt Beranek and Newman, 1971).

¹² As sound energy travels outward from the source, spreading loss accounts for a 6 dB decrease in noise level. Soft ground and atmospheric absorption effects can decrease this by an additional 1.5 dB.

5. Environmental Analysis

Composite construction noise (by phase) from industrial development is estimated as 89 dBA L_{eq} when measured at a distance of 50 feet from the construction effort (Bolt Beranek and Newman 1971). Noise produced from construction decreases at a rate of approximately 6 decibels (dB) (or more) per doubling of distance (conservatively ignoring other attenuation effects from air absorption, ground effects, and/or shielding/scattering effects).

On-Campus Impacts

Demolition and construction activities would increase noise levels on and near the proposed areas of improvement above existing levels. Building construction, application of architectural coatings, paving, and landscaping generate substantially less noise than demolition and grading do. The nearest existing school building to the site of the proposed classroom building is the science building approximately 38 feet to the north. At this distance, noise from construction activities of the proposed classroom building onto the existing science building would be slightly greater than 89 dBA L_{eq} ; approximately 91 to 92 dBA L_{eq} . Construction of the proposed classroom building would involve some earthwork, as site preparation and foundation construction would involve grading to greater depths than would have been done for construction of the existing parking lot on the site. However, earthwork on this developed portion of the campus would be somewhat less than earthwork for construction on vacant land; therefore, the construction noise estimate here is slightly conservative.

Assuming a typical exterior-to-interior sound reduction characteristic of 20 to 25 dB (EPA, 1974), the resulting interior levels would be in the range of 66 to 72 dBA L_{eq} . This would be a clearly unacceptable instructional environment per commonly used industry standards (LASUD 2015 and ANSI/ASA 2010).¹³ As noted above, effects of these project-related construction activities cannot be considered as impacts under CEQA (since a project cannot produce impacts onto itself). Nonetheless, these noise effects would still be a concern regarding potential intrusion, annoyance, and disruption to immediately adjacent, on-campus instructional spaces. Therefore, implementation of the following Project Design Features (PDF) would ensure that existing campus buildings would not experience undue noise effects to learning environments due to nearby project-related construction activities.

PDF-NOI-2: The following procedures to reduce potential noise intrusion effects should be implemented during construction, as practical:

- During the construction of the proposed classroom building, the District shall either:
 - (1) Relocate students to campus facilities that are at least 100 feet from the edge of the construction zone or that do not face the construction site,

OR

¹³ For example, the Los Angeles Unified School District requires the analysis of acoustical environments and related building components (such as heating, ventilation, and air conditioning [HVAC]) with the design goal of achieving interior classroom noise levels of less than 55 dBA L_{10} or 45 dBA L_{eq} with maximum (unoccupied) reverberation times of 0.6 seconds. Noise reduction methods needed to attain these goals shall include, but are not limited to, sound walls, building and/or classroom insulation, HVAC modifications, double-paned windows, and other design features (LAUSD 2015).

5. Environmental Analysis

- (2) Erect a temporary noise barrier/curtain between the construction zone and all classrooms. The temporary sound barrier shall have a minimum height of 12 feet and be free of gaps and holes and must achieve a Sound Transmission Class (STC) of 35 or greater. The barrier can be (a) a $\frac{3}{4}$ -inch-thick plywood wall or (b) a hanging blanket/curtain with a surface density of at least 2 pounds per square foot (Thalheimer 2000). For either configuration, the construction side of the barrier shall have an exterior lining of sound absorption material with a Noise Reduction Coefficient (NRC) rating of at least 0.7.

Off-Campus Impacts

The nearest off-campus receptors from the proposed areas of improvement would be residents approximately 350 feet to the south, across Vista Montana. At this distance, composite construction noise would be reduced to a conservatively estimated level of approximately 72 dBA Leq (due to distance attenuation alone). Since construction activities would be limited to relatively small equipment (i.e., bulldozers, grading tractors, dump trucks, skip loaders, back hoes, concrete pumps, and a crane), would take place during the least sensitive hours of the day, and would conform to the time-of-day restrictions of the City's Municipal Code, construction noise impacts would be less than significant and no mitigation measures are necessary.

- 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 expose people residing or working in the area to excessive noise levels?**

No Impact. There are no public-use airports within five miles of the project site. Project development would not expose people onsite to excessive airport-related noise levels. Therefore, no impact would occur and no mitigation measures are necessary.

- f) **For a project within the vicinity of a private airstrip, would the project expose people residing or working in the project area to excessive noise levels?**

No Impact. There are no heliports or other private air strips within five miles of the project site. Project development would not expose people onsite to excessive heliport- or airstrip-related noise levels. Therefore, no impact would occur and no mitigation measures are necessary.

5.13 POPULATION AND HOUSING

- a) **Induce substantial 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)?**

Less Than Significant Impact. The proposed project does not include the development of new homes or businesses and would not extend utilities infrastructure offsite into currently served and unserved areas. The proposed project involves the introduction of new classroom building and other site improvements to an existing high school campus. The increase in the number of students as a result of project implementation would not induce substantial population growth in the area, either directly or indirectly. The increase in students would be as a result of an increase in high school-level students in the area and not do to the

5. Environmental Analysis

proposed project either directly or indirectly inducing population growth. In addition to serving the needs of the student increase, the proposed classroom building would be added to alleviate overcrowding at San Juan Hills High School. The classroom building would allow the high school staff to shift students from overcrowded classrooms to the new classrooms, thereby freeing up space in existing classrooms. Therefore, impact would be less than significant and no mitigation measures are necessary.

b) Displace substantial numbers of existing housing, necessitating the construction of replacement housing elsewhere?

No Impact. As shown in Figures 3, *Aerial Photograph*, the project site is developed with the campus of San Juan Hills High School. No housing exists on the project site. Therefore, project development would not displace housing or people. No impact would occur and no mitigation measures are necessary.

c) Displace substantial numbers of people, necessitating the construction of replacement housing elsewhere?

No Impact. See response to Section 5.13(b), above.

5.14 PUBLIC SERVICES

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

a) Fire protection?

Less than Significant Impact. The Orange County Fire Authority (OCFA) provides fire protection and emergency medical services to the existing school. The two closest fire stations to the project site are Station 56 at 56 Sendero Way in the Community of Rancho Mission Viejo in unincorporated Orange County, approximately 1.5 miles to the north; and Station 7 at 31865 Del Obispo in San Juan Capistrano, approximately 2.1 miles to the west (OCFA 2016). Considering the existing firefighting resources available to the school, project impacts on fire protection and emergency services are not expected to occur. Additionally, OCFA would be involved in the proposed project's development review process in order to ensure that the necessary fire prevention and emergency response features are incorporated. All site and building improvements proposed under the project would be subject to review and approval by OCFA.

Furthermore, the fire water system for the proposed classroom building would be designed to comply with NFPA (National Fire Protection Association) 24, "Standard for the Installation of Private Fire Service Mains and Their Appurtenances" 2013 Edition and with the Orange County Fire Authority Guideline B-10 for Fire Master Plans for public schools; water system improvements would include new water pipes, gate valves, back flow preventers, fire sprinklers, and fire hydrants.

5. Environmental Analysis

Therefore, implementation of the proposed project would not substantially increase demands for fire protection or emergency medical services at the school nor require construction of new or expanded fire stations. Impacts would be less than significant and no mitigation measures are necessary.

b) Police protection?

Less than Significant Impact. The project site is within the service area of the Orange County Sheriff's Department (OCSD). Sheriff's patrols in the project region are based from the Southwest Operations Division station at 11 Journey in the City of Aliso Viejo. The proposed project, which would result in an increase in student numbers at the school as a result of the new classroom building, is not expected to cause a need for new or expanded police facilities or additional officers. Adequate police service is currently provided to the school campus and would continue to under the proposed project. Additionally, on-campus police (as needed) and security cameras are currently provided around the school. Therefore, impacts would be less than significant and no mitigation measures are necessary.

c) Schools?

No Impact. Demand for schools in an area is usually determined by the area's population. The proposed project does not include the development of new homes, which lead to an increase in student generation and thereby, the need for additional school facilities. The proposed project would not induce population growth in the area, either directly or indirectly. The proposed project involves a number of improvements in the southern and southwestern portions of the campus of San Juan Hills High School, including the construction of a new two-story classroom building. Addition of the proposed classroom building would have a favorable impact on school facilities by relieving existing overcrowding at San Juan Hills High School, as well as serving the needs of additional students that would be accommodated by the new classroom building. The increase in the number of students would be served by the existing campus and facilities. Therefore, no impact would occur and no mitigation measures are necessary.

d) Parks?

No Impact. See response to Section 5.15, *Recreation*, below.

e) Other public facilities?

No Impact. Demand for library facilities in an area is usually determined by the area's population. The proposed project does not include the development of new homes, which lead to an increase in population and thereby, the need for additional library facilities. The proposed project involves a number of improvements in the southern and southwestern portions of the campus of San Juan Hills High School, including the construction of a new two-story classroom building. The existing students of the school and the increase in students as a result of project implementation would continue to make use of and be served by the existing library on campus. Project development would not require the construction of new or expanded library facilities. Therefore, no impacts would occur and no mitigation measures are necessary.

5. Environmental Analysis

5.15 RECREATION

- 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. Demand for parks and recreational facilities in an area are usually determined by the area's population. The proposed project does not include the development of new homes, which lead to an increase in population and thereby, the need for additional park and recreation facilities. The proposed project involves a number of improvements in the southern and southwestern portions of the campus of San Juan Hills High School, including the construction of a new two-story classroom building. The existing students of the school and the increase in students as a result of project implementation would continue to make use of and be served by the existing school sports and recreational facilities onsite. No expansion of or modifications to the existing school sports and recreational facilities onsite would occur under the proposed project. Therefore, the proposed project would not increase the use of existing neighborhood and regional parks or other recreational facilities, nor would it require construction of new or expanded parks or recreational facilities. No impacts to park and recreational facilities would occur and no mitigation measures are necessary.

- 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. See response to Section 5.15(a), above.

5.16 TRANSPORTATION/TRAFFIC

Methodology

Definition of Level of Service

Roadway capacity is generally limited by the ability to move vehicles through intersections. A level of service (LOS) is a standard performance measurement to describe the operating characteristics of a street system in terms of the level of congestion or delay experienced by motorists. Service levels range from A through F, which relate to traffic conditions from best (uncongested, free-flowing conditions) to worst (total breakdown with stop-and-go operation).

Intersection Level of Service

The intersection LOS analysis is based on the traffic volumes observed during the peak hour conditions. The peak hours selected for analysis are the highest volumes that occur in four consecutive 15-minute periods from 7 to 9 AM and from 4 to 6 PM on weekdays.

In conformance with the City's requirements, existing AM and PM peak hour operating conditions for the key signalized study intersections were evaluated using the Intersection Capacity Utilization (ICU) method. The ICU technique is intended for signalized intersection analysis and estimates the volume to capacity (V/C) relationship for an intersection based on the individual V/C ratios for key conflicting traffic movements. The

5. Environmental Analysis

ICU value translates to an LOS estimate. Descriptions of the LOS letter grades for signalized intersections and the relationship between the various volume-to-capacity (V/C) ratios are provided in Table 7. To determine the LOS at the signalized intersections in the City of San Clemente per City requirements, the ICU calculations use a lane capacity of 1,600 vehicles per hour (vph) for left turn, thru, and right-turn lanes, and a dual left-turn capacity of 3,200 vph. For intersections in San Juan Capistrano and unincorporated Orange County the ICU calculations use a lane capacity of 1,700 vehicles per hour (vph) per lane with a clearance interval of 5 seconds per cycle.

Table 7 Intersection LOS Criteria for Signalized Intersections

| Level of Service | Description | V/C Ratio |
|------------------|---|-------------|
| A | Operations with very low delay occurring with favorable progression and/or short cycle length. | 0.000–0.600 |
| B | Operations with low delay occurring with good progression and/or short cycle lengths. | 0.601–0.700 |
| C | Operations with average delays resulting from fair progression and/or longer cycle lengths. Individual cycle failures begin to appear. | 0.701–0.800 |
| D | Operations with longer delays due to a combination of unfavorable progression, long cycle lengths, or high V/C ratios. Many vehicles stop and individual cycle failures are noticeable. | 0.801–0.900 |
| E | Operations with high delay values indicating poor progression, long cycle lengths, and high V/C ratios. Individual cycle failures are frequent occurrences. This is considered to be the limit of acceptable delay. | 0.901–1.000 |
| F | Operation with delays unacceptable to most drivers occurring due to over saturation, poor progression, or very long cycle lengths. | Over 1.000 |

Source: City of San Clemente Centennial General Plan, 2014.

Typically, the operations of unsignalized intersections are measured in delays of seconds using the Highway Capacity Methodology (HCM). Per the HCM methodology, the worst-case approach delay was calculated at unsignalized intersections. The level of service corresponds to the delay calculated. Table 8 describes the level of service concept and the operating conditions expected under each level of service for signalized and unsignalized intersections. The software Vistro Version 4 from PTV America was used to determine the LOS at the study area unsignalized intersections.

Table 8 Intersection LOS Criteria for Intersections

| LOS | Signalized | Unsignalized |
|-----|-------------------------------------|-------------------------------------|
| | Average Delay per Vehicle (seconds) | Average Delay per Vehicle (seconds) |
| A | 0 to 10.00 | 0 to 10.00 |
| B | 10.01 to 20.00 | 10.01 to 15.00 |
| C | 20.01 to 35.00 | 15.01 to 25.00 |
| D | 35.01 to 55.00 | 25.01 to 35.00 |
| E | 55.01 to 80.00 | 35.01 to 50.00 |
| F | 80.01 and up | 50.01 and up |

Source: Highway Capacity Manual, Transportation Research Board.

5. Environmental Analysis

Acceptable LOS and Thresholds of Significance

Orange County

The County of Orange General Plan Transportation Element indicates that the level of service standard for roadways and intersections is LOS D. An intersection would be potentially significantly impacted if a project would result in an increase of 0.01 or greater in the ICU value at an intersection that is projected to operate at unacceptable LOS. Impacts would not be significant at intersections that are projected to operate at acceptable D.

City of San Juan Capistrano

For San Juan Capistrano, LOS D is the minimum acceptable condition at intersections. The City allows a few intersections that are in “hot spot” locations to operate at LOS E. Hot spot designations are applied at special locations that experience unique congestion. These locations are determined based on operational constraints (H_o), proximity to schools (H_s), or limited space (H_l). None of the study intersections for the proposed project are located in hot spot areas, therefore for the purpose of the traffic analysis, LOS D is the minimum acceptable LOS at the study intersections.

All study intersections are signalized, except for intersections 3 and 4. A signalized intersection would be potentially significantly impacted if a project would result in an increase of 0.01 or greater in the ICU value at a signalized intersection that is projected to operate at LOS E or F. For unsignalized intersections, the HCM method is utilized to evaluate LOS. An unsignalized intersection would be potentially significantly impacted if a project would result in an increase in delay of 1 second or greater at an unsignalized intersection that is projected to operate at LOS E or F. Impacts would not be significant at intersections that are projected to operate at LOS A through D.

City of San Clemente

Under Goal M-1.01 of the City’s General Plan Centennial Plan, the City has established LOS D as the minimum level of service for its roadway system, except for where LOS E is deemed appropriate to accommodate complete streets facilities.

A project would have a significant impact at a study area intersection if it causes the level of service to deteriorate from a satisfactory LOS to an unsatisfactory LOS and the project contribution to the ICU is greater than 0.01. Impacts would not be significant at intersections that are projected to operate at LOS A through D.

CMP Intersections

For CMP intersections, LOS E would be acceptable. An intersection is impacted by the project if it is anticipated to operate worse than the performance standard (i.e. D for arterials and E for CMP intersections) and the project contribution to the ICU is 0.03 or greater. Impacts would not be significant at intersections that are projected to operate at LOS A through E.

5. Environmental Analysis

Existing Conditions

Lane and intersection configurations and the number of through lanes for roadways in the traffic study area are shown in Figure 11, *Traffic Study Analysis Area*.

Study Roadway System

Vista Montana is a local street providing access to the school and residential developments in the area. Vista Montana has two lanes in each direction with a raised median. Access to the residential developments is provided by the Vista Pamplona and Vista Granada local roads, these intersections are stop-controlled.

Avenida La Pata/ La Pata Avenue is a north-south road designated as a Primary Arterial in the Orange County Master Plan of Arterial Highways (MPAH). La Pata Avenue provides regional access to San Juan Hills High School via the signalized intersection at Vista Montana at La Pata Avenue. It is currently being extended by Orange County Public Works (OCPW) to connect Antonio Parkway and Ortega Highway to San Clemente. The extension will be approximately two miles long and provide additional access to Avenida Vista Hermosa, Avenida Pico, and Ortega Highway. The existing La Pata Avenue section south of Ortega Highway will have two additional lanes of travelling, totaling five travel lanes. The extension connecting to Avenida La Pata, known as *La Pata Gap Connector* will have four travel lanes and is expected to be completed in August 2016.

Ortega Highway (State Highway 74) is an east-west roadway designated as a Primary arterial in the City of San Juan Capistrano and also designated as a CMP facility. It currently has two lanes in each direction for most segments, with sections that have been widened to provide four thru lanes in each direction.

San Juan Creek Road is designated in the City of San Juan Capistrano as a Secondary Arterial east of La Novia Avenue. It is shown in the County's MPAH and in the City of San Juan Capistrano General Plan connecting to La Pata Avenue. For the purpose of the traffic analysis, the long range 2035 conditions assumes the connection to La Pata Avenue, consistent with the City's General Plan and MPAH.

Cow Camp Road provides access to Planning Area 2 of the Rancho Mission Viejo and currently has three lanes. It will be eventually build with six lanes and potentially would provide a connection to the planned extension of State Route 241.

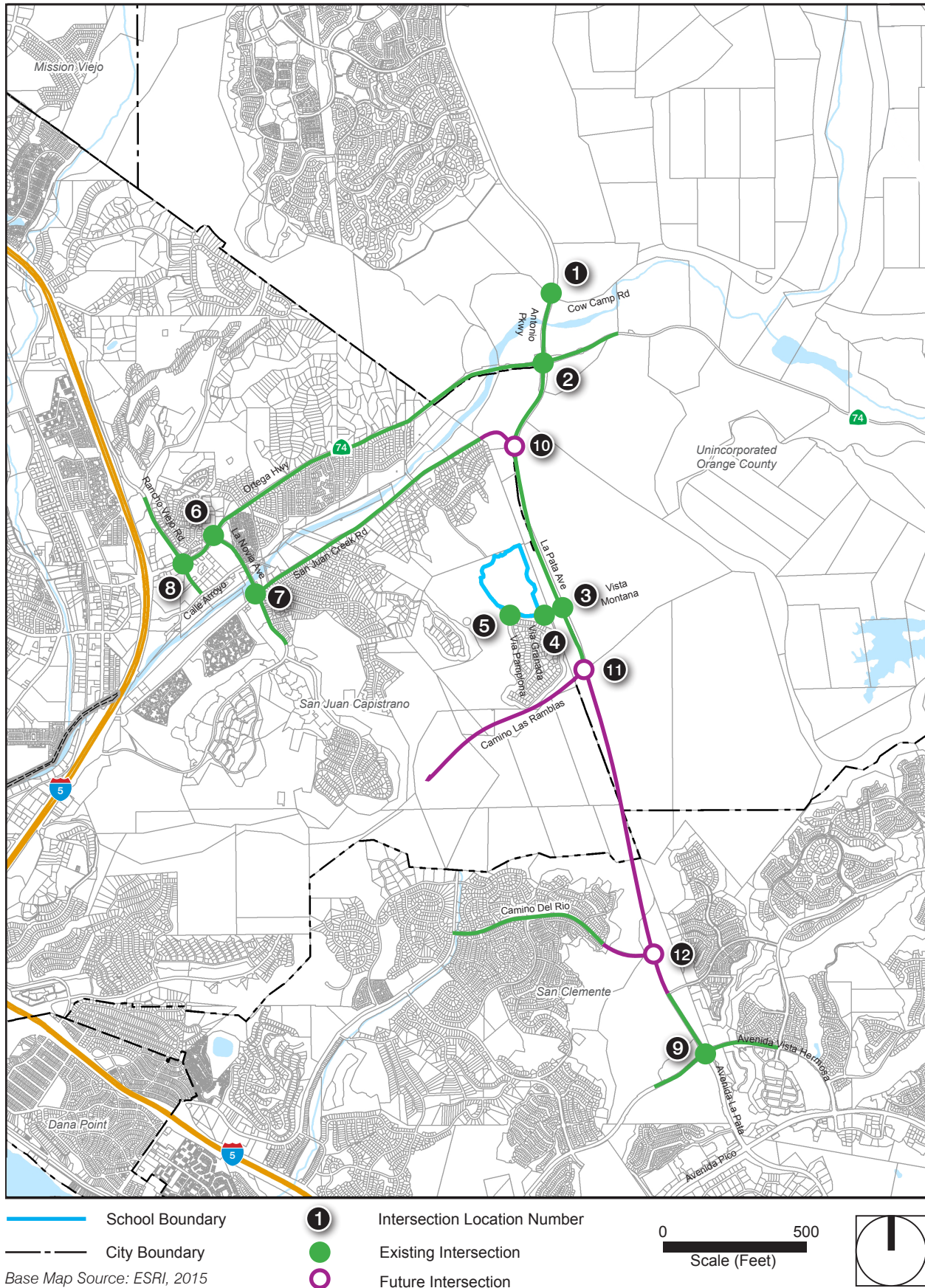
Rancho Viejo Road is a north-south Secondary Arterial with two lanes in each direction.

Camino Del Rio is a north-south road with two lanes in each direction with a planned extension to connect to La Pata Avenue. Construction for Camino Del Rio extension to La Pata Avenue is anticipated to commence in the summer of 2016, as part of the La Pata Extension Improvements project.

Camino Las Ramblas is a north-south road with one lane in each direction with a planned extension to connect to the newly extended La Pata Avenue.

Avenida Vista Hermosa is mainly a primary arterial with four lanes of travel with raised medians throughout the street.

Figure 11 - Traffic Study Analysis Area
 5. Environmental Analysis



5. Environmental Analysis

This page intentionally left blank

5. Environmental Analysis

Study Area Intersections

Based on the proposed project plans and the estimate of trips that would be added by the project in conjunction with the traffic redistribution due to the future network configuration with the extension of La Pata Avenue, Camino del Rio, Camino Las Ramblas and San Juan Creek Road, the following intersections were analyzed to evaluate potential impacts with implementation of the proposed project:

1. Antonio Parkway at Cow Camp Road
2. Antonio Parkway/La Pata Avenue at Ortega Highway
3. La Pata Avenue at Vista Montana
4. Via Granada at Vista Montana
5. Via Pamplona at Vista Montana
6. La Novia Avenue at Ortega Highway
7. La Novia Avenue at San Juan Creek Road
8. Rancho Viejo Road at Ortega Highway
9. Avenida La Pata at Avenida Vista Hermosa
10. La Pata Avenue at San Juan Creek Road (future intersection)
11. La Pata Avenue at Camino Las Ramblas (future intersection)
12. La Pata Avenue at Camino Del Rio (future intersection)

All study intersections except Via Granada at Vista Montana, and Via Pamplona at Vista Montana are signalized. Figure 12, *Intersection Lane Configurations and Traffic Controls*, shows the intersection lane configurations and traffic controls.

Campus Access

The main access to the campus of San Juan Hills High School is via Vista Montana, which connects the parking areas on the western portion of the campus and the student drop-off and pick-up areas to La Pata Avenue. Students, parents and visitors are directed to use Vista Montana to access the school campus. As discussed above, Vista Montana is a four-lane divided road that also provides access to residential developments from Vista Pamplona and Vista Granada.

An additional ingress driveway from La Pata Avenue restricted to right turns in only provides access to the staff parking area on the eastern portion of the campus. The driveway has a single, one-way lane from La Pata Avenue to the parking area located to the north of the tennis courts. It becomes a two-way driveway from that point until it ends at Vista Montana.

Existing Intersections Operations

Existing Traffic Volumes

Turn movement volumes for weekday AM and PM peak hours were obtained on Wednesday January 10, 2016. The intersection count worksheets are included in Appendix D.

5. Environmental Analysis

Existing Conditions Intersection Operations Analysis

The intersection operations analysis results are summarized in Table 9. As shown in this table, all study area intersections currently operate at acceptable LOS during the peak hours, except for La Pata Avenue at Vista Montana, which currently operates at LOS E in the AM peak hour. Field observations in the vicinity of the school confirms that during student drop-off vehicular queues form from the student drop-off area at the school parking lot extending to Vista Montana and into the northbound segment of La Pata Avenue.

Table 9 Existing Conditions Intersection Level of Service

| Intersection | Traffic Control | AM Peak Hour | | PM Peak Hour | |
|---|-----------------|-----------------|----------|-----------------|-----|
| | | ICU or Delay(s) | LOS | ICU or Delay(s) | LOS |
| 1. Antonio Parkway at Cow Camp Road | Signalized | 0.288 | A | 0.236 | A |
| 2. Antonio Parkway/La Pata Avenue at Ortega Highway | Signalized | 0.644 | B | 0.592 | A |
| 3. La Pata Avenue at Vista Montana | Signalized | 0.944 | E | 0.164 | A |
| 4. Via Granada at Vista Montana | Unsignalized | 33.1 | D | 9.8 | A |
| 5. Via Pamplona at Vista Montana | Unsignalized | 29.9 | D | 9.6 | A |
| 6. La Novia Avenue at Ortega Highway | Signalized | 0.564 | A | 0.640 | B |
| 7. La Novia Avenue at San Juan Creek Road | Signalized | 0.491 | A | 0.406 | A |
| 8. Rancho Viejo Road at Ortega Highway | Signalized | 0.575 | A | 0.739 | C |
| 9. Avenida La Pata at Vista Hermosa | Signalized | 0.579 | A | 0.479 | A |

Notes: LOS calculation worksheets included in Appendix G.

1 Unsignalized intersections based on the delay in seconds at the worst-case approach.

2 Signalized intersections based on the volume to capacity ratio (V/C).

3 Intersections that operate at unacceptable LOS are shown in **bold**.

4 Intersection LOS calculation worksheets for existing conditions are provided in Appendix D.

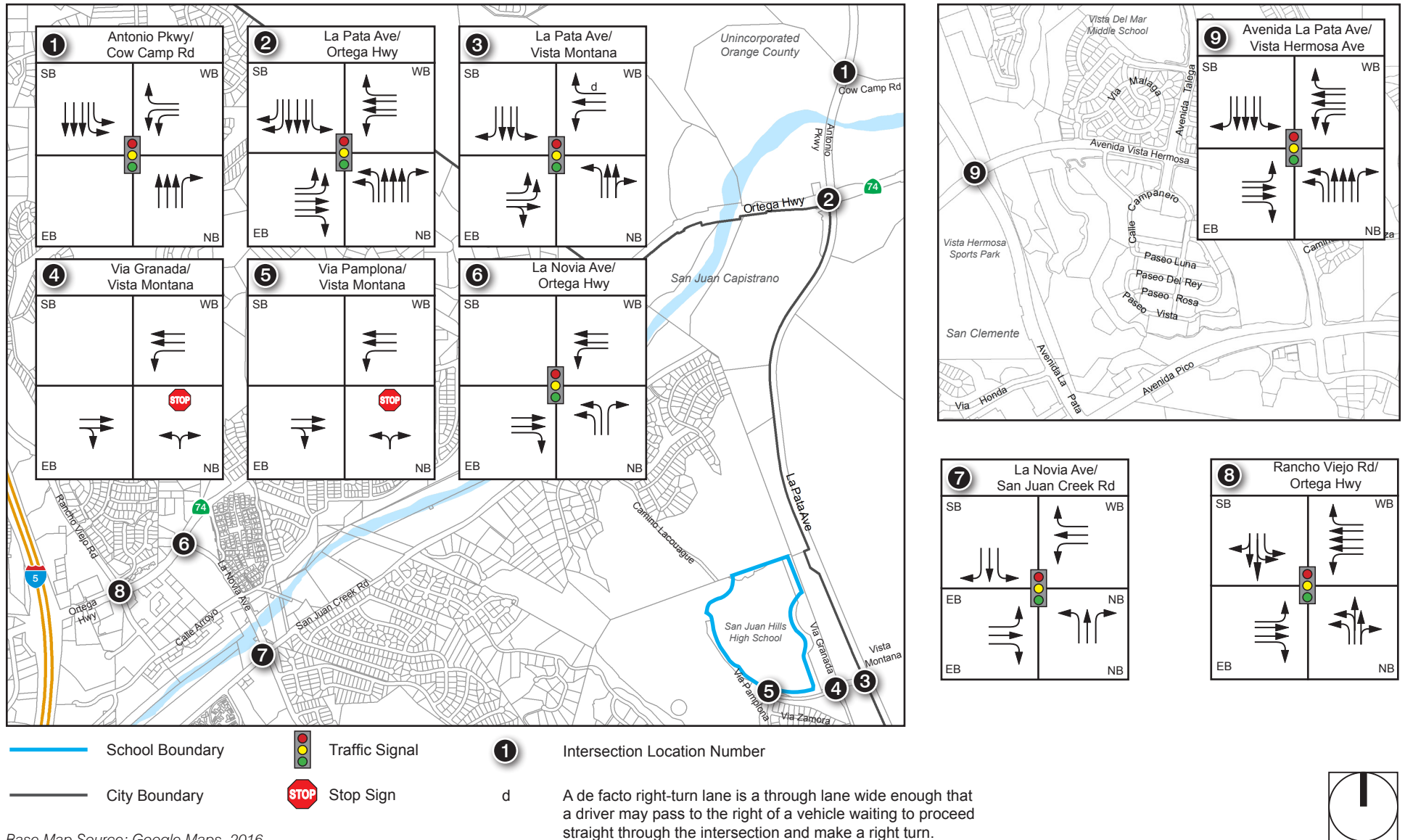
Existing Transit and Non-Motorized Transportation

The Orange County Transit Authority (OCTA) provides regular transit service in Orange County. Currently, there is no bus service within at least two miles from the project site. Paved sidewalks are located on Vista Montana, Via Pamplona and Via Granada, which provide convenient pedestrian access from the residential development to the school.

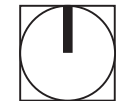
- a) **Conflict with an applicable plan, ordinance or policy establishing measures of effectiveness for the performance of the circulation system, taking into account all modes of transportation including mass transit and non-motorized travel and relevant components of the circulation system, including but not limited to intersections, streets, highways and freeways, pedestrian and bicycle paths, and mass transit?**

Figure 12 - Intersection Lane Configurations and Traffic Controls

5. Environmental Analysis



Base Map Source: Google Maps, 2016



5. Environmental Analysis

This page intentionally left blank.

5. Environmental Analysis

Less Than Significant Impact With Mitigation. The current student population of the school campus is approximately 2,391. The proposed project would include a new classroom building that would add 24 classrooms to the campus, thereby resulting in an increase in 648 students. Therefore, there would be a net increase in vehicular trips with implementation of the proposed project due to increased student capacity. For the purpose of the traffic analysis, it was conservatively assumed that the project trip generation would be related to 700 students.

The project's trip generation was calculated based on rates in the ITE Trip Generation Manual (9th edition) for Land Use 530, High School. The general approach for conducting traffic impact analyses is to evaluate weekday peak hour traffic during the commute peak traffic conditions that generally occur from 7 to 9 AM and 4 to 6 PM. Table 10 shows the trip generation rates and project trip generation for the AM and PM peak hours and daily. As shown in the table, the proposed project is expected to generate 1,197 vehicle trips on a typical weekday, with 301 trips (205 inbound and 96 outbound) during the AM peak hour and 91 trips (43 inbound and 48 outbound) during the PM peak hour. It should be noted that the proposed project would generate 67 inbound trips and 136 outbound trips during early afternoon student dismissal periods. These volumes are less than the volumes calculated for the AM peak hour, which coincides with the AM peak hour traffic on the overall street network. However, because the higher traffic volumes in the area in the circulation network occurs between 4 to 6 PM, the PM peak hour traffic condition was evaluated.

Table 10 Project Trip Generation

| Land Use | Unit ¹ | Trip Generation ¹ | | | | | | |
|--------------------------------|-------------------|------------------------------|--------------|-----------|------------|---------------------------|-----------|-----------|
| | | Daily | AM Peak Hour | | | PM Peak Hour ³ | | |
| | | | In | Out | Total | In | Out | Total |
| High School Rates ² | STU | 1.29 | 0.25 | 0.20 | 0.45 | 0.07 | 0.08 | 0.15 |
| Project Trip Generation | 700 | 1,197 | 205 | 96 | 301 | 43 | 48 | 91 |

Notes:

¹ Units are per student.

² Trip generation rates for high schools, land use code 530 of the ITE's Trip Generation Manual, 9th Edition.

³ Commute PM peak hour from 4 to 6 PM.

The proposed project's trip distribution is based on trip distribution patterns obtained from the current City of San Juan Capistrano model (traffic model). The traffic model was utilized to calculate the existing trip patterns related to the school and the future traffic patterns and volumes. Appendix D includes the technical memorandum provided by Urban Crossroads, Inc., which summarizes the results of trip distribution maps and traffic forecasts for long range conditions using the traffic model. Consistent with the most recent traffic forecasts prepared for projects in San Juan Capistrano, the City's traffic model assumes the extension of State Route 241 to Interstate 5 and the extension of San Juan Creek Road to La Pata Avenue. The current school attendance includes San Juan Capistrano, portions of San Clemente and portions of Rancho Mission Viejo and Ladera Ranch. The project trip distribution was estimated according to information provided by the traffic model using a select zone analysis and current student attendance information provided by the District. At the time of project opening year, La Pata Avenue will be connected to San Clemente and allow thru traffic from Vista Montana to Avenida Vista Hermosa.

5. Environmental Analysis

The school District has an open enrollment policy where students may enroll in schools outside of the formal boundaries subject to the capacity limitations of the receiving school. Thus, with the gap closure of La Pata Avenue many students may shift from San Clemente High School to San Juan Hills High School. In addition, San Juan Hills High School is the closest school to Rancho Mission Viejo planning areas 2 and 3. According to information provided by the District, given the current enrollment it is anticipated that 180 vehicles would come from south of La Pata Avenue when the La Pata Avenue gap connector is opened. For long range 2035 conditions with anticipated land development in San Clemente and Rancho Mission Viejo, and modified travel patterns with the construction of the extensions of Camino Del Rio, Camino Las Ramblas, the traffic model anticipates that 27 percent of traffic on Vista Montana would come from south of La Pata. For the purpose of the traffic analysis, the project trip distribution for long range 2035 conditions is based on the results provided by the traffic model.

The following discusses the traffic forecasts without and with the project for long range 2035 conditions.

2035 Traffic Conditions

The long range 2035 Without Project traffic conditions were calculated based on traffic forecasts from the traffic model. The memorandum provided by Urban Crossroads, Inc. (included as Appendix D) includes the peak hour turn movement volumes obtained from the traffic model. Table 11 summarizes the results of the intersection LOS calculations using the ICU methodology to evaluate intersection operations. The long range 2035 LOS calculations include anticipated intersection and roadway improvements in the study area including the intersection configuration at La Pata Avenue at Vista Montanan that is being implemented by OCPW.

Table 11 Long Range 2035 Without Project Conditions Intersection Level of Service

| Intersection | Traffic Control | AM Peak Hour | | PM Peak Hour | |
|---|-----------------|-----------------|-----|-----------------|-----|
| | | ICU or Delay(s) | LOS | ICU or Delay(s) | LOS |
| 1. Antonio Parkway at Cow Camp Road | Signalized | 0.819 | D | 0.882 | D |
| 2. Antonio Parkway/La Pata Avenue at Ortega Highway | Signalized | 0.785 | C | 0.778 | C |
| 3. La Pata Avenue at Vista Montana | Signalized | 0.857 | D | 0.544 | A |
| 4. Via Granada at Vista Montana | Unsignalized | 52.9 | E | 11.5 | B |
| 5. Via Pamplona at Vista Montana | Unsignalized | 46.9 | E | 11.2 | B |
| 6. La Novia Avenue at Ortega Highway | Signalized | 0.792 | C | 0.739 | C |
| 7. La Novia Avenue at San Juan Creek Road | Signalized | 0.583 | A | 0.654 | B |
| 8. Rancho Viejo Road at Ortega Highway | Signalized | 0.809 | D | 0.979 | E |
| 9. Avenida La Pata at Vista Hermosa | Signalized | 0.459 | A | 0.565 | A |
| 10. La Pata Avenue at San Juan Creek Road | Signalized | 0.478 | A | 0.623 | B |
| 11. Avenida La Pata at Las Ramblas | Signalized | 0.633 | B | 0.609 | B |
| 12. Avenida La Pata at Camino Del Rio | Signalized | 0.870 | D | 0.563 | A |

Notes:

- 1 Signalized intersections based on the volume to capacity ratio (V/C).
- 2 Unsignalized intersections based on the delay in seconds at the worst-case approach.
- 3 Intersections that operate at unacceptable LOS are shown in **bold**.
- 4 Intersection LOS calculation worksheets for existing conditions are provided in Appendix D.

5. Environmental Analysis

As shown in Table 11, the following intersections are anticipated to operate at unacceptable LOS without implementation of the proposed project:

4. Via Granada at Vista Montana (AM peak hour)
5. Via Pamplona at Vista Montana (AM peak hour)
8. Rancho Viejo Road at Ortega Highway (PM peak hour)

The intersection operations for the long range 2035 With Project traffic condition were calculated and are provided in Table 12. As shown in this table, the following intersections are anticipated to operate at unacceptable LOS with implementation of the proposed project:

3. La Pata Avenue at Vista Montana (AM peak hour)
4. Via Granada at Vista Montana (AM peak hour)
5. Via Pamplona at Vista Montana (AM peak hour)
8. Rancho Viejo Road at Ortega Highway (PM peak hour)

Table 12 Long Range 2035 With Project Conditions Intersection Level of Service

| Intersection | Traffic Control | AM Peak Hour | | PM Peak Hour | |
|---|-----------------|-----------------|----------|-----------------|----------|
| | | ICU or Delay(s) | LOS | ICU or Delay(s) | LOS |
| 1. Antonio Parkway at Cow Camp Road | Signalized | 0.825 | D | 0.884 | D |
| 2. Antonio Parkway/La Pata Avenue at Ortega Highway | Signalized | 0.794 | C | 0.787 | C |
| 3. La Pata Avenue at Vista Montana | Signalized | 0.906 | E | 0.544 | A |
| 4. Via Granada at Vista Montana | Unsignalized | 70.3 | F | 12.1 | B |
| 5. Via Pamplona at Vista Montana | Unsignalized | 61.9 | F | 11.8 | B |
| 6. La Novia Avenue at Ortega Highway | Signalized | 0.801 | D | 0.743 | C |
| 7. La Novia Avenue at San Juan Creek Road | Signalized | 0.583 | A | 0.656 | B |
| 8. Rancho Viejo Road at Ortega Highway | Signalized | 0.814 | D | 0.982 | E |
| 9. Avenida La Pata at Vista Hermosa | Signalized | 0.507 | A | 0.567 | A |
| 10. La Pata Avenue at San Juan Creek Road | Signalized | 0.511 | A | 0.634 | B |
| 11. Avenida La Pata at Las Ramblas | Signalized | 0.654 | B | 0.609 | B |
| 12. Avenida La Pata at Camino Del Rio | Signalized | 0.876 | D | 0.566 | A |

Notes:

1. Signalized intersections based on the volume to capacity ratio (V/C).
2. Unsignalized intersections based on the delay in seconds at the worst-case approach
3. Intersections that operate at unacceptable LOS are shown in **bold**.
4. Intersection LOS calculation worksheets for existing conditions are provided in Appendix D.

Table 13 summarizes the increases in v/c or delay at each study intersection at long range 2035 conditions due to the project. Based on the impact criteria discussed previously and as shown in this table, the following

5. Environmental Analysis

intersections would operate at unacceptable LOS F and experience increases in V/C or delay above thresholds during the AM Peak hour:

- La Pata Avenue at Vista Montana
- Via Granada at Vista Montana
- Via Pamplona at Vista Montana

Table 13 2035 Intersection Impact Analysis

| Intersection | AM Peak Hour | | | | PM Peak Hour | | | |
|---|-----------------|--------------|--------------|---------------------------|-----------------|--------------|------------|---------------------------|
| | ICU or Delay | | Increase | Potentially Significant ? | ICU or Delay | | Increase | Potentially Significant ? |
| | Without Project | With Project | | | Without Project | With Project | | |
| 1. Antonio Parkway at Cow Camp Road | 0.819 | 0.825 | 0.006 | No | 0.882 | 0.884 | 0.002 | No |
| 2. Antonio Parkway/La Pata Avenue at Ortega Highway | 0.785 | 0.794 | 0.009 | No | 0.778 | 0.787 | 0.009 | No |
| 3. La Pata Avenue at Vista Montana | 0.858 | 0.906 | 0.048 | Yes | 0.544 | 0.514 | - 0.030 | No |
| 4. Via Granada at Vista Montana | 52.9 | 70.3 | 17.4 | Yes | 11.5 | 12.1 | 0.6 | No |
| 5. Via Pamplona at Vista Montana | 46.9 | 61.9 | 15.0 | Yes | 11.2 | 11.8 | 0.6 | No |
| 6. La Novia Avenue at Ortega Highway | 0.792 | 0.801 | 0.009 | No | 0.739 | 0.743 | 0.004 | No |
| 7. La Novia Avenue at San Juan Creek Road | 0.583 | 0.583 | 0.000 | No | 0.654 | 0.656 | 0.002 | No |
| 8. Rancho Viejo Road at Ortega Highway | 0.809 | 0.814 | 0.005 | No | 0.979 | 0.982 | 0.003 | No |
| 9. Avenida La Pata at Vista Hermosa | 0.459 | 0.507 | 0.048 | No | 0.565 | 0.567 | 0.002 | No |
| 10. La Pata Avenue at San Juan Creek Road | 0.478 | 0.511 | 0.033 | No | 0.623 | 0.634 | 0.011 | No |
| 11. Avenida La Pata at Las Ramblas | 0.633 | 0.654 | 0.021 | No | 0.609 | 0.609 | 0.000 | No |
| 12. Avenida La Pata at Camino Del Rio | 0.870 | 0.876 | 0.006 | No | 0.563 | 0.566 | 0.003 | No |

Notes:

- 1 Signalized intersections based on the volume to capacity ratio (V/C).
- 2 Unsignalized intersections based on the delay in seconds at the worst-case approach
- 3 Intersections that operate at unacceptable LOS are shown in **bold**.
- 4 Intersection LOS calculation worksheets for existing conditions are provided in Appendix D.

The following discusses the impacts at each intersection affected and potential mitigation measures.

Via Granada at Vista Montana and Via Pamplona at Vista Montana

The intersections of Via Granada at Vista Montana and Via Pamplona at Vista Montana are controlled by a stop sign on the southbound approach. A review of the intersection LOS calculations for these two intersection shows that the only approach that is anticipated to operate at LOS F are the northbound left turn movements headed from the existing residential area to the high school. These vehicles already experience delays to make the northbound left turn. A review of the traffic counts and at the intersection turn movement forecasts show that the deficient approach affects three vehicles at Via Pamplona and one vehicle

5. Environmental Analysis

at Via Granada. The northbound right turns would operate at LOS B at these intersections, as the vehicles egressing from Via Granada and Via Pamplona would be able to make a right turn into Vista Montana without major delays.

In addition to the intersection LOS evaluation, a signal warrant analysis was performed to evaluate the potential need for the installation of a traffic signal at the unsignalized intersections of Via Granada at Vista Montana, and Via Pamplona at Vista Montana. The methodology for the signal warrant analysis is included in the 2014 California Manual on Uniform Traffic Control Devices. The manual states that if one or more of the criteria for signal warrants is met, an engineering study would be required to evaluate other factors to determine if an intersection must be signalized. The traffic analysis conducted for the proposed project uses Warrant 3 criteria, which is based on traffic volumes entering the intersections during the peak hour. Due to the existing low volumes at the Via Pamplona and Via Granada, the warrants are not met.

Because the long delays at these intersections would continue to occur only during student drop-off times and would affect a small number of vehicles, this is not considered a significant impact. No mitigation measures would be required.

La Pata Avenue at Vista Montana

The intersections of La Pata Avenue at Vista Montana currently operates at unacceptable LOS E in the AM peak hour and A during the PM peak hour. This intersection is going to be improved as part of the La Pata Avenue/Camino Del Rio extension project, the intersection improvement is anticipated to be finalized in the fall of 2016. Orange County Public Works prepared an intersection capacity study to identify improvements needed to increase capacity at the intersection. This study recommended the following improvements at the intersection (OCPW 2015):

- Construct a free-right turn for the southbound approach
- Increase the northbound left turn pocket length by 60 feet
- Change the southbound left turn signal phasing

These improvements would increase the capacity and alleviate congestion at the intersection. The following discusses the anticipated LOS without and with project for near term (project opening year) and long range 2035 conditions.

Near Term Project Opening Year

The La Pata Avenue at Vista Montana intersection analysis prepared by OCPW was prepared assuming the current school capacity without the addition of 700 students related to the proposed project. The evaluation utilized the Highway Capacity Manual (HCM) method to evaluate traffic operations during the AM peak hour. The OCPW analysis concluded that with the improvements proposed, the intersection would operate at LOS D at project opening conditions in 2016 with the La Pata gap connector and the intersection improvements in place.

5. Environmental Analysis

Utilizing the ICU method, the intersection improvements identified above would improve the operation at the La Pata Avenue at Vista Montana intersection to acceptable LOS B during the AM peak hour, without and with the additional 700 students generated under the proposed project. During the PM peak hour, the intersection is anticipated to operate at acceptable LOS A without and with the project. To verify the results and to compare with the methodology utilized in the intersection capacity study by OCPW, the intersection analysis for this intersection was also calculated using the HCM method for the AM peak hour. Using the HCM method, the intersection would operate at acceptable LOS D without and with the proposed project during the AM peak hour. With the additional traffic from the proposed project, the intersection would continue to operate at acceptable LOS D. Under near term 2016 conditions, with the improvements to be implemented by OCPW, the intersection is anticipated to operate at acceptable LOS and project impacts would be less than significant.

Long Range 2035

The intersection analysis prepared by OCPW to evaluate traffic operations during the AM peak hour using the HCM method identified that the La Pata Avenue at Vista Montana intersection would operate at unacceptable LOS F in long range conditions.

Utilizing the ICU method to calculate intersection LOS, during the PM peak hour the intersection is anticipated to operate at acceptable LOS A without and with the project. Without the proposed project, the intersection is anticipated to operate at LOS D in the AM peak hour during student drop-off under long range conditions. The proposed project would result in an increase in v/c of 0.048, causing the intersection to operate at unacceptable LOS E. Because the intersection would operate at unacceptable LOS and the v/c increase would be greater than 0.01, this would be considered a significant impact during the AM peak hour.

Mitigation Measures

It is anticipated that with the improvements being implemented by OCPW, the La Pata Avenue/Vista Montana intersection would operate at an acceptable LOS in the near term conditions. The proposed project's impacts at deficient intersection operations would occur over time as background traffic due to ambient growth and cumulative projects would increase traffic volumes in the area. However, with implementation of Mitigation Measures TRANS-1 and TRANS-2, traffic impacts would be reduced to less than significant levels.

TRANS-1. The District shall prepare and implement a traffic management plan to improve student drop-off procedures, improve traffic flow, and reduce drop-off times and queues. The traffic management plan shall consider and include actions where appropriate, such as:

- Move the student drop off area toward the northeast area of the parking lot near the baseball field to allow for additional queuing space.
- Student drop-off and pick-up areas shall be clearly designated and marked with signage and curb paints.
- Provide designated crosswalks from the parking lot areas to the building areas.

5. Environmental Analysis

- Provide training for and increase the number of traffic monitors to direct traffic and pedestrians and assist in student drop-off areas.
- Identify bottlenecks and restrict some turns at driveways in the parking lot areas and access driveways to reduce potential conflicts.
- Designate a school official to serve as the traffic and parking manager to facilitate the recommendations included in the traffic management plan.
- Educate parents and students about the student drop-off and pick-up procedures.
- Enforce compliance of the drop-off procedures to ensure that parents do not drop off and pick up at prohibited locations and that pedestrians utilize designated crosswalks.
- Consider policies to promote ride sharing/carpools to reduce the number of private automobile trips.

TRANS-2. The District shall monitor traffic conditions in the study area to ensure that the La Pata Avenue/Vista Montana intersection is operating at an acceptable level of service (LOS D or better) condition during the AM and PM peak hours. If the intersection is found to be operating at an unacceptable LOS (LOS E or worse), the District shall implement measures to reduce the amount traffic during student drop-off times. Measures may include staggering class times by having a higher percentage of enrolled students to start classes at Period 0, bussing students to school, and/or widening of the intersection. If traffic deteriorates and none of the measures described above is deemed feasible, additional capacity could be provided by implementing the following physical improvements:

- Construct an additional eastbound right turn lane, or
- Construct an additional northbound left turn lane

With implementation of an additional eastbound right turn lane, or an additional northbound left turn lane, the intersection would operate at acceptable LOS C. It shall be noted that these improvements would require right-of-way acquisition and a reconfiguration of other geometric features of the intersection. Implementation of one of the aforementioned improvements would mitigate the impacts to allow the intersection to operate at LOS C.

b) Conflict with an applicable congestion management program, including, but not limited to level of service standards and travel demand measures, or other standards established by the county congestion management agency for designated roads or highways?

Less Than Significant Impact With Mitigation. As Orange County's Congestion Management Agency, OCTA is responsible for the administration of the Congestion Management Program (CMP). The CMP establishes that the LOS should be LOS E or better for CMP roadways and intersections. La Pata Avenue, Ortega Highway, Vista Hermosa, La Novia, San Juan Creek Road, Camino Del Rio and Camino Las Ramblas

5. Environmental Analysis

are in the Master Plan of Arterial Highways facility in the project study area. As discussed above, all intersections except for La Pata Avenue would operate at acceptable LOS. With implementation of Mitigation Measures TRANS-1 and TRANS-2 identified in Section 5.16 (a), above, all intersections would operate at acceptable LOS. Therefore, impacts to CMP facilities would be reduced to a level of less than significant.

c) Result in a change in air traffic patterns, including either an increase in traffic levels or a change in location that results in substantial safety risks?

No Impact. Project development would not result in a change in air traffic patterns. The nearest public-use airport to the project site is John Wayne Airport, at approximately 18 miles to the northwest. Therefore, no impact would occur and no mitigation measures are necessary.

d) Result in a change in air traffic patterns, including either an increase in traffic levels or a change in location that results in substantial safety risks?

No Impact. Project development would not result in a change in air traffic patterns. The nearest public-use airport to the project site is John Wayne Airport, at approximately 18 miles to the northwest. Therefore, no impact would occur and no mitigation measures are necessary.

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

Less Than Significant Impact. Project development would not add incompatible uses to area roadways; the proposed project involves the development of institutional uses within an existing high school campus. Project development would also not result in the addition of dangerous intersections within the campus. Intersections of the proposed internal drive aisles and driveways would all be perpendicular or at angles of over approximately 70 degrees. Additionally, the new drive aisles would be designed as a narrow low-speed internal drive aisle that would be safe for pedestrian crossing, while maintaining an efficient circulation system for vehicles. Therefore, impacts would be less than significant and no mitigation measures are necessary.

f) Result in inadequate emergency access?

No Impact. The proposed project would introduce new onsite vehicular access and circulation improvements, including north-south and east-west drive aisles and the extension of an existing fire lane passing east-west through the southern part of the campus (see Figure 5, *Campus Site Plan*). Fire access to the proposed classroom building would be from proposed fire lanes south, southeast, and southwest of the building.

To address fire and emergency access needs, the new drive aisles and circulation improvements would be designed and constructed in accordance with all applicable OCEFA design standards for emergency access (e.g., minimum lane width and turning radius). Development of the proposed project's fire access and circulation improvements would also be required to comply with requirements for fire apparatus access roads, as set forth in Section 503 (Fire Apparatus Access Roads) of the 2013 California Fire Code (California Code of Regulations, Title 24, Part 9). For example, the drive aisles would be designed to meet the minimum width

5. Environmental Analysis

requirements of OCFA to allow the passing of emergency vehicles; as shown in Figure 5, fire truck access would be provided via a 20-foot wide fire access lane.

Additionally, OCFA review of emergency access roads on project site plans is required by the Division of the State Architect. All site and building improvements proposed under the project would be subject to review and approval by OCFA. Furthermore, implementation of the proposed project would not require road closures or otherwise impact the functionality of Vista Montana, La Pata Avenue or the schools internal circulation system as public safety access routes.

Therefore, project development would not result in inadequate emergency access. No impact would occur and no mitigation measures are necessary.

g) Conflict with adopted policies, plans, or programs regarding public transit, bicycle, or pedestrian facilities, or otherwise decrease the performance or safety of such facilities?

No Impact. The proposed project would not displace or interfere with the operation of any transit stop or bicycle or pedestrian facility and would not generate a demand for transit service that would adversely impact alternative travel modes. There are no designated bicycle lanes or bus stops or routes in the project vicinity, and no public sidewalks occur along La Pata Avenue, which is the only road that provides access to the school campus from within the City. Given the lack of sidewalks, bicycle lanes and transit service in the project vicinity, the vast majority of trips to the school are via private automobiles; implementation of the proposed project would not change this fact. However, staff and students on campus would continue to have uninterrupted access to the pedestrian walkway system on campus, as well as the pedestrian improvements that would be implemented under the proposed project. Project implementation would also not interrupt or impede student use of the unpaved trail that connects the school campus to the residential neighborhoods to the north. Therefore, no impacts would occur and no mitigation measures are necessary.

5.17 UTILITIES AND SERVICE SYSTEMS

a) Exceed waste water treatment requirements of the applicable Regional Water Quality Control Board?

No Impact. While the City of San Juan Capistrano operates the local wastewater collection system that serves the project site, wastewater generated in the City (including the project site) flows through this system via regional trunk lines to the J.B. Latham Wastewater Treatment Plant (JBLWTP) in the City of Dana Point. The JBLWTP is owned and operated by the South Orange County Wastewater Authority (SOCWA), whom is required by federal and state law to meet applicable standards of treatment plant discharge requirements. Specifically, OCSD's wastewater treatment system is subject to a National Pollution Discharge Elimination System (NPDES) Permit (No. CA0107417) issued by the San Diego Regional Water Quality Control Board in 2012 under Order No. R9-2012-0012 (SDRWQCB 2012); the NPDES permit regulates the amount and type of pollutants that the system can discharge into receiving waters. SOCWA's wastewater treatment system is operating and would continue to operate subject to state waste discharge requirements and federal NPDES permit requirements, as set forth in the aforementioned permit and order numbers. The additional wastewater that would be generated by the new classroom building that would be developed under the proposed project

5. Environmental Analysis

and treated by SOCWA would not impede SOCWA's ability to continue to meet its wastewater treatment requirements. Therefore, impacts on SOCWA's wastewater treatment requirements would be less than significant and no mitigation measures are necessary.

- b) Require or result in the construction of new water or waste water treatment facilities or expansion of existing facilities, the construction of which could cause significant environmental effects?**

Less than Significant Impact.

Water Treatment Facilities

Water treatment facilities filter and/or disinfect water before it is delivered to customers. The City of San Juan Capistrano Water Division supplies water to the existing school. The City's water supplies are local groundwater from the San Juan Valley Groundwater Basin, and imported water from northern California and the Colorado River purchased through the Metropolitan Water District of Southern California (MWD; Malcolm Pirnie 2011). Imported water is treated at MWD's Robert B. Diemer Treatment Plant located north of Yorba Linda, which has capacity of 520 million gallons per day (mgd; MWD 2016). Groundwater is treated at the City's Groundwater Recovery Plant, which treats groundwater for high levels of iron, manganese, and total dissolved solids and has a 5 mgd capacity (Malcolm Pirnie 2011).

The proposed project would result in an increase in student numbers at the school as a result of the new classroom building. However, the increase in the number of students would lead to a minimal increase in potable water treatment needs over existing conditions and would therefore, not require or result in the construction of new or expansion of existing water treatment facilities. Additionally, based on the capacity of the water treatment facilities noted above, there is adequate water treatment capacity in the region to continue to serve San Juan Hill High School's potable water treatment needs, including those of the new classroom building. Therefore, impacts would be less than significant and no mitigation measures are necessary.

Wastewater Treatment Facilities

As stated above, wastewater from the City of San Juan Capistrano (including the project site) is treated at JBLWTP in the City of Dana Point. The treatment plant's capacity is 13 mgd, with an average daily flow of 9.44 mgd (SOCWA 2016). The proposed project would result in an increase in student numbers at the school as a result of the new classroom building. However, the increase in the number of students would lead to a minimal increase in wastewater treatment needs over existing conditions and would therefore, not require or result in the construction of new or expansion of existing wastewater treatment facilities. Additionally, based on the capacity of JBLWTP, there is adequate wastewater treatment capacity to continue to serve San Juan Hill High School's potable water treatment needs, , including those of the new classroom building. Therefore, impacts would be less than significant and no mitigation measures are necessary.

5. Environmental Analysis

c) Require or result in the construction of new storm water drainage facilities or expansion of existing facilities, the construction of which could cause significant environmental effects?

Less than Significant Impact. Project implementation would not substantially change the drainage pattern onsite, as runoff would continue to be conveyed offsite in the same manner, via the existing onsite drainage improvements. Improvements under the proposed project would also not result in an increase of the amount of impervious surfaces over existing conditions and therefore, is not anticipated to increase the rate or amount of runoff in comparison to existing conditions. The proposed project would include installation of a storm drain from the edge of the new classroom building to a storm drain connection on the school's property line. The proposed storm drain would be within the project site footprint and would connect to the existing storm drain system onsite. Additionally, the project site and surrounding area have already been planned and engineered to accommodate storm water runoff. Therefore, project development would not require or result in the construction of new storm water drainage facilities or expansion of existing facilities. Impacts would be less than significant and no mitigation measures are necessary.

d) Have sufficient water supplies available to serve the project from existing entitlements and resources, or are new or expanded entitlements needed?

Less Than Significant Impact. The City's Water Division supplies water to the existing school. The City's water supplies are local groundwater from the San Juan Valley Groundwater Basin, and imported water from northern California and the Colorado River purchased through the Metropolitan Water District of Southern California (Malcolm Pirnie 2011). Estimated water supplies in the City's water system through 2035 for normal, single dry year, and multiple dry year conditions are provided in Table's 3-12 (Projected Normal Water Supply and Demand [AFY]), 3-13 (Projected Single-Dry Year Water Supply and Demand [AFY]), and 3-14, Projected Multiple Dry Year Period Supply and Demand [AF]), respectively, of the City's 2010 Urban Water Management Plan (UWMP).

The proposed project would result in an increase in student numbers at the school as a result of the new classroom building. However, the increase in the number of students would not lead to a significant increase in water demand over existing conditions. The proposed project's water supply increase is also not considered substantial since the improvements that would occur under the project would be consistent with the City's General Plan land use plan; specifically, the land use(s) planned and envisioned for the project site under the General Plan. The City's General Plan forms the basis for the City's Water Division for evaluating the service area's future water demands as a part of its 2010 WMP and subsequent updates.

Additionally, per its 2010 UWMP, the City's Water Division forecast that it has adequate water supplies to meet demands in its service area through the 2015–2035 period in both normal and multiple dry years (see Table's 3-12, 3-13 and 3-14 of the 2010 UWMP). Based on the preceding, the City's water supplies are expected to be adequate to meet all City demands, including those of the improvements that would be accommodated under the proposed project, and the proposed project would not require the City's Water Division to obtain new or expanded water supplies.

Additionally, following Governor Brown's recently declared State of Emergency, the Governor issued the fourth in a series of Executive Orders on actions necessary to address California's severe drought conditions,

5. Environmental Analysis

which directed the State Water Resource Control Board (SWRCB) to implement mandatory water reductions in urban areas to reduce potable urban water usage by 25 percent statewide. On May 5, 2015, the State Water Board adopted an emergency conservation regulation in accordance with the Governor's directive. The provisions of the emergency regulation went into effect on May 18, 2015.

Per the emergency regulation, San Juan Capistrano is required to reduce water use by 28 percent from water usage in 2013. The 28 percent reduction requirement became effective June 1, 2015, and is calculated by comparing current water consumption to the water use for the same month in 2013. In response to these recent actions and in order to help the City meet its water reduction percentage and help reduce daily water use, a number of mandatory restrictions have gone into effect in the City, as adopted on June 2, 2015, under the City's Drought Urgency Ordinance No. 1024. The ordinance sets the days of the week for watering and establishes drought limits for water use. Following is a summary of some of the mandatory water conservation measures that are in effect City-wide and applicable to San Juan Hills High School:

- **Lawn watering and landscape irrigation.** Limited to two days per week maximum; no irrigation during rain or within 48 hours after rain; automatic sprinklers should be set to run after 6PM and finish before 9AM.
- **Runoff to street.** Runoff to the street is prohibited. This includes water from any hose, pipe, valve, faucet, sprinkler, or irrigation device into any storm water drainage system, drain, gutter or street.
- **Pavement/surface washing.** Water shall not be used to wash down sidewalks, driveways, parking areas, tennis courts, patios or other paved areas except to alleviate immediate fire or sanitation hazards.
- **Cleaning of structures.** Cleaning of structures, using water from a hose, shall be prohibited.
- **Leaks.** All water leaks shall be repaired immediately.

The mandatory water restrictions set by the City help San Juan Capistrano achieve its required water reduction target of 28 percent. Through implementation of these mandatory water restrictions, for the period of June to October 2015 (compared to 2013 usage), San Juan Capistrano's total water reduction was at approximately 27 percent (City of San Jan Capistrano 2016). Therefore, the City is currently close to meeting its water reduction target of 28 percent. The District would be required to comply with all applicable mandatory water restrictions and thereby, help the City in continuing to strive in meeting its water reduction target.

Furthermore, as noted in Section 3.1.5, *Sustainability*, the proposed project would be designed to include a number of high performance design strategies/elements (which would in turn help reduce water usage), including the use of drought tolerant and native species of plants and trees; high efficiency irrigation technology; and low water use plumbing fixtures.

5. Environmental Analysis

Finally, development of the new classroom building under the proposed project would be required to comply with the provisions of the most current California Green Building Standards Code (CALGreen), which contains requirements for indoor water use reduction and site irrigation conservation.

Therefore, project-related impacts on water supplies would be less than significant and no mitigation measures are necessary.

- e) **Result in a determination by the waste water 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. See response to Section 5.17(b), above.

- f) **Be served by a landfill with sufficient permitted capacity to accommodate the project's solid waste disposal needs?**

Less Than Significant Impact. In 2014, the latest year for which data are available, approximately 96 percent of the solid waste generated in the City of San Juan Capistrano was disposed of at two facilities, which are shown in Table 14. The Prima Deshecha Sanitary Landfill in San Juan Capistrano and the Frank Bowerman Sanitary Landfill near the City of Irvine are both owned and operated by OC Waste and Recycling.

Table 14 Landfills Serving San Juan Capistrano

| Landfill | Remaining Capacity (in cubic yards) | Maximum Permitted Daily Disposal (in tons) | Average Daily Disposal (in tons) | Residual Daily Disposal Capacity (in tons) | Estimated Closing Date |
|-------------------------------------|--|--|--|--|---------------------------|
| Prima Deshecha Sanitary Landfill | 87,400,000 | 4,000 | 1,456 | 2,544 | 2067 |
| Frank Bowerman Sanitary Landfill | 205,000,000 | 11,500 | 5,357 | 6,143 | 2053 |
| Total | 292,400,000 | 15,500 | 6,813 | 8,687 | Not applicable |

Sources: CalRecycle 2016b; CalRecycle 2016c; CalRecycle 2016d; CalRecycle 2016e

Following is a discussion of the potential impacts on landfill capacity as a result of the construction and operational phases of the proposed project.

Construction-Related Solid Waste Generation

Development of the proposed project would involve the demolition of existing parking areas and drive aisles and other site improvements, and removal of a number of ornamental trees (site features and improvements to be demolished or removed are shown in Figures 3, *Aerial Photograph*, and 4, *Site Photographs*). The proposed project's construction and demolition activities would result in a temporary generation of solid waste.

As demonstrated in Table 11, there is adequate landfill capacity in the region to serve the proposed project's construction-related solid waste needs, and project construction activities would not require additional landfill

5. Environmental Analysis

capacity. Solid waste generated during the proposed project's construction phase would also be temporary, and would cease upon completion of the construction phase.

Additionally, development of the proposed project would be required to comply with the provisions of the most current California Green Building Standards Code (CALGreen), which outlines requirements for construction waste reduction, material selection, and natural resource conservation.

Therefore, no significant construction-related impacts on landfill capacity would occur and no mitigation measures are necessary.

Operational-Related Solid Waste Generation

The proposed project would result in an increase in student numbers at the school as a result of the new classroom building. However, the increase in the number of students would not lead to a significant increase in solid waste generation over existing conditions. The additional solid waste generation under the proposed project would be a negligible increase in terms of impacting OC Waste and Recycling's landfill capacities. As demonstrated in Table 11, there is more than adequate daily and total landfill capacity in the landfills to serve the proposed project's increase in operational-related solid waste disposal needs, and project development would not require additional landfill capacity.

Therefore, no significant operational-related impacts on landfill capacity would occur and no mitigation measures are necessary.

g) Comply with federal, state, and local statutes and regulations related to solid waste?

No Impact. The following federal and state laws and regulations govern solid waste disposal. The EPA administers the Resource Conservation and Recovery Act of 1976 and the Solid Waste Disposal Act of 1965, which govern solid waste disposal. In the State of California, Assembly Bill 939 (Integrated Solid Waste Management Act of 1989; Public Resources Code 40050 et seq.) required every California city and county to divert 50 percent of its waste from landfills by the year 2000 by such means as recycling, source reduction, and composting. In addition, AB 939 requires each county to prepare a countywide siting element specifying areas for transformation or disposal sites to provide capacity for solid waste generated in the county that cannot be reduced or recycled for a 15-year period. AB 1327, the California Solid Waste Reuse and Recycling Access Act of 1991, requires local agencies to adopt ordinances mandating the use of recyclable materials in development projects.

Compliance with AB 939 is measured in part by actual disposal rates compared to target disposal rates; actual rates at or below target rates are consistent with AB 939. Actual disposal rates for the City of San Juan Capistrano in 2014, the latest year for which data is available, were 5.2 pounds per day (ppd) per resident and 14.9 ppd per employee; target disposal rates were 11.8 ppd per resident and 33.8 ppd per employee (CalRecycle 2016f). Therefore, disposal rates in the City in 2014 were consistent with AB 939.

The proposed project would be required to comply with all applicable laws and regulations governing solid waste, including those listed above, and in doing so, not affect the City's ability to continue to meet the

5. Environmental Analysis

required AB 939 waste diversion requirements. Therefore, impacts related to solid waste statutes and regulations would not occur and no mitigation measures are necessary.

5.18 MANDATORY FINDINGS OF SIGNIFICANCE

- a) **Does the project have the potential to 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, 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. The project site is currently developed and disturbed; it houses the campus of San Juan Hills High School (see Figure 3, *Aerial Photograph*). Onsite vegetation includes a number of ornamental trees, shrubs and groundcover throughout the campus. The project site does not contain any sensitive natural resources that could be disturbed as a result of project development. As demonstrated in Section 5.4, *Biological Resources*, the proposed project would not result in the reduction of the habitat of fish or wildlife species; cause a fish or wildlife population to drop below self-sustaining levels; threaten to eliminate a plant or animal community; or reduce the number or restrict the range of a rare or endangered plant or animal. Impacts to nesting habitat for migratory birds would be reduced to a less than significant with compliance of the MBTA. Additionally, as demonstrated in Section 5.5, *Cultural Resources*, no historic resources were identified onsite, and therefore the project does not have the potential to eliminate important examples of California history or prehistory. Therefore, impacts would be less than significant.

- 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. The proposed project involves the introduction of a new classroom building and other site improvements on the existing campus of San Juan Hills High School. The proposed improvements would be consistent with those permitted under the General Plan and zoning designations of the project site and with those existing onsite. Therefore, the proposed project would not weight short-term goals above long-term environmental goals of the City. The issues relevant to the proposed project are also very localized and confined to the immediate project area. Additionally, the proposed project is located in an urbanized area of the City where supporting utility infrastructure (e.g., water, wastewater, and drainage) and services (e.g., solid waste collection) currently exists. Furthermore, the proposed project is generally too small in scope to appreciably contribute to existing cumulative impacts, and is located in such an area where little new development is occurring that may combine cumulatively. In consideration of the preceding factors, the proposed project’s contribution to cumulative impacts would be rendered less than significant; therefore, project impacts would not be cumulatively considerable.

5. Environmental Analysis

- 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. As discussed in the respective topical sections of this Initial Study, implementation of the proposed project would not result in any potentially significant impacts that may cause adverse effects on human beings. Therefore, the proposed project would have no substantial adverse effects on human beings.

6. References

- American National Standards Institute/Acoustical Society of America (ANSI/ASA). 2015. S12.60-2010/Part 1 American National Standard Acoustical Performance Criteria, Design Requirements, and Guidelines for Schools, Part 1: Permanent Schools and ANSI/ASA S12.60-2009/Part 2 American National Standard Acoustical Performance Criteria, Design Requirements, and Guidelines for Schools, Part 2: Relocatable Classroom Factors.
- Bay Area Air Quality Management District (BAAQMD). 2011, Revised. California Environmental Quality Act Air Quality Guidelines.
- Bies, David A., and Colin H. Hansen. 2009. Engineering Noise Control: Theory and Practice. 4th ed. New York: Spon Press.
- Bolt Beranek and Newman, Inc. 1971. Noise from Construction Equipment and Operations, Building Equipment and Home Appliances. Prepared for the United States Environmental Protection Agency. Washington, DC.
- California Air Pollution Control Officers Association (CAPCOA). 2013. California Emissions Estimator Model (CalEEMod). Version 2013.2.2. Prepared by: ENVIRON International Corporation and the California Air Districts.
- California Air Resources Board (CARB). 2014a, August 22. Area Designations Maps/State and National. <http://www.arb.ca.gov/desig/adm/adm.htm>.
- . 2014b, May 15. Proposed First Update to the Climate Change Scoping Plan: Building on the Framework, <http://www.arb.ca.gov/cc/scopingplan/scopingplan.htm> x.
- . 2013, October 23. Proposed 2013 Amendments to Area Designations for State Ambient Air Quality Standards. <http://www.arb.ca.gov/regact/2013/area13/area13isor.pdf>.
- . 2008, October. Climate Change Proposed Scoping Plan, a Framework for Change.
- . 2005, April. Air Quality And Land Use Handbook: A Community Health Perspective. <http://www.arb.ca.gov/ch/handbook.pdf>.
- California Department of Education, Educational Demographics Unit (CDE). 2016. Enrollment by Ethnicity for 2014-15: School Enrollment by Ethnicity (0113381 – San Juan Hills High). <http://dq.cde.ca.gov/dataquest/Enrollment/EthnicEnr.aspx?cYear=2007-08&cGender=B&cType=ALL&cChoice=SchEnrEth&cSelect=30664640113381%2cSan+Juan+Hills+High>.

6. References

- California Department of Forestry and Fire Prevention (CAL FIRE). 2011, October. Very Fire Hazard Severity Zones in LRA: Orange County.
<http://ocplanning.net/civicax/filebank/blobdload.aspx?BlobID=8755..>
- California Department of Resources Recycling and Recovery (CalRecycle). 2016a. Facility/Site Summary Details: La Pata Avenue Greenwaste Facility.
<http://www.calrecycle.ca.gov/SWFacilities/Directory/30-AB-0364/Detail/>.
- . 2016b. Facility/Site Summary Details: Prima Deshecha Sanitary Landfill.
<http://www.calrecycle.ca.gov/SWFacilities/Directory/30-AB-0019/Detail/>.
- . 2016c. Facility/Site Summary Details: Frank Bowerman Sanitary Landfill.
<http://www.calrecycle.ca.gov/SWFacilities/Directory/30-AB-0360/Detail/>.
- . 2016d. January 12. Landfill Tonnage Reports.
<http://www.calrecycle.ca.gov/SWFacilities/Landfills/Tonnages/>.
- . 2016e. Jurisdiction Disposal by Facility.
<http://www.calrecycle.ca.gov/LGcentral/Reports/DRS/Destination/JurDspFa.aspx>.
- . 2016f. Jurisdiction Diversion/Disposal Rate Summary (2007 - Current).
<http://www.calrecycle.ca.gov/LGCentral/reports/diversionprogram/JurisdictionDiversionPost2006.aspx>.
- California Department of Toxic Substances and Control (DTSC). 2007. EnviroStor.
<http://www.envirostor.dtsc.ca.gov/public/>.
- . 2003. Phase I Environmental Site Assessment Determination, Capistrano Unified School District, Proposed San Juan Hills School Site.
- California Department of Transportation (Caltrans). 2011, September 7. California Scenic Highway Mapping System. http://www.dot.ca.gov/hq/LandArch/16_livability/scenic_highways/index.htm.
- . 2009, November. Technical Noise Supplement (“TeNS”). Prepared by ICF International.
- . 2004, June. Transportation- and Construction-Induced Vibration Guidance Manual. Prepared by ICF International.
- California Geological Survey (CGS). 2015, November 24. Fault Activity Map of California (2010).
<http://maps.conservation.ca.gov/cgs/fam/>.
- . 2002, September 23. Seismic Hazard Zones Map, Canada Gobernadora Quadrangle.
http://gmw.consrv.ca.gov/shmp/download/quad/CANADA_GOBERNADORA/maps/ozn_cana.pdf.

6. References

- . 1994. Generalized Mineral Land Classification Map of Orange County. Open File Report 94-15, Plate 1. ftp://ftp.consrv.ca.gov/pub/dmg/pubs/ofr/OFR_94-15/OFR_94-15_Plate_1.pdf.
- California Resource Agency, Department of Conservation (CRADC). 2016. California Important Farmland Finder. <http://maps.conservation.ca.gov/ciff/ciff.html>.
- California Stormwater Quality Association (CASQA). 2003, January. Stormwater Best Management Practice Handbook: Construction.
- Federal Emergency Management Agency (FEMA). 2016, January 9. FEMA's National Flood Hazard Layer (Official). <http://fema.maps.arcgis.com/home/webmap/viewer.html?webmap=cbe088e7c8704464aa0fc34eb99e7f30&extent=-117.67174902661188,33.50092563695394,-117.63020697338814,33.512734249103445>.
- Federal Transit Administration (FTA). 2006, May. Transit Noise and Vibration Impact Assessment. United States Department of Transportation. FTA-VA-90-1003-06.
- Governor's Office of Planning and Research (OPR). 2008, June. Technical Advisory, CEQA and Climate Change: Addressing Climate Change Through CEQA Review. <http://www.opr.ca.gov/ceqa/pdfs/june08-ceqa.pdf>.
- Harris, Cyril M. 1998. Handbook of Acoustical Measurements and Noise Control. 3rd ed. Woodbury, NY: Acoustical Society of America.
- Los Angeles Unified School District (LAUSD). 2015, September. Standard Conditions of Approval, Noise.
- Malcolm Pirnie. 2011, June. City of San Juan Capistrano 2010 Urban Water Management Plan. <http://www.water.ca.gov/urbanwatermanagement/2010uwmps/San%20Juan%20Capistrano,%20City%20of/San%20Juan%20Capistrano%202010%20UWMP%20final%20draft.pdf>.
- Metropolitan Water District of Southern California (MWD). 2016. Deimer Treatment Plan. <http://www.mwdh2o.com/AboutYourWater/Water-Quality/robert-b-diemer>.
- National Pipeline Mapping System (NPMS). 2016. NPMS Public Map Viewer. <https://www.npms.phmsa.dot.gov/PublicViewer/>.
- NMG Geotechnical, Inc. (NMG). 2015, December 14. Geotechnical Investigation.
- Office of Environmental Health Hazard Assessment (OEHHA). 2015, February. Air Toxics Hot Spots Program Risk Assessment Guidelines. Guidance Manual for Preparation of Health Risk Assessments. http://oehha.ca.gov/air/hot_spots/2015/2015GuidanceManual.pdf.
- Office of Mine Reclamation (OMR). 2016, January 9. Mines Online. <http://maps.conservation.ca.gov/mol/mol-app.html>.

6. References

- Orange County Fire Authority (OCFA). 2016. OCFA Fire Stations.
<http://www.ocfa.org/AboutUs/StationLocator/stationlocator-map.html>.
- Orange County Public Works (OCPW). 2012, June 5. General Plan Resources Element Figure VI-3: Orange County Mineral Resources. <http://ocplanning.net/civica3/filebank/blobdownload.aspx?blobid=8625>.
- San Diego Regional Water Quality Control Board (SDRWQCB). 2012. Order No. R9-2012-0012, NPDES No. CA0107417: Waste Discharge Requirements for the South Orange County Wastewater Authority Discharge to the Pacific Ocean through the San Juan Creek Ocean Outfall.
http://www.waterboards.ca.gov/rwqcb9/board_decisions/adopted_orders/2012/R9-2012-0012.pdf.
- San Juan Capistrano, City of. 2016. Drought 2015: Water Conservation - How Are We Doing?
<http://sanjuancapistrano.org/Index.aspx?page=1587>.
- South Coast Air Quality Management District (SCAQMD). 2013, February. Final 2012 Air Quality Management Plan. <http://www.aqmd.gov/home/library/clean-air-plans/air-quality-mgt-plan>.
- . 2011. Fact Sheet for Applying CalEEMod to Localized Significance Thresholds.
<http://www.aqmd.gov/docs/default-source/ceqa/handbook/localized-significance-thresholds/calmod-guidance.pdf>.
- . 2008, July. Final Localized Significance Threshold Methodology.
<http://www.aqmd.gov/docs/default-source/ceqa/handbook/localized-significance-thresholds/final-lst-methodology-document.pdf>.
- . 1993. California Environmental Quality Act Air Quality Handbook.
- South Orange County Wastewater Authority (SOCWA). 2016. J.B. Latham Treatment Plant.
<https://www.socwa.com/About/JBLathamTreatmentPlant.aspx>.
- Southern California Association of Governments (SCAG). 2012, April. 2012-2035 Regional Transportation Plan/ Sustainable Communities Strategy (RTP/SCS). <http://rtpscs.scag.ca.gov/Pages/default.aspx>.
- State Water Resources Control Board (SWRCB). 2016a. Groundwater Information Center Interactive Map Application. <https://gis.water.ca.gov/app/gicima/>.
- . 2016b. GeoTracker. <http://geotracker.waterboards.ca.gov/>.
- Thalheimer, E. 2000. Construction Noise Control Program and Mitigation Strategy at the Central Artery/Tunnel Project. Institute of Noise Control Engineering.
- United States Environmental Protection Agency (USEPA). 2016. EnviroMapper.
<http://www.epa.gov/emefdata/em4ef.home>.

6. References

- . 1978, November. Protective Noise Levels. EPA 550/9-79-100. (Condensed version of 1971 and 1974 documents.)
- . 1974, March. Information on Levels of Environmental Noise Requisite to Protect Public Health and Welfare with an Adequate Margin of Safety. Washington, D.C.: U.S. EPA Office of Noise Abatement and Control
- . 1971, December. Noise from Construction Equipment and Operations, Building Equipment, and Home Appliances. Prepared by Bolt Beranek and Newman (Cambridge, MA) for the U.S. EPA Office of Noise Abatement and Control. Washington, D.C.
- Wright, Christopher (Associate Planner). 2016, February 24. Email. City of San Clemente Community Development Department.

6. References

This page intentionally left blank.

7. List of Preparers

LEAD AGENCY

Capistrano Unified School District

John Forney, Executive Director, Facilities, Maintenance & Operations

CJ Knowland, Construction Manager

CEQA CONSULTANT

PlaceWorks

Dwayne Mears, AICP, Principal

Nicole Vermilion, Associate Principal

Bob Mantey, Senior Scientist

Jorge Estrada, Senior Associate

Fernando Sotelo, PE, PTP, Senior Associate

Michael Milroy, Associate

Stephanie Chen, Scientist

Natalie Foley, Scientist

Cary Nakama, Graphic Artist

Laura Muñoz, Document Specialist

Maria Heber, Clerical

7 List of Preparers

This page intentionally left blank.

Appendix A Air Quality and Greenhouse Gas Emission Background and Modeling Data

Appendices

This page intentionally left blank.

Appendices

Appendix B Geotechnical Investigation

Appendices

This page intentionally left blank.

Appendix C Traffic Counts and Intersection Calculation Worksheets

Appendices

This page intentionally left blank.