CAL POLY
SAN LUIS OBISPO

NOTICE OF AVAILABILITY

STUDENT HOUSING SOUTH
DRAFT ENVIRONMENTAL IMPACT REPORT

NOTICE IS HEREBY GIVEN that the California State University (CSU) Board of Trustees and the California Polytechnic State University, San Luis Obispo (Cal Poly) in their role as Lead Agency has completed a Draft Environmental Impact Report (EIR) for the project described below and invites comments on the adequacy and completeness of the environmental analyses and mitigation measures described in the Draft EIR.

PROJECT: The CSU proposes to amend the Cal Poly Master Plan and build approximately 1,475 beds of student housing in four- to five-story structures along with a 300- to 500-space parking structure on approximately 12 acres at the current location of the R-1 and R-2/G-4 surface parking lots at Grand Avenue and Slack Street. To comply with California Environmental Quality Act (CEQA) provisions, the EIR identifies all potential environmental impacts associated with the proposed project. The EIR is prepared in accordance with the guidelines specified in §21100 of the CEQA Guidelines.

ENVIRONMENTAL REVIEW FINDINGS: The Draft EIR has been prepared pursuant to the requirements of the State Guidelines for the implementation of CEQA. The EIR prepared for the project identifies and discusses potential impacts, mitigation measures, residual impacts, and monitoring requirements for identified subject areas.

DOCUMENT AVAILABILITY: The Draft EIR will be circulated for agency and public review during a **45-day public review period** which begins on November 25, 2013, and ends on January 9, 2014. Comments must be received by **5:00 P.M. on January 9, 2014.** Copies of the document are available for review at the Kennedy Library on campus, the City/County Library on Palm Street in San Luis Obispo, and online at http://afd.calpoly.edu/facilities/facp_index.asp.

HOW TO COMMENT: On behalf of the lead agency, comments on the Draft EIR shall be addressed to:

CSU Board of Trustees
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STUDENT HOUSING SOUTH

ENVIRONMENTAL IMPACT REPORT

DRAFT | NOVEMBER 2013

SCH #2013091085

Student Housing South

Draft
Environmental Impact Report
SCH No. 2013091085

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November 2013

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EXECUTIVE SUMMARY

A. PURPOSE OF THE EIR

California Polytechnic State University, San Luis Obispo (the University or Cal Poly) proposes to construct approximately 1,475 beds of freshman housing and a 300- to 500-space parking structure at the present location of the General (G)-1, G-4, and Residential (R)-2 parking lots. This project is subject to the discretionary approval of The California State University (CSU) Board of Trustees (Trustees) and is, therefore, a project under the California Environmental Quality Act (CEQA). The purpose of this Environmental Impact Report (EIR) is to identify the potential significant impacts of the proposed project on the environment, indicate the manner in which such significant impacts will be mitigated or avoided, and identify alternatives to the proposed project that avoid or reduce these impacts. The EIR is intended to serve as an informational document for use by the Trustees, the CEQA lead agency; other responsible agencies; and the general public in their consideration and evaluation of the environmental consequences associated with the implementation of the proposed project. Significant impacts identified and the measures recommended to reduce or avoid them are shown in Table ES-4. Significant and unavoidable impacts are limited to construction and operational air quality, including greenhouse gases, and impacts to off-campus intersections.

B. PROJECT LOCATION

Cal Poly is located northeast of the city of San Luis Obispo, approximately midway between San Francisco and Los Angeles on California's central coast. The university campus occupies over 6,000 acres. University lands include range and agricultural areas as well as natural preserves, in addition to more developed areas. The more developed portion of campus is identified as the "campus instructional core" and includes agricultural support facilities and academic, housing, and administrative buildings. The campus instructional core is generally bound by Highland Drive on the north, California Boulevard on the west, Slack Street on the south, and primarily undeveloped foothills on the east.

The project location and project boundaries are shown in Figures ES-1 through ES-3. The project site is located at the southeastern edge of the campus instructional core northwest of the intersection of Grand Avenue and Slack Street. The Grand Avenue and Slack Street entrance is the main entry point for the campus. The site is currently occupied by the G-1, G-4, and R-2 parking lots and encompasses approximately 12 acres. These parking lots provide approximately 1,324 surface parking spaces for staff, campus residents, and the general population.

The site is bordered by Slack Street and the former Pacheco Elementary School to the south. The site is elevated approximately 6-10 feet above Slack Street and is screened by this topographical separation and existing mature trees. The former school is owned by the San Luis Coastal Unified School District but is leased to several entities. As of July 2013, the buildings most proximate to the project site are occupied by several private schools. Other occupants of the facility include a public preschool and public children's therapeutic services. Residential neighborhoods are located to the east and west of the former school, south of the project site. Residences in these areas are predominantly single family, and include many units rented to students. Proximate campus development includes the Performing Arts Center, Vista Grande Dining, and Sage Restaurant to the north; student residence halls, a parking kiosk, and vacant University-owned land to the east; and a parking structure, athletic fields, and athletic facilities to the west.

Figure ES-1. Project Vicinity Map

Figure ES-2. Project Location Map

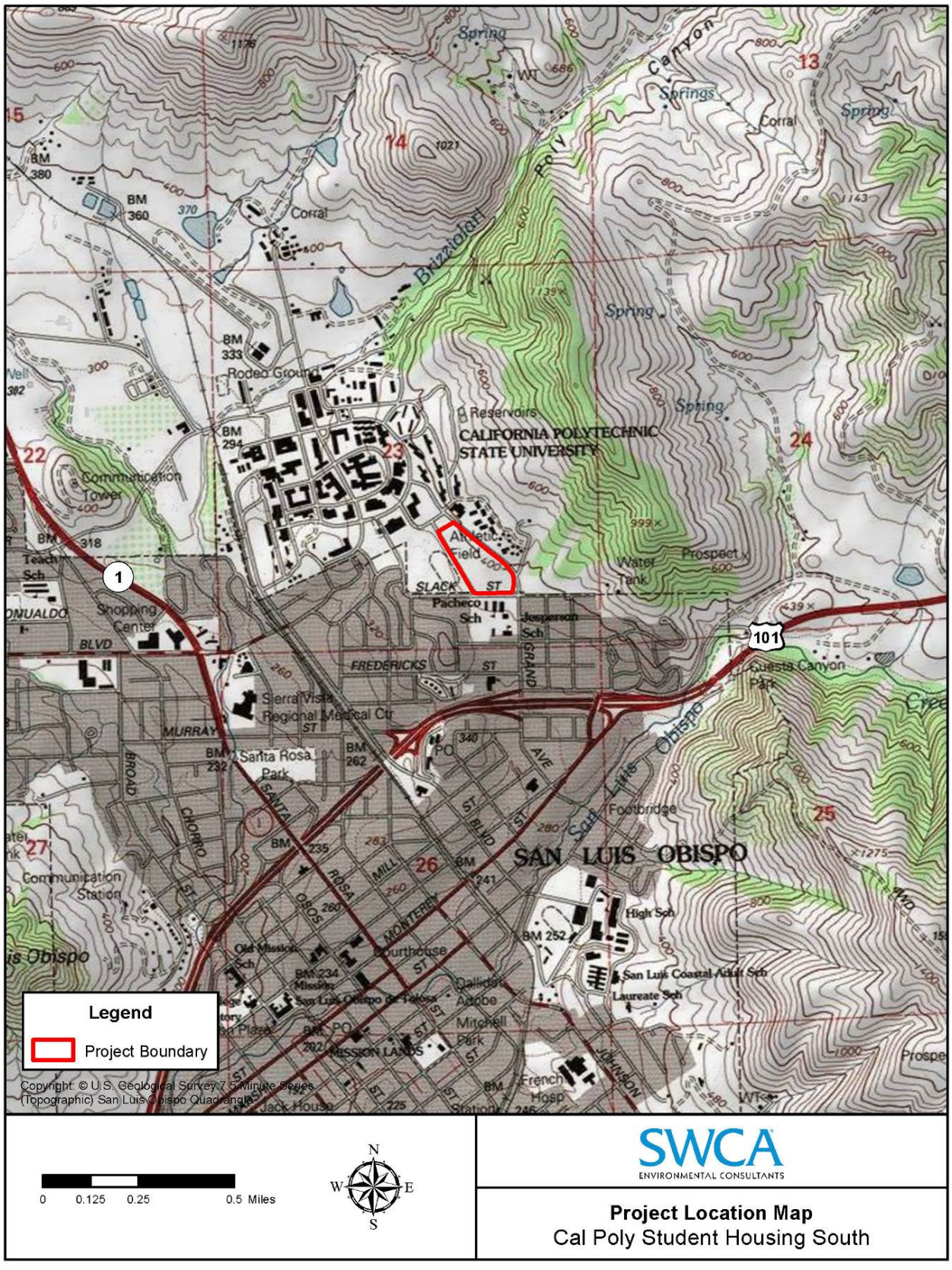


Figure ES-3. Preliminary Site Plan

C. PROJECT BACKGROUND

The 2001 Cal Poly Master Plan is the primary document governing land use and capital improvements on campus through the year 2020. The Master Plan includes several elements which guide development on campus, including, but not limited to: Campus Instructional Core, Residential Communities, Circulation, and Parking. The Master Plan establishes land uses for the entire campus and outlines principles to guide future development. The Master Plan does not set specific standards for development; however, development pursuant to the Master Plan is conditioned by mitigation measures outlined in the Master Plan EIR, as applicable.

The Residential Communities element identifies constraints associated with housing on campus and communitywide, outlines principles to guide the housing program on campus, and identifies several locations for housing communities (H) on University lands (refer to Figure ES-4). Housing constraints on campus at the time the Master Plan was prepared included limited choice of housing type, restrictive meal plans, and long waiting lists. Off-campus, constraints included low vacancy rates, high costs, neighborhood concerns, and issues with access to the campus. A program of residential development was prepared for the Master Plan in response to ongoing housing constraints. Since the Master Plan was adopted, several of the planned housing complexes have been constructed (refer to Table ES-1).

Table ES-1. Residential Complexes Completed Since 2001

Housing Project	Name	Notes
H-1, H-2, and H-3	Poly Canyon Village	Three housing sites were combined, and amended to increase total beds from 1,620 to 2,660 in an apartment configuration. Constructed in 2008.
H-8	Bella Montana	Constructed in 2006. Provides 69 condominiums for faculty and staff.
H-A	Cerro Vista Apartments	Construction was completed in 2003. Provides 796 beds in an apartment configuration.

With the completion of the complexes outlined in Table ES-1, Cal Poly offers 6,239 beds in student housing, a significant increase from the 2,838 beds available at the time of Master Plan adoption. The percent of students housed on campus has increased from approximately 16% in 2001 to over 35% in 2012; however, the current demand continues to exceed the available supply. The existing bed count includes over 600 beds in triple occupancy to meet some portion of the excess demand, and the campus continues to maintain a waiting list. Therefore, Cal Poly continues to explore additional residential development options on campus.

Several additional housing sites have been included in the housing program. However, the University has identified constraints to development on the following mapped locations (refer to Figure ES-4 and Table ES-2).

Figure ES-4. Master Plan Residential Communities Plan

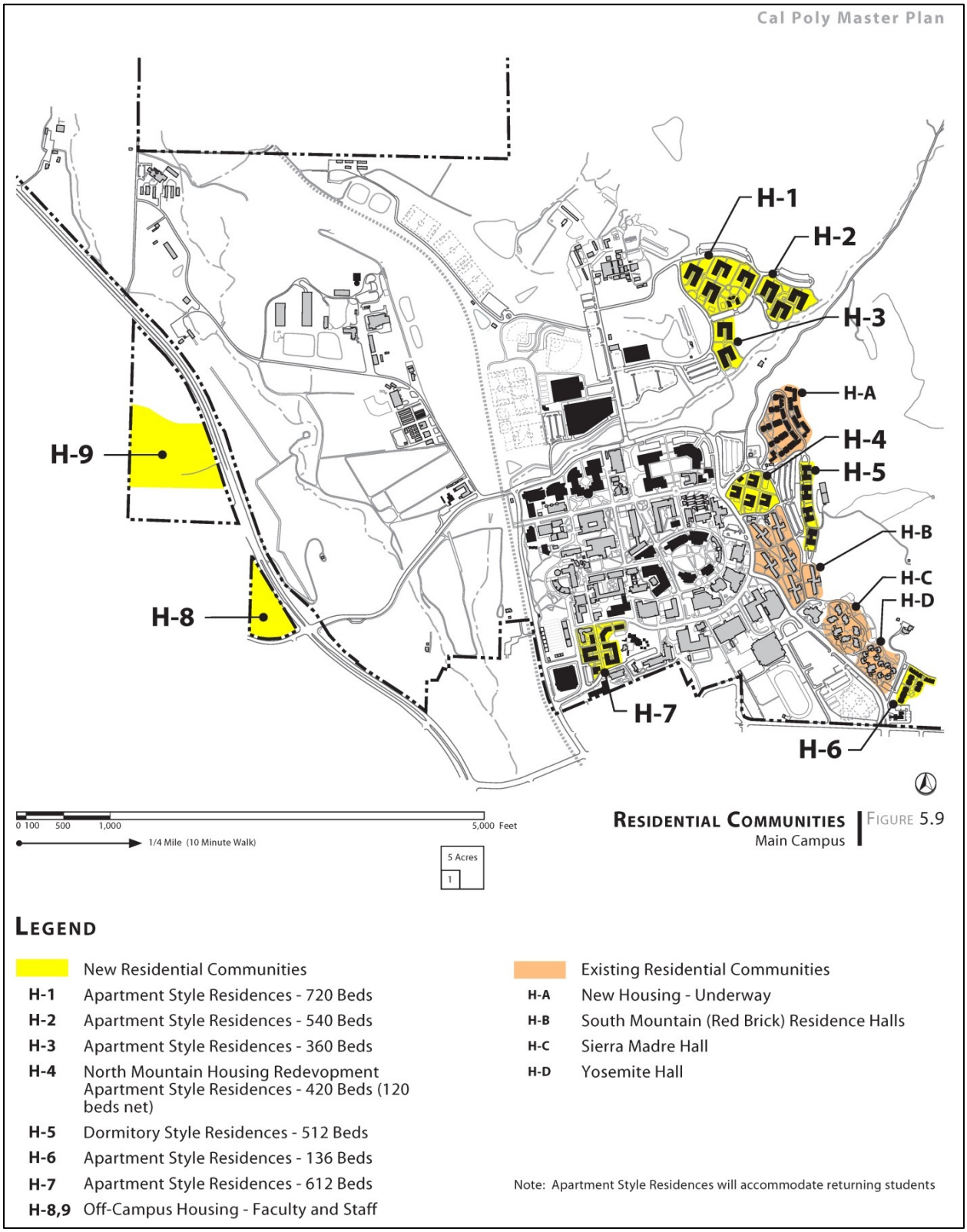


Table ES-2. Constraints to Residential Development

Housing Project	Notes
H-4	The Master Plan envisioned redevelopment of the existing North Mountain Housing to net a gain of 120 beds. The North Mountain Housing units were completed in 1953, and are not financed. The University has determined that the temporary loss of housing units would be detrimental, and that the increased debt burden would not be cost-effective.
H-5	This project would entail the replacement of a portion of a surface parking lot with 512 dormitory-style beds. Site constraints, including slope and drainage, limit potential bed count on this site and significantly increase costs associated with development. Increased costs are due, in part, to the substantial increase in building height required to accommodate the site constraints (up to seven stories).
H-6	The Master Plan identified the potential for 136 apartment-style beds at this location. Subsequent site review identified slope and drainage constraints which would severely limit potential bed count on-site and substantially increases costs.
H-7	The Master Plan identified the potential for 612 apartment-style beds in this location. Subsequent environmental review of the area in the Mustang Stadium EIR (2004) identified the historic resource potential of structures in the area, further limiting the development potential in this portion of campus.

Constraints at the remaining housing sites identified in the Master Plan have led to the consideration of the proposed site for residential development. The current site is further considered because of proximity to other existing freshman housing, and existing communal dining facilities. Under the current proposal, the bed count identified in the Master Plan for housing sites H-4 through H-7 would be consolidated at the current site and the complexes at sites H-4 through H-7 would not be pursued under the current Master Plan. The project is intended to meet existing and projected demand for housing. The project does not increase enrollment over current levels. The Poly Canyon Village project, developed in 2008, included an amendment to the total Master Plan bed count, and an EIR was certified for the project. The proposed housing does not increase bed count over projections in the Master Plan, as amended.

The proposed site is currently designated for Parking and Recreation, Athletics, and Physical Education. The Master Plan would be amended to reflect the alteration in the land use, the parking and residential community elements, as well as the ultimate project footprint. The Master Plan amendment is limited to location of beds; total bed count projected and other aspects of the residential community plan would be unchanged. Development of a parking structure in this location requires a Master Plan amendment to denote the ultimate footprint.

Other campus planning documents have already identified the potential for residential use of the proposed site. The 2010 Campus Land Use and Design Guidelines (Guidelines) “zone” the area in question “R-4.” Allowable uses are specified as “residential uses, with parking and related support services, including open spaces, recreation facilities, study areas, and retail.” The Guidelines were developed using both direction given in the Master Plan and subsequent studies throughout the campus. The Guidelines are intended as an advisory document and have not been formally adopted. The difference in land use specified for the proposed site in the Guidelines as opposed to the Master Plan indicates an evolution in both the housing program and in the understanding of constraints to development on campus.

Parking on campus is managed by the Parking Services division of the University Police Department. Parking has evolved considerably since adoption of the current Master Plan, resulting in several changes in development and management strategies. At the time of Master Plan adoption, parking supplies were constrained, as a much higher percentage of the campus population commuted. Several new structures and surface lots, including remote storage lots, were programmed in the Master Plan to accommodate projected demand, and consolidate supply. Two structures were completed as part of the Poly Canyon Village housing project, a new parking lot was constructed off Mount Bishop Road, and an additional parking structure was programmed and approved as part of the Mustang (Spanos) Stadium project. The stadium parking has not yet been built and is not currently programmed for construction. Two additional parking structures were proposed in the Master Plan for locations north of the library, but have not been pursued to date.

Table ES-3. Parking Facility Occupancy

Facility	Capacity	Average Occupancy	Percent Occupancy
General (Non-Residential Parking)			
H-1	366	23	6%
H-12	441	417	95%
H-14	367	108	30%
H-16	506	365	72%
G-1	426	354	83%
Grand Avenue Structure	618	561	91%
Resident Only Parking			
R-1	789	718	91%
R-3	940	532	57%
R-4	971	604	62%
Combined Residential/General Parking			
R-2/G-4	898	503	56%

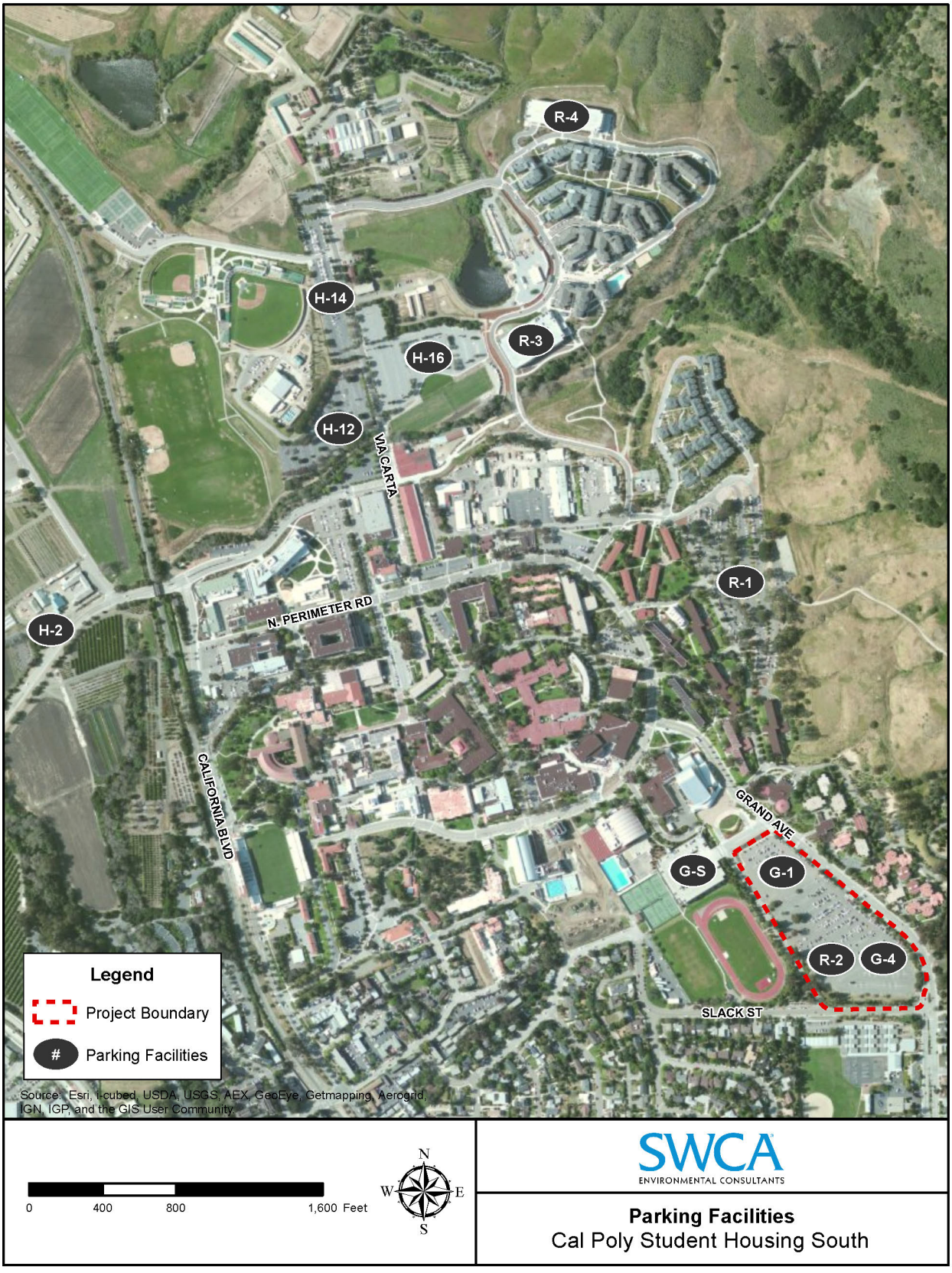
Source: University Police Department and Fehr & Peers, July 2013.

Additional, approved parking structures have not been built in part because of declining use of existing parking facilities. Reductions in use are associated with reduced commute trips to campus, increased on-campus housing, and reductions in parking demand from campus residents. Implementation of the Master Plan has also included improvements in bicycle and pedestrian systems in and near campus, including striping, signage, bicycle racks, closure of South Perimeter Road, and installation of pathways along California Boulevard, as well as the continuation of bus and carpool subsidies. These factors have combined to create excess capacity in the existing parking facilities on campus. Table ES-3 outlines general occupancy statistics for several campus parking facilities. A map of campus parking facilities is provided as Figure ES-5.

Although use fluctuates depending on the season and events on campus, such as construction projects, tours, and special events, parking facilities on campus generally provide excess capacity. The R-2/G-4 lot, for example, is used for overflow parking for tours and construction worker vehicle parking.

The Master Plan, while programming several new parking facilities, set forth a joint goal of reducing parking demand by 2,000 spaces. New parking facilities were intended to consolidate, rather than expand, parking, and to provide redevelopment opportunities in areas of existing surface lots. Although the project site was not initially proposed for housing, the Master Plan allows redevelopment of a portion of the site with Recreation, Athletics, and Physical Education land uses.

Figure ES-5. Parking Facilities Map



D. PROJECT OBJECTIVES

The project is being pursued with the following objectives:

- Reallocate beds currently occupied by freshman in complexes designed for upperclassmen.
- Reduce the use of triple-bed configurations in existing units.
- Address ongoing excess demand for on-campus housing.
- Progress towards the goal of housing 100% of the freshman class on campus.
- Continue to enrich and develop the residential community on campus.
- Continue to reduce impacts associated with commuting students, including traffic and related air quality impacts.
- Continue to utilize campus lands for the "highest and best use," including reallocation of excess parking areas for instructional or residential uses within the developed campus instructional core.

E. PROPOSED PROJECT

1. Grading and Site Preparation

Initial site preparation would include removal of pavement and other existing features. Where feasible, the University recycles debris on campus; for this project, it is assumed that paving debris and lighting features would be disposed of off-site at an approved landfill. According to the Geotechnical Report (Earth Systems 2013) prepared for the project there is evidence of undocumented fill underlying the existing parking area. The project assumes excavation of approximately 5 feet of soil across the entire site, or 2.6 million cubic feet (96,800 cubic yards). Excavated material may be recompacted and reused on-site, used elsewhere on campus, or may be exported. Existing landscaping, which consists mainly of mature, non-native trees, will be removed. Primary access for construction vehicles will be provided off Grand Avenue, with alternate access provided via Pacheco Way to Slack Street.

Site grading will recontour the site to focus drainage towards the proposed greenspace and bioswale generally located in the site's midsection. The parking structure will be built partially into the slope, with one or two stories below grade. The project will result in disturbance of the entire 12-acre site.

2. Structures

The project will provide approximately 1,475 beds in seven four- to five-story towers totaling approximately 450,000 gross square feet. The preliminary site plan is shown in Figure ES-3. The preliminary site design includes seven residential structures, oriented around a central greenspace and bioswale. A parking structure will be situated on the northern end of the site, with primary access off Grand Avenue via the existing access road to the G-1 parking structure. Building height is a maximum of 60 feet. Residential structures will be five stories. The parking structure is proposed to be a maximum of four stories, with one to two stories below grade.

The residential structures will be oriented internally to the site; primary building ingress and egress points are likewise oriented north or internal to the site. Amenities within suites will include a shared restroom and shower, as well as space for a sink, microwave, and refrigerator. Full kitchens will not be provided in the units. Each floor will include a central gathering/study area. Laundry facilities will be provided on site.

Design is underway; structural design components will include articulated façades and staggering of roofs, buildings, and façades. Preliminary axonometric projections and renderings are provided in Figures ES-6 and ES-7. Approximately 20,000 square feet of ancillary uses will "wrap" portions of the northern, eastern, and southern façade of the parking structure to soften the structure's appearance (refer to Figure ES-8). Potential uses include facilities services (central plant, custodial, mailroom, workshop, and electrical room), several support staff offices, a community lounge with restrooms, a coffee shop, and a welcome center and meeting room.

Outdoor areas will be landscaped with turf and drought tolerant landscaping, consisting primarily of trees. Pedestrian and bicycle pathways will be installed connecting to campus. The preliminary site design includes a sand volleyball court, a half basketball court, and a variety of small paved patios for use by the residents. The analysis assumes approximately 0.5 acres of turf, 5 acres of other landscaping including bioswales, and 2.5 acres of flatwork/paving in sidewalks, patios, and similar features.

The site is being designed consistent with the guidelines for "Low Impact Development." Site features which meet the guidelines include:

- approximately 1,000 linear feet of bioswale;
- pavers;
- landscaping; and,
- site grading to maximize infiltration.

3. Utilities

Existing water lines, wastewater infrastructure, power and gas infrastructure, and stormwater facilities are located on or proximate to the site. Eight-inch water lines are located in Grand Avenue; 8-inch sewer lines are likewise located in Grand Avenue. An existing 42-inch storm drain traverses the northern third of the site from the northeast to the southwest. The University provides power via an existing substation located at the Cerro Vista housing complex; conduit is located at Grand Avenue.

For the purposes of this analysis, it is assumed that the project will require entirely new on-site water infrastructure, wastewater infrastructure, and gas and electrical power infrastructure, as well as substantive new on-site stormwater facilities. Improvement of water systems will consist of installation of an on-site distribution system; improvements to existing water mains at Grand Avenue are not required. A new wastewater collection system will be installed; the onsite collection system will either tie-in to existing pipelines at Grand Avenue via a lift station, or will gravity feed to existing pipelines near the Recreation Center. The latter will require trenching and installation of new lines from the site to the Recreation Center within the campus (approximately 3,700 linear feet). Stormwater infrastructure will include passive and "hard-pipe" components. As mentioned previously, the project includes components, such as bioswales, that are considered passive stormwater technologies. The project will also include installation of new storm drains which will both reroute existing drainage from Grand Avenue and areas to the east, and accommodate excess flow from the site. No improvements to the existing power distribution systems are proposed; entirely new on-site electrical distribution systems will be installed.

Heating for climate control and water would be provided by one of three options: additional capacity at the central plant, installation of a cogeneration or fuel cell system on-site, or installation of approximately 10 boilers within the buildings. The project may also include roof-top solar energy systems to supplement climate control and power demand.

4. Access and Parking

Primary vehicular access to the site will be from Grand Avenue, via the existing northern access road for the G-1 parking structure. Emergency and service access will be from Grand Avenue and Pacheco Way. Vehicle parking will be provided in a four-story parking structure, comprising approximately 300 to 500 spaces. Primary access to the structure will be from the northern access road. A small surface parking lot (approximately 20 spaces) will be available for short-term and disabled use.

The project includes pedestrian access throughout the site, primarily oriented towards the intersection of Grand Avenue and the northern access road. Bicycle racks will be provided throughout the site at approximately one rack space per bed.

5. Employment

The completed housing project will support approximately 30 new professional staff positions. Staffing will otherwise be provided by current students and existing staff.

6. Timing/Schedule

Construction of the project is expected to occur in one phase over approximately 31 months beginning in Winter 2014/2015.

7. Approvals

The CEQA Guidelines distinguish among “Lead,” “Responsible,” and “Trustee” agencies based on their responsibilities for carrying out or approving certain aspects of a project. The CSU Board of Trustees is the Lead Agency for the project. A “Responsible Agency” refers to an agency other than the Lead Agency that has discretionary approval over the project. No other agency has discretionary approval over the project as a whole. Agencies that may use this document in their permitting roles include the Regional Water Quality Control Board (RWQCB), San Luis Obispo County Air Pollution Control District (SLOAPCD), City of San Luis Obispo (City), and State Fire Marshal.

A National Pollutant Discharge Elimination System (NPDES) Storm Water Permit will be required for the project since it will involve construction on more than 1 acre. All building permits are handled internally through the CSU system, except for plan approval by the State Fire Marshal and the Division of the State Architect for access compliance. This environmental document is intended to provide project-specific information to support the following CSU approvals:

- Non-State Amendment to the Capital Outlay Budget Change Proposal (COBCP)
- Major Master Plan Amendment
- Project EIR Approval/Certification
- Final Project and Schematic Design Approval

A “Trustee Agency” refers to a state agency having jurisdiction by law over natural resources affected by a project. Trustee agencies for the project are limited by law to the California Department of Fish and Wildlife (CDFW) and State Lands Commission.

Figure ES-6. Axonometric Projection of Proposed Project

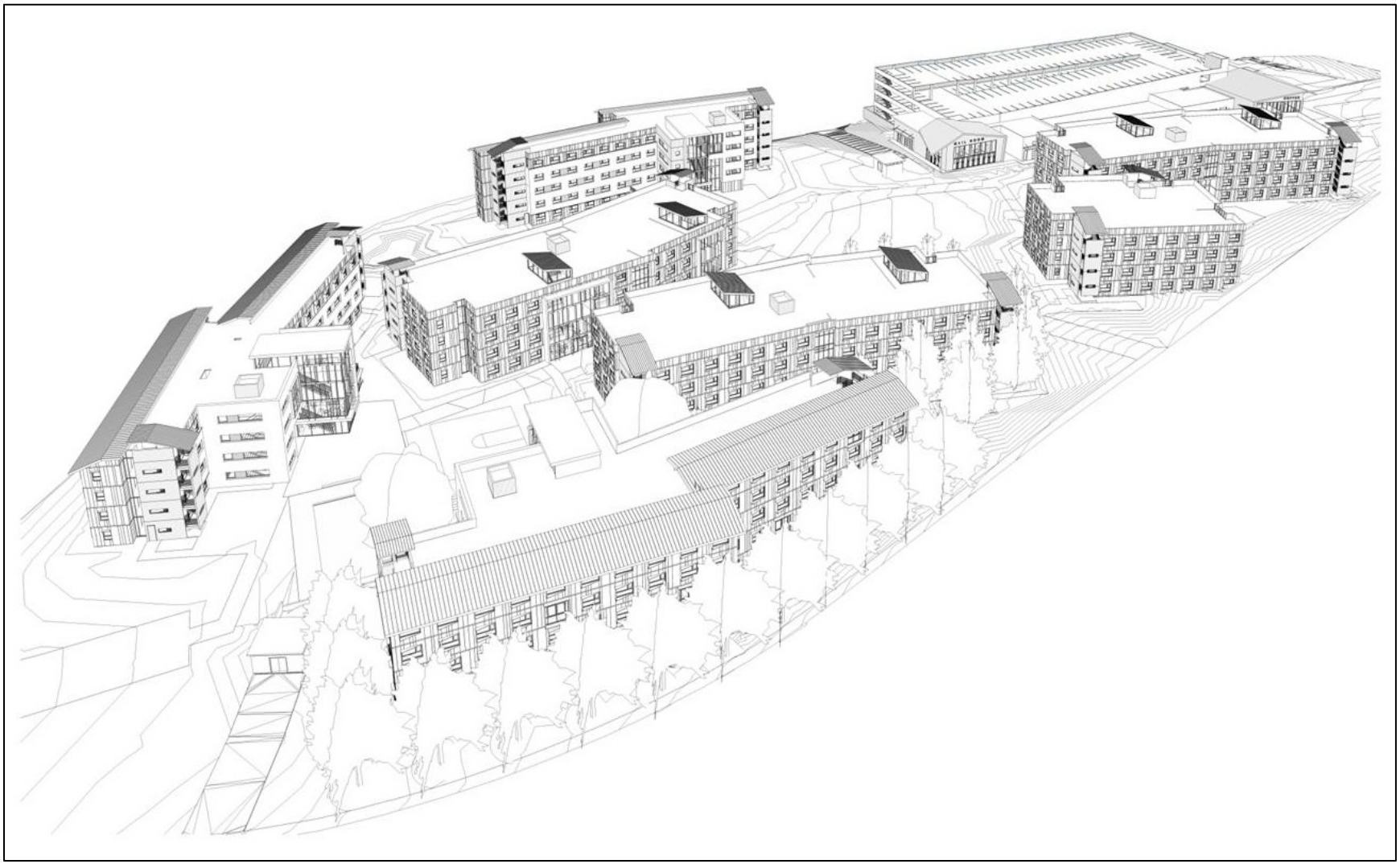
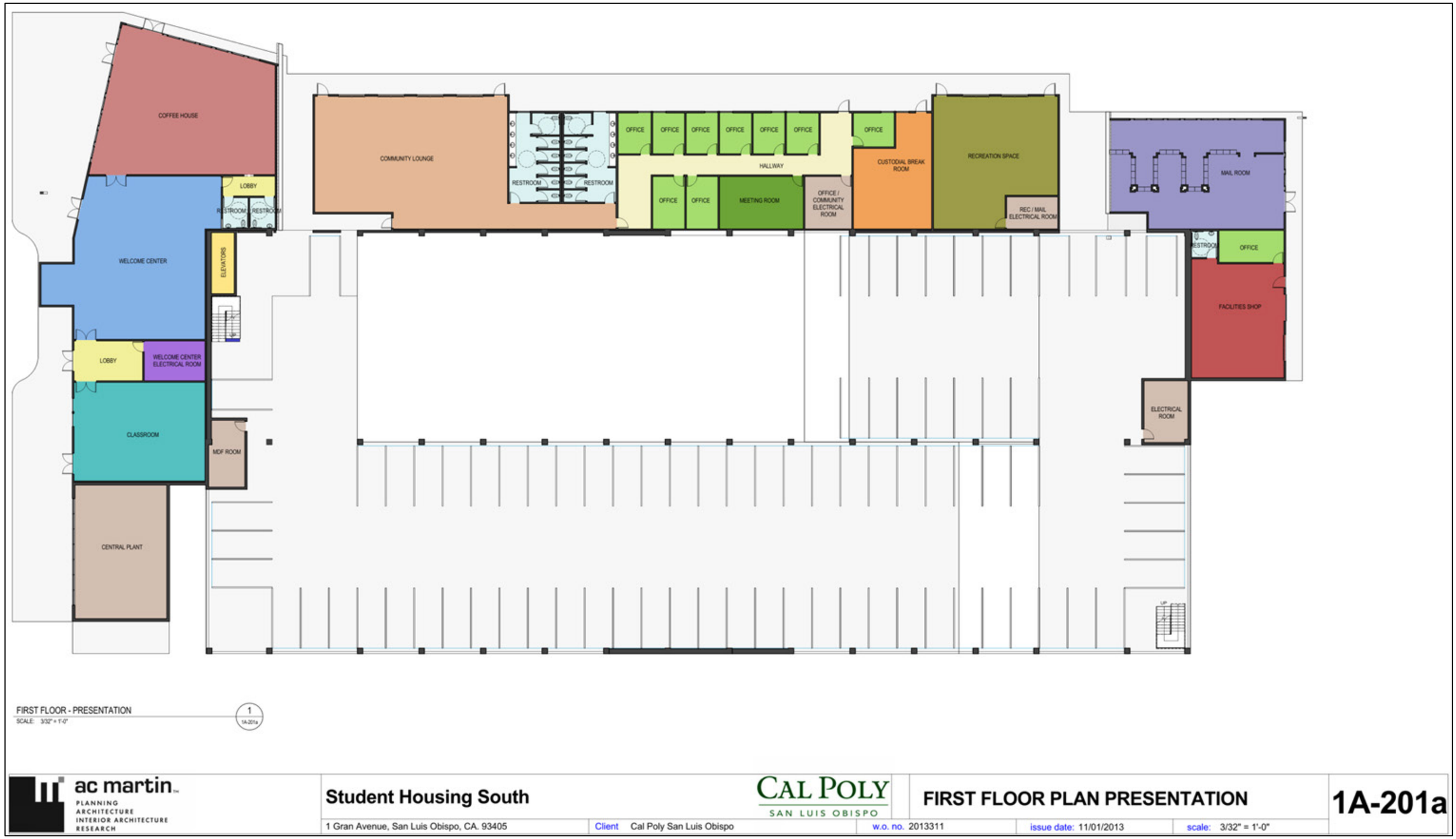


Figure ES-7. Axonometric Projection of Proposed Project

Figure ES-8. Preliminary Floor Plan, Parking Garage and Ancillary Services



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F. SCOPING AND NOTICE OF PREPARATION PROCESS

In compliance with CEQA Guidelines, the University has taken steps to provide opportunities to participate in the environmental process. During the environmental determination process, an effort was made to contact various federal, state, regional, and local governmental agencies and other interested parties to solicit comments and inform the public of the proposed project. This included the distribution of the Notice of Preparation (NOP) on September 26, 2013, to various agencies, organizations, and interested persons throughout San Luis Obispo County and the surrounding area. The proposed project was described, the scope of the environmental review was identified, and agencies and the public were invited to review and comment on the NOP. A public scoping meeting was held October 8, 2013, during which public comment from approximately 12 attendees was taken regarding the scope of the EIR. The close of the NOP review period was October 25, 2013. Agencies, organizations, and interested parties not contacted or who did not respond to the request for comments about the project during the preparation of the Draft EIR currently have the opportunity to comment during the 45-day public review period on the Draft EIR.

G. SIGNIFICANT ENVIRONMENTAL IMPACTS IDENTIFIED

Impacts of the proposed project and alternatives have been classified using the categories described below:

- **Significant, unavoidable, adverse impacts (Class I):** Significant impacts that cannot be fully and effectively mitigated. No measures could be taken to avoid or reduce these adverse effects to insignificant or negligible levels.

- **Significant, but mitigable impacts (Class II):** These impacts are potentially similar in significance to those of Class I, but can be reduced or avoided by the implementation of mitigation measures.

- **Less than significant impacts (Class III):** Mitigation measures may still be required for these impacts as long as there is rough proportionality between the environmental impacts caused by the project and the mitigation measures imposed on the project.

The term “significance” is used throughout the EIR to characterize the magnitude of the projected impact. For the purpose of this EIR, a significant impact is a substantial or potentially substantial change to resources in the local proposed project area or the area adjacent to the proposed project. In the discussions of each issue area, thresholds are identified that are used to distinguish between significant and insignificant impacts. To the extent feasible, distinctions are also made between local and regional significance and short-term versus long-term duration. Where possible, measures have been identified to reduce project impacts to less than significant levels. CEQA requires that public agencies should not approve projects as proposed if there are feasible mitigation measures available which would substantially lessen the environmental effects of such projects (CEQA Statute §21002). Included with each mitigation measure are the plan requirements needed to ensure that the mitigation is included in the plans and construction of the project and the required timing of the action (e.g., prior to development of final construction plans, prior to commencement of construction, prior to operation, etc.).

The impacts and associated mitigation measures are shown in the Summary of Impacts and Mitigation Measures (refer to Table ES-1). The table includes significant impacts, which are identified with an impact number (e.g., AES Impact 1). The table also includes less than

significant impacts, which are not identified with an impact number, but are included and summarized in the table for reference.

Each issue area section of the impact summary table describes and classifies each impact, lists recommended mitigation when applicable, and states the level of residual impact (i.e., impact after implementation of mitigation). A brief summary of the key significant impacts and mitigation measures for each issue area is presented below.

1. **Air Quality.** The project would exceed construction and operational thresholds for reactive organic gases and nitrogen oxides (ROG+NOx), related mainly to the application of architectural coatings. The project would exceed one of the accepted thresholds for greenhouse gases (GHG).

2. **Traffic.** Trips redistributed by the closure of the surface parking lot would have significant impacts at City and California Department of Transportation (Caltrans) intersections already at, or approaching, unacceptable levels of service.

The reader should refer to Table ES-4 and Chapter 4, Environmental Impacts Analysis, of the EIR for a more detailed discussion of the impacts and associated mitigation measures.

H. AREAS OF CONTROVERSY KNOWN TO THE LEAD AGENCY

Areas of controversy have been identified during the scoping process and through consultation with jurisdictions and agencies with interest in the project. The following is a summary of controversial issues and where, if applicable, the issue is addressed in the EIR. Comment letters received during the scoping project are included as Appendix A.

- **Traffic.** Operational characteristics and limitations of intersections along Santa Rosa Street and California Boulevard are longstanding issues of concern to the City. The primary sources of controversy have included accurately quantifying the University's impact, and concerns over whether or how the University can mitigate impacts on intersections outside their jurisdiction. Impacts and mitigation are addressed in Section 4.6, Traffic and Circulation.

- **Parking.** The City and neighboring residents have expressed concerns over segments of the campus population who park on surface streets within the City limits. Commenters have expressed concerns over the closure of the existing surface parking lot exacerbating this practice. The City has designated several restricted parking districts in the vicinity in response to this ongoing concern. Analysis of available parking on campus is provided in Section 4.6, Traffic and Circulation. The analysis focuses on whether sufficient capacity exists within the campus parking system to accommodate redistributed commuters and residents, and the environmental impacts associated with trip redistribution.

- **Fire.** The Fire Department has expressed concerns over access to the site and individual buildings within the site, and potential for increased nighttime call volume. Impacts related to provision of fire service are included in Section 4.5, Public Services and Recreation.

- **Nuisances Associated with the Student Population.** Community members commented repeatedly on concerns over the project's contribution to ongoing nuisances associated with students trespassing, congregating, and walking through

neighborhoods, particularly at night. Community members were concerned with the project contributing to this ongoing problem by concentrating on-campus population near the neighborhoods. Community members were also concerned with light trespass into the neighborhood from the project. Community members identified alternatives, which are included in Chapter 5, Alternatives Analysis, to address these impacts. Issues with light are addressed in Section 4.1, Aesthetic Resources. Nuisance noise is addressed in Section 4.4, Noise. Public safety is addressed as part of the impact analysis in Section 4.5, Public Services and Recreation. It should be noted that the behavior of individual students or groups of students does not necessarily cause quantifiable environmental impacts, however, this document attempts to address potential impacts where necessary.

I. PROJECT ALTERNATIVES

Criteria used to develop a reasonable range of alternatives included the potential to avoid significant impacts and whether or not the considered alternative could generally meet the project objectives. Consideration was also given to potential alternatives that were raised by agencies and community members during the scoping process. Table ES-1 shows each potential impact and all mitigation measures recommended to avoid or reduce identified impacts. Identified unavoidable impacts included construction and operational air quality (including GHG emissions) and traffic (impacts to off-campus intersections).

No significant and unavoidable aesthetic resource impacts were identified; however, adjacent neighbors identified concerns with the location of housing units on portions of the site nearer the neighborhood, and increased potential for gathering/pedestrian activity in the area. Therefore, a site layout option is considered in the feasible range of alternatives.

Identified alternatives include the No Project (No Action) Alternative, No Project: Pursue Existing Residential Communities Element (Existing Master Plan), Location Alternative: H-12 and H-16 Parking Lots, Site Layout Alternative A: Slack Street Parking Structure and Reduced Project.

1. No Project Alternative

The No Project Alternative would include none of the components of the proposed project. The site would remain a surface parking lot, and the residential community would not be built. This alternative does not meet any of the basic objectives of the project, and is inconsistent with the 2001 Master Plan. The Master Plan identified the need for substantive additional housing on campus to meet existing and projected demand; failure to develop additional housing would negate many of the principles stated in the Master Plan.

2. No Project: Pursue Existing Residential Communities Element (Existing Master Plan)

This alternative would consist of development of the Residential Communities Element as adopted in the 2001 Master Plan (refer to Figure ES-4).

3. Location Alternative: H-12 and H-16 Parking Lot

This alternative, suggested by a community member, would consist of relocation of the proposed development to the current site of the H-12 and H-16 parking lots, north of Highland Drive and Brizzolara Creek. The existing surface parking lots in this location would be removed, and the 1,475 beds and 300- to 500-space parking structure would be constructed. This alternative may require additional components such as a new common dining facility.

4. Site Layout Alternative A: Slack Street Parking Structure

Members of the public suggested analysis of an alternative which would locate the parking structure at the southern end of the site, nearest Slack Street. The intent would be to provide a buffer between the neighborhoods and the student residences. This alternative would alter the existing site plan to locate the parking structure at Slack Street and shift residential buildings to the north.

5. Reduced Project Alternative

The alternatives analysis considers a reduction in bed count in order to address significant and unavoidable impacts related to air quality and traffic.

J. ENVIRONMENTALLY SUPERIOR ALTERNATIVE

CEQA requires the alternatives section of an EIR describe a reasonable range of alternatives to the project that avoid or substantially lessen any of the significant effects identified in the EIR analysis while still attaining most of the basic project objectives. The alternative that most effectively reduces impacts while meeting project objectives should be considered the "environmentally superior alternative." In the event that the No Project Alternative is considered the environmentally superior alternative, the EIR should identify an environmentally superior alternative among the other alternatives. Based on the analysis in Chapter 5, the proposed project as mitigated is considered environmentally superior.

Table ES-4. Summary of Impacts and Mitigation Measures

Impacts	Mitigation Measures	Residual Impacts
Aesthetic Resources		
AES Impact 1 Trees and other landscaping placed in and around the proposed plaza area and surface parking lot at the northern end of the site has the potential to block existing quality views of Bishop Peak and Cerro San Luis as seen from portions of Grand Avenue and other public viewing locations, resulting in a direct long-term impact to the scenic vista.	**AES/mm-1** Prior to approval of the development plan, the University shall prepare a comprehensive Landscape Plan for review and approval by the CSU. The Landscape Plan shall be prepared by a licensed Landscape Architect. The Landscape Plan, as it relates to the plaza and surface parking areas at the northern portion of the project site, shall include the following in conjunction with other view-preserving measures determined by the Landscape Architect: a. The minimum number of trees shall be planted which meet the aesthetic and climatological need of the site. b. Trees shall be clustered, leaving substantial open areas to allow views and sightlines from Grand Avenue to the Morros; c. New trees within 30 feet of the new parking structure shall not exceed the height of the adjacent parking structure facade; d. New trees further than 30 feet from the new parking structure shall not exceed 20 feet in height; e. No new street trees shall be planted on Grand Avenue project frontage north of the northern-most new student housing structure; f. Deciduous trees shall be used to the greatest extent practical.	Less than significant with mitigation (Class II)
AES Impact 2 The project would potentially conflict with the visual character with the surrounding area. Inappropriate or insufficient planting along the southern and western perimeters of the project could cause an increased visibility of the structures as seen from Slack Street and neighborhoods to the south, resulting in a direct long-term impact to the visual character of the site and surrounding.	**AES/mm-2** Prior to approval of the development plan, the University shall prepare a comprehensive Landscape Plan for review and approval by the State Architect. The Landscape Plan shall be prepared by a licensed Landscape Architect. The Landscape Plan, in addition to other measures listed in this report, shall include the following: a. Trees and shrubs shall be planted along the southern and western perimeters of the project for the purpose of screening the new structures from off campus viewing locations to the south and west. Planting shall provide visual screening of at least 50 percent of the project as seen from viewpoints on Slack Street and	Less than significant with mitigation (Class II)

Impacts	Mitigation Measures	Residual Impacts
	shall occur as soon as practical in coordination with the grading and construction plans and schedule.	
AES Impact 3 During construction of the project, visibility of the site, equipment, materials, and related activities would cause visual clutter and reduce the visual quality of the area as seen from Slack Street and neighborhoods to the south, resulting in a direct short-term impact to the visual character of the site and surrounding.	**AES/mm-3** As soon as practical after commencement of construction, the University shall install fencing and/or landscape screening along the Slack Street frontage of the site to screen construction activities from view. Staging areas will be located generally away from Slack Street, and the southern end of the project site shall be planted as soon as practical.	Less than significant with mitigation (Class II)
AES Impact 4 Project lighting has the potential for glare caused by direct visibility of the light sources, light spill-over into areas other than the intended area, and for general atmospheric light pollution. The project's prominent location and building heights could increase noticeability of light sources and glare. Inappropriate lighting design, including light placement and height, luminaire type, housing, reflectors, lenses and shields could create a new source of substantial light and glare which would adversely affect nighttime views in the area, resulting in a direct long-term impact.	**AES/mm-4** Prior to approval of the development plan, the applicant shall submit a comprehensive lighting plan for review and approval by the CSU. The Lighting Plan shall be prepared by a qualified engineer who is an active member of the Illuminating Engineering Society of North America (IESNA) using guidance and best practices endorsed by the International Dark Sky Association. The lighting plan shall address all aspects of the lighting, including but not limited to all buildings, infrastructure, surface parking lots, parking garage decks, portals and driveways, paths, recreation areas, safety, and signage. The lighting plan shall include the following in conjunction with other measures as determined by the illumination engineer: a. The point source of all exterior lighting shall be shielded from off-site views; b. Light trespass from exterior lights shall be minimized by directing light downward and utilizing cut-off fixtures or shields; c. Lumination from exterior lights shall be the lowest level allowed by public safety standards; d. Exterior lighting shall be designed to minimize illumination onto exterior walls; and, e. Any signage visible from off-site shall not be internally laminated.	Less than significant with mitigation (Class II)
Master Plan Consistency		Less than significant (Class III)

Impacts	Mitigation Measures	Residual Impacts
Cumulative Impacts. The project would be consistent with the development patterns on campus, and would not be an unexpected visual feature. Although the proposed structures would contribute to the built environment, it is considered in-fill.		Less than significant with mitigation (Class II)
Air Quality		
AQ Impact 1 The project will exceed daily and quarterly construction emission thresholds for ROG+NOx.	**AQ/mm-1** Prior to the start of construction, verify through written documentation submitted to the SLOAPCD that the following standards are met: a. All construction equipment is equipped with Tier 3 or better engines, to the maximum extent feasible. b. Architectural Coatings specified meet VOC limits, including 50 g/L for Residential Interiors and Exteriors and 100 g/L for Non-residential Interiors and Exteriors. c. The schedule for Architectural Coatings application will be extended, limiting the daily coating activity.	Significant and Unavoidable (Class I)
AQ Impact 2 The project will exceed daily operational emission thresholds for ROG+NOx.	Implement **AQ/mm-1b**.	Significant and unavoidable (Class I)
AQ Impact 3 The project may result in short term nuisance dust and exposure to diesel emissions at sensitive receptors.	**AQ/mm-2** In order to minimize DPM impacts to sensitive receptors proximate to the project site, the following mitigation is proposed in conjunction with measures included in the project, and AQ/mm-1. a. Staging and queuing areas shall be located as distant as possible from sensitive receptors. b. Diesel idling greater than 5 minutes is not permitted. c. Signs specifying the idling limitations shall be installed on-site for the duration of construction. **AQ/mm-3** If previously undocumented pipe is encountered during excavation, a preliminary evaluation of the pipe composition will be performed. If transite pipe is suspected, a qualified handler will be retained to oversee preparation, removal, and disposal of the material in accordance with existing regulations.	Less than significant with mitigation (Class II)

Impacts	Mitigation Measures	Residual Impacts
AQ Impact 4 The operation of the parking structure may result in objectionable odors or emissions at the retail establishments proposed to wrap portions of the structure.	**AQ/mm-4** Prior to final design a qualified consultant shall review the proposed parking structure design, including the ancillary buildings and determine that the natural or mechanical ventilation systems are designed so as to minimize exposure to vehicle generated air pollution and prevent the buildup of emissions in the area around the ancillary building.	Less than significant with mitigation (Class II)
Clean Air Plan and Master Plan Consistency		Less than significant (Class III)
AQ Impact 5 The project would exceed the bright-line threshold for GHG emissions, but would be under the more representative service population threshold.	No additional mitigation is available.	Significant and unavoidable (Class I)
Cumulative Impacts. The cumulative study area for air quality impacts is the South Central Coast Air Basin (SCCAB). The project would contribute criteria pollutants during project construction and long-term operational use, including ozone precursors and particulate matter. GHG impacts, including those described above, all contribute cumulatively with those produced worldwide, to affect climate change. Compliance with identified air quality, energy efficiency, and water conservation mitigation measures would reduce the project's contribution to cumulative GHG emissions, and subsequent climate change, however, impacts would remain significant.		Significant and unavoidable (Class I)
Biological Resources		
BR Impact 1 Tree removal conducted during the nesting season (March through September) could directly or indirectly impact nesting or roosting birds and bat species.	**BR/mm-1** Prior to commencement of construction or tree removal, if such activities are scheduled to begin during the typical bird nesting season (from March 1 to August 31) a qualified biologist shall be retained to conduct a pre-construction survey (approximately one week prior to construction) to determine presence/absence for tree nesting birds or bats. If no nesting activities are detected within the proposed work area, construction activities may proceed and no further mitigation is required. If nesting activity on site is confirmed during pre-construction nesting surveys, work	Less than significant with mitigation (Class II)

Impacts	Mitigation Measures	Residual Impacts
	activities shall be delayed within 300 feet (500 feet if raptors) of active nests until the young birds have fledged and left the nest. To the extent feasible, tree removal shall be scheduled outside of typical nesting seasons to prevent impacts.	
BR Impact 2 Tree removal and lighting could affect movement patterns of wildlife on site.	Implement **BR/mm-1** and **AES/mm-2**.	Less than significant with mitigation (Class II)
Master Plan Consistency. The proposed project is located in the developed campus instructional core, on an existing surface parking lot. Development of infill areas is consistent with Master Plan policy for protection of biological resources.		Less than significant (Class III)
Cumulative Impacts		Less than significant (Class III)
Cultural Resources		
Historic and Archaeological Resources. There are no known or suspected historic or archaeological resources within the project site, based on documentation and records searches performed for the Master Plan. The fill diminishes the potential for discovery of buried resources during the majority of the excavation effort.		Less than significant (Class III)
CR Impact 1 Should the ultimate project design and construction methodologies require installation of caissons or otherwise require disturbance of bedrock formations, impact to paleontological resources may occur.	**CR/mm-1** If soil excavation associated with grading activities requires disturbance of bedrock formations, a qualified paleontologist will be retained to monitor construction activities in those areas. Should any vertebrate fossils or potentially significant finds (e.g., numerous well-preserved invertebrate or plant fossils) be encountered during work on the site, all activities in the immediate vicinity of the find shall cease until the qualified paleontologist evaluates the find for its scientific value. If deemed significant, the paleontological resource(s) shall be salvaged and deposited in an accredited and permanent scientific institution where they will be properly curated and preserved.	Less than significant with mitigation (Class II)

Impacts	Mitigation Measures	Residual Impacts
Cumulative Impacts. The project would not impact historic or prehistoric resources, and would have less than significant impacts to paleontological resources after mitigation. The project would not contribute to a cumulative impact to any of these resources.		Less than significant (Class III)
Geology and Soils		
Fault Rupture. The site is not at significant risk of impacts due to fault rupture.		Less than significant (Class III)
GS Impact 1 The proposed structures would be exposed to the effects of unstable earth conditions during a ground-shaking event, potentially exposing people and structures to risk of injury, loss or death.	**GS/mm-1** Prior to final plan approval, Cal Poly shall incorporate into the project design and implement all recommendations identified in the Soils Engineering Report (Earth Systems Pacific 2013), including any subsequent revisions or modifications, and/or all recommendations included in the final geotechnical report prepared for the project. All recommendations shall be shown on final plans and/or included as project specifications.	Less than significant with mitigation (Class II)
GS Impact 2 The proposed project would expose people and structures to the effects of liquefaction during a ground-shaking event.	Implement **GS/mm-1**.	Less than significant with mitigation (Class II)
GS Impact 3 Project development could expose people or structures to risks associated with landslides at slopes along the perimeter of and adjacent to the project site.	Implement **GS/mm-1**.	Less than significant with mitigation (Class II)
GS Impact 4 Short-term grading and excavation required for construction of the project would expose substantial amounts of soil to risk of wind and water erosion.	**GS/mm-2** Prior to final plan approval, plans shall demonstrate implementation of standard construction-related erosion control measures that identify how disturbed soils will be stabilized to prevent wind and water erosion during construction and immediately following construction until revegetation activities are initiated, including, i.e., through the use of temporary soil stabilizers, timing of construction activities to avoid the rainy season (if feasible), use of water for dust control, appropriate siting or hydro-seeding of stockpiles, limits on the amount and length of time material can be stockpiled onsite prior to removal and disposal or reuse elsewhere on campus, and implementation of all measures identified in the all BMPs identified in the RWQCB-approved SWPPP. All erosion	Less than significant with mitigation (Class II)

Impacts	Mitigation Measures	Residual Impacts
	control measures shall be listed on final grading plans and proper implementation shall be confirmed by the environmental compliance monitor throughout project construction. Implement **GS/mm-1**.	
GS Impact 5 The project would be located in a potentially unstable geologic unit or soil, exposing people and structures to unstable site conditions.	Implement **GS/mm-1**.	Less than significant with mitigation (Class II)
GS Impact 6 The project would be located in an area of moderately expansive soils, creating a risk of foundational and structural damage.	Implement **GS/mm-1**.	Less than significant with mitigation (Class II)
Master Plan Consistency		Less than significant (Class III)
Cumulative Impacts. No cumulative impacts related to these issues would occur as a result of additional development within the campus or city of San Luis Obispo adjacent to the project site and no additional measures are necessary.		Less than significant (Class III)
Hazards and Hazardous Materials		
HAZ Impact 1 Proximity of sensitive receptors poses special conditions which warrant mitigation to address idling of construction equipment and potential for discovery of manmade asbestos containing materials.	Implement **AQ/mm-2** and **AQ/mm-3**.	Less than significant with mitigation (Class II)
Fire Risk. Conformance with existing regulations will ensure less than significant impacts related to fire hazards.		Less than significant (Class III)
Cumulative Impacts. Due to the type of project proposed, and lack of hazards or hazardous materials within or near the project site, construction and operation of the project would not contribute substantially to environmental impacts related to hazards.		Less than significant (Class III)

Impacts	Mitigation Measures	Residual Impacts
Hydrology and Water Quality		
Violation of Standards or Degradation of Water Quality. The use proposed for the site is not considered a substantive risk to water quality. Risks to water quality associated with ongoing operation of the site are limited to leaking hydrocarbons from vehicles. The project will not increase impervious surfaces over existing conditions, and would result in fewer cars parked on site. The project is greater than 1 acre in size, and the University or its designee is, therefore, required to prepare a SWPPP which will cover site preparation, active construction, and post-construction conditions. The preparation and implementation of a SWPPP will be sufficient to reduce risks of water quality standard violation.		Less than significant (Class III)
Impacts to Groundwater. The project will not be served by groundwater. The project will increase the infiltration capacity of the site compared to existing conditions.		Less than significant (Class III)
Alterations in Drainage. The project will include the design and installation of new stormwater collection and conveyance systems pursuant to building code standards. The project will also be subject to measures outlined in the SWPPP. Compliance with existing codes and regulations will be sufficient to ensure the project does not result in sediment traveling off-site, or flooding off-site.		Less than significant (Class III)
Stormwater Capacity. The project will not increase stormwater reaching existing drainage systems; the site is currently paved and runoff is directed to developed stormwater systems. The project will include the design and installation of new stormwater collection and conveyance systems pursuant to building code and Low Impact Development standards. The project will also be subject to measures outlined in the SWPPP. Compliance with existing codes and regulations will be sufficient to ensure stormwater systems are designed to accommodate the flow anticipated.		Less than significant (Class III)

Impacts	Mitigation Measures	Residual Impacts
Cumulative Impacts. Stormwater and water quality impacts are site-specific, and mitigated by on-site permitting and design. The project will not contribute to cumulatively significant impacts to hydrology and water quality.		Less than significant (Class III)
Noise		
Short-term Noise. During construction activity, noise would potentially impact sensitive land uses, including schools and residences, in the vicinity. Construction noise will be temporary, restricted to daylight hours, and further conditioned by the application of Master Plan mitigation outlined in Appendix B, including limits on construction noise levels, special scheduling for work with unusual noise levels, restrictions of noise operating hours in the vicinity of residence halls, and location of stockpiling/staging areas in more remote portions of the site. Existing measures also include designation of haul routes away from sensitive receptors. Compliance with existing regulations will ensure less than significant impacts.		Less than significant (Class III)
Permanent Noise. The residential component of the project will not generate substantive ambient noise over existing conditions once operational. The proposed parking program would reduce the total number of parking spaces on-site, and reduce the number of vehicles accessing the site, and associated noise. Operational impacts are, therefore, considered less than significant. The project will not conflict with the policies of the City regarding transportation or land use as sources of noise in the community.		Less than significant (Class III)
Exposure. Based on the Acoustical Study prepared for the project, existing and predicted ambient noise levels are within accepted parameters for development of student housing. Structural ventilation (operable windows versus mechanical ventilation) will be designed in accordance with existing code requirements.		Less than significant (Class III)
Ground borne Vibration or Noise. The project will not be subjected to, or be a generator of, ground borne vibration or noise.		Less than significant (Class III)

Impacts	Mitigation Measures	Residual Impacts
Nuisance Noise. The site has been designed to generally orient buildings north or internal to the site, and to locate potential noise sources such as the parking structure, internal to campus. The University, as outlined in Section 4.5.1.2, has established regulations for nuisance noise events, in addition to regulations outlined by City law enforcement. This type of noise is considered highly sporadic and variable, and therefore does not constitute a permanent or temporary change in ambient noise levels.		Less than significant (Class III)
Plan Consistency. Based on the discussions above, the project would not conflict with plans or policies related to noise.		Less than significant (Class III)
Cumulative Impacts. Continued increases in enrollment and staffing at the University, and implementation of proposed facility projects listed in the cumulative development scenario would incrementally increase noise in the area. The project would not add perceptibly to the long-term ambient noise environment in the area		Less than significant (Class III)
Population and Housing		
Growth Inducement. The project consists of the development of approximately 1,475 beds of student housing to serve the existing freshman population. The project will serve an existing student population, and will not result in extension of infrastructure to new locations. The project does not increase enrollment. Approximately 30 new staff positions will be created by the project. This is not considered substantial growth within the region. The project will not, therefore, induce substantial population growth.		Less than significant (Class III)
Public Services and Recreation		
Fire. No additional improvements to facilities which could have an environmental impact have been identified.		Less than significant (Class III)
Police. The project will not generate call volume which will result in the need for additional equipment or facilities, which would cause an environmental impact.		Less than significant (Class III)

Impacts	Mitigation Measures	Residual Impacts
Public Safety. Pursuant to CEQA, impacts are considered significant if the project would result in environmental impacts associated with the provision of additional structures or facilities to support police and other public services. Incremental changes associated with the location of nuisance activity in the community will not result in the need for such facilities; alterations in police may include redistribution of patrols and additional personnel.		Less than significant (Class III)
Off-Site Recreation. Based on the proximity of substantial existing recreational facilities on campus, the provision of on-site recreational facilities, and the primacy of tenants and organized groups as facility users, the project is not expected to contribute substantially to deterioration of this facility, or increase use substantially such that additional recreational resources would need to be constructed to offset the impact.		Less than significant (Class III)
Plan Consistency. The project provides housing and parking pursuant to objectives of the Master Plan. The project would not conflict with policies and programs related to fire, police, or recreation.		Less than significant (Class III)
Cumulative Impacts. Continued development on and near campus would incrementally increase demand for fire protection services and recreational facilities. The University will continue to work with the City regarding public safety issues in the surrounding community; however, physical environmental impacts associated with facilities expansion are not anticipated.		Less than significant (Class III)
Transportation and Circulation		
TC Impact 1 The project would result in a loss of campus parking and the redistribution of trips to alternative parking lots in the project area, which would add trips to streets and intersections in the project vicinity. The additional trips could result in an exceedance of acceptable operational standards at intersections in the project vicinity, resulting in a potentially significant environmental impact.	No mitigation is identified.	Significant and unavoidable (Class I)

Impacts	Mitigation Measures	Residual Impacts
Pedestrian and Bicycle Circulation. The overall increase in pedestrian and bicycle traffic would not result in substantial congestion or significantly impact internal campus circulation.		Less than significant (Class III)
TC Impact 2 The addition of 1,475 students at the project location would substantially increase pedestrian trips on surrounding streets, resulting in potential safety hazards due to the lack of standard sidewalks along the project perimeter.	**TC/mm-1** Prior to final plan approval, Cal Poly shall develop and incorporate into project design plans a pedestrian management plan. As project specifications, the plan should include the following pedestrian improvements. All pedestrian improvements shall be designed in consultation with a qualified traffic engineer and shall meet or exceed applicable standards for the development of similar structures. a. Sidewalks should be provided around the frontage of the project site, including along Pacheco Way and along the north side of Slack Street. b. Marked crosswalks should be provided to transition pedestrians from the existing off-site sidewalk network to the on-site pedestrian facility network. The location of crosswalks should be determined in consultation with a qualified traffic engineer and should be sited to sufficiently deter pedestrians from leaving separated pedestrian facilities and entering surrounding roadways to access adjacent areas. c. Forecasted heavily traveled pedestrian areas, such as the Pacheco Way pedestrian crossing that provides access to the campus core, should be identified. The need to implement feasible measures to improve visibility of the facilities and promote comfortable walking and bicycling access to other areas of the campus shall be discussed. Recommendations shall be made by a qualified traffic engineer as to the need for such improvements, which could include enhanced bulbouts, raised crossings, lighting, or similar features.	Less than significant with mitigation (Class II)
Pedestrian and Cycling Facilities. The development of housing in this location may result in a localized increase in pedestrian and bicycle activity, particularly in those areas that front an arterial roadway. Off-campus pedestrian and bicycle trips associated with the project would be concentrated along Grand Avenue and, via internal campus roads, California Boulevard, and Foothill Boulevard, as those streets are equipped with pedestrian and bicycle facilities and provide		Less than significant (Class III)

Impacts	Mitigation Measures	Residual Impacts
more convenient connections. The project would result in a reduction in peak hour vehicle trips through the Grand Avenue campus gateway. The reduction in commuter trips would ultimately provide a more comfortable travel environment in the local area as the number of potential conflicts during the periods of heaviest vehicle travel would be reduced. Substantial bicycle facilities exist in the project vicinity as described in Section 4.6.1.2, above, and would provide adequate connection to areas where trips are likely to occur, including downtown San Luis Obispo, surrounding parks and recreational areas, and surrounding arterial roadways and access routes.		
Transit. Overall student enrollment is not expected to increase as part of the project; therefore peak hour transit ridership is not expected to increase.		Less than significant (Class III)
Emergency Access. The University is required, under existing regulations, to document sufficient emergency access, subject to a determination by the State Fire Marshal.		Less than significant (Class III)
Construction Traffic. Construction of the project will generate ongoing traffic associated with worker vehicles, equipment delivery and use, and materials delivery and haul-off. Compliance with incorporated Master Plan mitigation will be sufficient to address impacts.		Less than significant (Class III)
TC Impact 3 The project will have significant impacts when considered along with cumulative development.	No mitigation is identified.	Significant and unavoidable (Class I)
Cumulative Pedestrian, Bicycle, and Transit. The project is not expected to result in a substantial contribution to cumulative impacts to pedestrian, bicycle or transit facilities in the project area.		Less than significant (Class III)
Cumulative Access. Impacts related to access are site-specific.		Less than significant (Class III)

Impacts	Mitigation Measures	Residual Impacts
Utilities		
Wastewater. Sufficient capacity exists within both the University's share and the City's treatment plant for the total wastewater projected. The project would not create conditions in the waste stream which would adversely affect treatment processes or requirements.		Less than significant (Class III)
Water. Based on the discussion above and below in Section 4.8.5.5, there is sufficient capacity within existing water facilities, water treatment facilities, and wastewater treatment facilities to serve the proposed project.		Less than significant (Class III)
Power. The project will not require the expansion of power generating infrastructure. Impacts are limited to upgraded transmission systems within the project site.		Less than significant (Class III)
Master Plan Consistency. The project would develop housing consistent with bedcount predicted in the Master Plan. The project would not conflict with planning for utilities.		Less than significant (Class III)
UTIL Impact 1 Continued growth on campus will exceed the University's existing share of the wastewater treatment plant by 2035.	**UTIL/mm-1** The University will continue to monitor wastewater volumes and purchase additional shares in the treatment plant prior to exceedance of current agreement limits.	Less than significant (Class III)

CHAPTER 1
INTRODUCTION

California Polytechnic State University, San Luis Obispo (the University or Cal Poly) proposes to construct approximately 1,475 beds of freshman housing and a 300- to 500-space parking structure at the present location of the General (G)-1, G-4, and Residential (R)-2 parking lots. This project is subject to the discretionary approval of The California State University (CSU) Board of Trustees (The Trustees) and is, therefore, a project under the California Environmental Quality Act (CEQA).

1.1 PURPOSE OF THE EIR

The purpose of this Environmental Impact Report (EIR) is to identify the proposed project's significant impacts on the environment, indicate the manner in which such significant impacts would be mitigated or avoided, and identify alternatives to the proposed project that avoid or reduce these impacts. This EIR is intended to serve as an informational document for use by the Trustees, other responsible agencies, and the general public in their consideration and evaluation of the environmental consequences associated with the implementation of the proposed project on the environment. This document is provided to decision-makers and the public for their review and comment as required by CEQA. Under the CEQA process, an EIR must serve as a full disclosure document that enables the lead and responsible agencies to fully evaluate potential environmental impacts and the consequences of their decision on a proposed project. This EIR has been written to comply with the requirements of CEQA.

1.2 SCOPING AND NOTICE OF PREPARATION PROCESS

In compliance with CEQA Guidelines, the University has taken steps to provide opportunities to participate in the environmental process. During the environmental determination process, an effort was made to contact various federal, state, regional, and local governmental agencies and other interested parties to solicit comments and inform the public of the proposed project. This included the distribution of the Notice of Preparation (NOP) on September 26, 2013, to various agencies, organizations, and interested persons throughout San Luis Obispo County and the surrounding area. The proposed project was described, the scope of the environmental review was identified, and agencies and the public were invited to review and comment on the NOP. A public scoping meeting was held October 8, 2013, during which public comment from approximately 12 attendees was taken regarding the scope of the EIR. The close of the NOP review period was October 25, 2013. Agencies, organizations, and interested parties not contacted or who did not respond to the request for comments about the project during the preparation of the Draft EIR currently have the opportunity to comment during the 45-day public review period on the Draft EIR.

1.3 EIR CONTENTS

The scope of the EIR includes issues identified by the lead agency during the preparation of the NOP for the proposed project, as well as environmental issues raised by agencies and the general public in response to the NOP and at the scoping meeting. The EIR is divided into the following major sections:

Executive Summary. Provides a brief summary of the project background, description, impacts and mitigation measures, and alternatives.

Introduction. Provides the purpose of an EIR, as well as scope, content, and the use of the document.

Project Description. Provides the general background of the project, objectives, a detailed description of the project characteristics, and a listing of necessary permits and government approvals.

Environmental Setting. Describes the physical setting and surrounding land uses.

Environmental Impacts Analysis. Discusses the environmental setting as it relates to the various issue areas, regulatory settings, thresholds of significance, impact assessment and methodology, project-specific impacts and mitigation measures, cumulative impacts, and secondary impacts. The EIR analyzes the potentially significant impacts to the following resource areas, as identified during the preparation of the NOP:

- Aesthetic Resources
- Air Quality/Greenhouse Gases
- Geology and Soils
- Noise
- Public Services and Recreation
- Traffic and Circulation
- Utilities

In addition, the EIR includes a section titled "Issue Areas with Less than Significant Impacts" which evaluates the impacts to the following resource areas:

- Agricultural and Forestry Resources
- Biological Resources (nesting birds)
- Cultural Resources
- Hazards and Hazardous Materials
- Hydrology and Water Quality
- Land Use and Planning
- Mineral Resources

Alternatives Analysis. Summarizes the environmental advantages and disadvantages associated with the project and alternatives. As required, the "No Project" alternative is included among the alternatives considered. An "Environmentally Superior Alternative" is identified.

Other CEQA Considerations. Identifies growth-inducing impacts and includes a discussion of long- and short-term productivity and irreversible environmental changes.

Mitigation Monitoring and Reporting Plan. This section contains a matrix of all mitigation measures contained in the EIR, the requirements of the mitigation measures, the applicant's responsibility and timing for implementation of these measures, the party responsible for verification, the method of verification, and verification timing.

1.4 PROJECT SPONSORS

Lead Agency:
California State University Board of Trustees
401 Golden Shore
Long Beach, CA 90802-4210

Dr. Steven Lohr, Ed.D., Chief, Land Use and Environmental Review

Project Applicant:
California Polytechnic State University, San Luis Obispo
Facilities Planning and Capital Project
Building 70
1 Grand Avenue
San Luis Obispo, CA 93407

Mr. Joel Neel, Director

Environmental Consultant:
SWCA Environmental Consultants
1422 Monterey Street, Suite C200
San Luis Obispo, CA 93401

Ms. Nicole Carter, Project Manager

1.5 REVIEW OF THE DRAFT EIR

This Draft EIR was distributed to responsible and trustee agencies, other affected agencies, surrounding cities, interested parties, and all parties requesting a copy of the Draft EIR in accordance with Public Resources Code 21092(b)(3). The Notice of Completion and Notice of Availability of the Draft EIR was also distributed as required by CEQA. During this 45-day period, the EIR and all technical appendices are available for review at the following locations:

Robert E. Kennedy Library
Cal Poly Campus
1 Grand Avenue
San Luis Obispo, CA 93407

San Luis Obispo City/County Library
995 Palm Street
San Luis Obispo, CA 93401

On behalf of the lead agency, comments on the Draft EIR shall be addressed to:

CSU Board of Trustees
c/o Nicole Carter, Senior Planner
SWCA Environmental Consultants
1422 Monterey Street, C200
San Luis Obispo, CA 93401

Email comments shall be sent to: ncarter@swca.com.

The public review period is 45 days. Written responses to all significant environmental issues raised will be prepared and included as part of the Final EIR and the environmental record for consideration by decision-makers for the project.

1.6 COMMONLY USED ACRONYMS

The following acronyms are used extensively in the EIR. The acronyms are spelled out the first time they are used in the EIR, but are also provided in Table 1-1 below.

Table 1-1. Commonly Used Acronyms

Acronym	Term
°F	degrees Fahrenheit
AB 32	Assembly Bill 32, California Global Warming Solutions Act of 2006
ADA	Americans with Disabilities Act
af	acre foot
afy	acre-feet per year
AIRFA	American Indian Religious Freedom Act
ARPA	Archaeological Resources Protection Act
Basin Plan	Water Quality Control Plan for the Central Coast Region
BMPs	best management practices
BOD	Biological oxygen demand
BSC	California Building Standards Commission
C5	Central Coast Clean Cities Coalition
Cal Poly	California State University, San Luis Obispo
CalEEMod	California Emissions Estimator Model
CalEPA	California EPA
CALFIRE	California Department of Forestry and Fire Protection
California CAA	California Clean Air Act
Caltrans	California Department of Transportation
CAP	Campus Administrative Policies
CARB	California Air Resources Board
CBC	California Building Code
CCCP	California Climate Change Portal
CCIC	Central Coast Information Center
CCR	California Code of Regulations
CDFW	California Department of Fish and Wildlife

Table 1-1. Commonly Used Acronyms

Acronym	Term
CEC	California Energy Commission
CEQA	California Environmental Quality Act
CESA	California Endangered Species Act
CFR	Code of Federal Regulations
CH_4	methane
CHRIS	California Historical Resources Information System
City	City of San Luis Obispo
CNEL	Community Noise Equivalent Level
CO_2	carbon dioxide
County	County of San Luis Obispo
CPC	California Plumbing Code
CPUC	California Public Utilities Commission
CRHR	California Register of Historical Resources
CSU	California State University
dB	Decibels
dBA	A-weighted decibels
DD	doubling of distance
DOC	California Department of Conservation
DPM	Diesel Particulate Matter
DTSC	Department of Toxic Substances Control
EIR	Environmental Impact Report
EO	Executive Order
EPA	U.S. Environmental Protection Agency
ESA	Federal Endangered Species Act
fc	foot-candle
Federal CAA	Federal Clean Air Act
FHWA	Federal Highway Administration
G	General

Table 1-1. Commonly Used Acronyms

Acronym	Term
g/L	grams per liter
GHG	greenhouse gas(es)
H	Housing communities/sites
HFCs	hydrofluorocarbons
IBC	International Building Code
ITE	Institute of Transportation Engineers
lbs/day	pounds per day
Ldn	Day-night average sound level
LEED	Leadership in Energy & Environmental Design
LID	Low Impact Development
LOS	levels of service
LUST	Leaking Underground Storage Tank
MBTA	Migratory Bird Treaty Act of 1918
mgd	million gallons per day
$MMtCO_2e$	million metric tons of CO_2 equivalent
mph	miles per hour
$MTCO_2e/yr$	metric tons of CO_2 equivalent per year
MUTCD	California Manual of Uniform Traffic Control Devices
N_2O	nitrous oxide
NAGPRA	Native American Graves Protection and Repatriation Act
NAHC	Native American Heritage Commission
NEPA	National Environmental Policy Act
NHPA	National Historic Preservation Act of 1966
NOAA	National Oceanic and Atmospheric Administration
NOAA Fisheries	NOAA National Marine Fisheries Service
NOP	Notice of Preparation
NOx	nitrogen oxides
NPDES	National Pollutant Discharge Elimination System

Table 1-1. Commonly Used Acronyms

Acronym	Term
NRCS	Natural Resource Conservation Service
NRHP	National Register of Historic Places
OES	Office of Emergency Services
OHP	Office if Historic Preservation
PAC	Performing Arts Center
PFCs	perfluorocarbons
PG&E	Pacific Gas and Electric
PM_{10}	respirable particulate matter
PRC	Public Resources Code
R	Residential
RA	Residential Assistants
ROG	reactive organic gas
RTA	Regional Transit Authority
RWQCB	Regional Water Quality Control Board
SB	Senate Bill
SCCAB	South Central Coast Air Basin
SEAOC	Structural Engineers Association of California
SF_6	sulfur hexafluoride
SHPO	State Historic Preservation Officer
SLCUSD	San Luis Coastal Unified School District
SLO	San Luis Obispo
SLO Transit	San Luis Obispo Transit
SLOAPCD	San Luis Obispo County Air Pollution Control District
SO_2	sulfur dioxide
SWPPP	Stormwater Pollution Prevention Plan
SWRCB	State Water Resources Control Board
TCP	Transportation Choices Program
TDM	Transportation Demand Management

Table 1-1. Commonly Used Acronyms

Acronym	Term
The Trustees	CSU Board of Trustees
TIA	Transportation Impact Analysis
TPY	Tons per year
TSM	Transportation Study Manual
UBC	Uniform Building Code
UNIPCC	United Nations Intergovernmental Panel on Climate Change
University	California State University, San Luis Obispo
UPRR	Union Pacific Railroad
USACE	U.S. Army Corps of Engineers
USDA	U.S. Department of Agriculture
USFWS	U.S. Fish and Wildlife Service
VOC	volatile organic compounds
WSA	Water Supply Assessment

CHAPTER 2
PROJECT DESCRIPTION

Cal Poly proposes to construct approximately 1,475 beds of freshman housing and a 300- to 500-space parking structure at the present location of the General (G)-1, G-4, and Residential (R)-2 parking lots. A description of the project location, project history, and project elements are provided within this chapter, discussed in the sections below.

2.1 GENERAL BACKGROUND

2.1.1 Project Location

Cal Poly is located northeast of the city of San Luis Obispo, approximately midway between San Francisco and Los Angeles on California's central coast. The university campus occupies over 6,000 acres. University lands include range and agricultural areas as well as natural preserves, in addition to more developed areas. The more developed portion of campus is identified as the "campus instructional core" and includes agricultural support facilities and academic, housing, and administrative buildings. The campus instructional core is generally bound by Highland Drive on the north, California Boulevard on the west, Slack Street on the south, and primarily undeveloped foothills on the east.

The project location and project boundaries are shown in Figures 2-1 through 2-3. The project site is located at the southeastern edge of the campus instructional core northwest of the intersection of Grand Avenue and Slack Street. The Grand Avenue and Slack Street entrance is the main entry point for the campus. The site is currently occupied by the G-1, G-4, and R-2 parking lots and encompasses approximately 12 acres. These parking lots provide approximately 1,324 surface parking spaces for staff, campus residents, and the general population.

The site is bordered by Slack Street and the former Pacheco Elementary School to the south. The site is elevated approximately 6-10 feet above Slack Street and is screened by this topographical separation and existing mature trees. The former school is owned by the San Luis Coastal Unified School District but is leased to several entities. As of July 2013, the buildings most proximate to the project site are occupied by several private schools. Other occupants of the facility include a public preschool and public children's therapeutic services.

Residential neighborhoods are located to the east and west of the former Pacheco Elementary School, south of the project site. Residences in these areas are predominantly single family, and include units rented to students. Proximate campus development includes the Performing Arts Center (PAC), Vista Grande Dining, and Sage Restaurant to the north; student residence halls, a parking kiosk, and vacant University-owned land to the east; and a parking structure, athletic fields, and athletic facilities to the west. The project location is shown in Figures 2-1 through 2-3.

Figure 2-1. Project Vicinity Map

Figure 2-2. Project Location Map

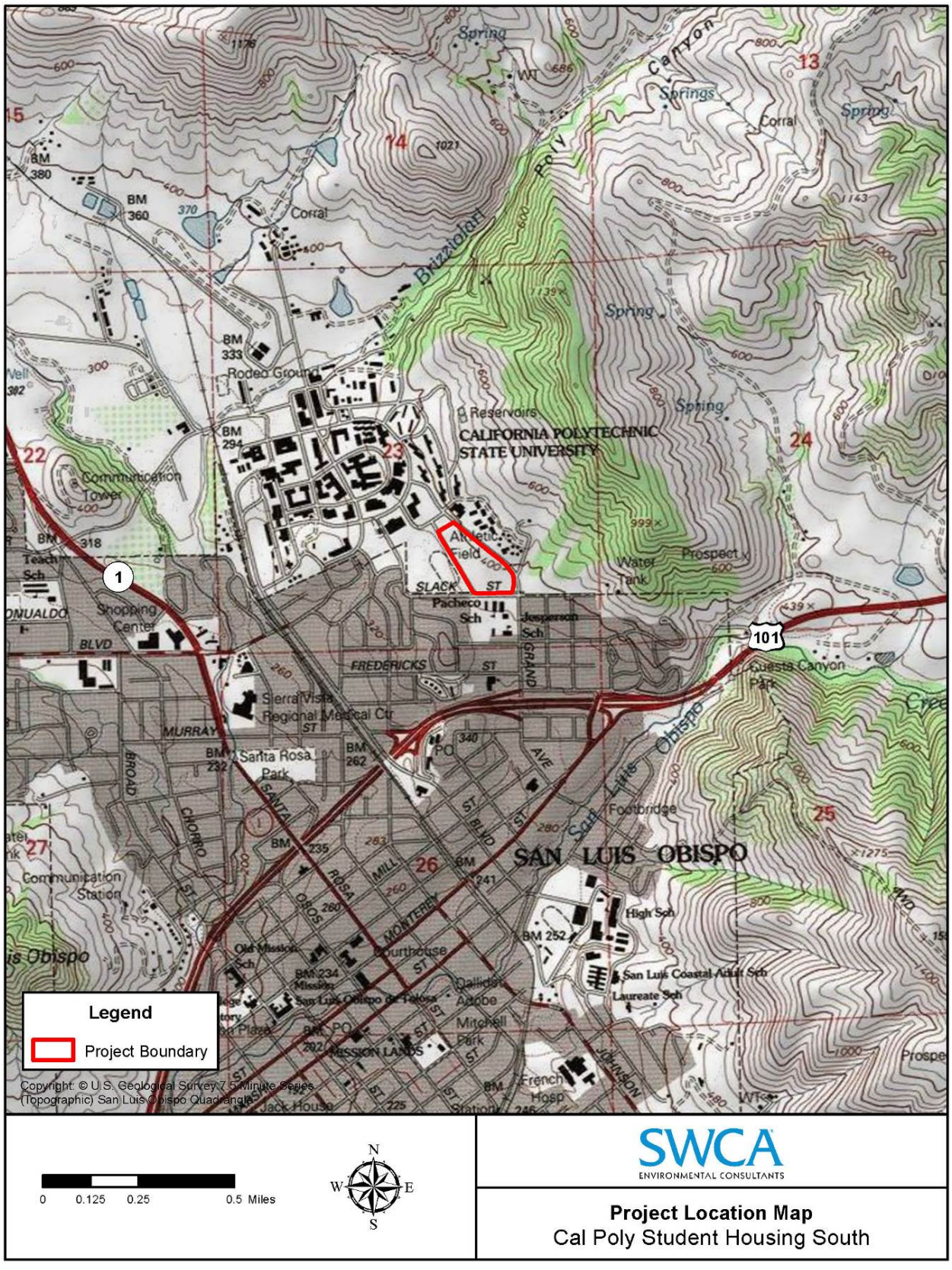


Figure 2-3. Preliminary Site Plan

2.1.2 Project Background

The 2001 Cal Poly Master Plan is the primary document governing land use and capital improvements on campus through the year 2020. The Master Plan includes several elements which guide development on campus, including, but not limited to: Campus Instructional Core, Residential Communities, Circulation, and Parking. The Master Plan establishes land uses for the entire campus and outlines principles to guide future development. The Master Plan does not set specific standards for development; however, development pursuant to the Master Plan is conditioned by mitigation measures outlined in the Master Plan EIR, as applicable.

The Residential Communities element identifies constraints associated with housing on campus and communitywide, outlines principles to guide the housing program on campus, and identifies several locations for housing communities (H) on University lands (refer to Figure 2-4). Housing constraints on campus at the time the Master Plan was prepared included limited choice of housing type, restrictive meal plans, and long waiting lists. Off-campus, constraints included low vacancy rates, high costs, neighborhood concerns, and issues with access to the campus. A program of residential development was prepared for the Master Plan in response to ongoing housing constraints. Since the Master Plan was adopted, several of the planned housing complexes have been constructed (refer to Table 2-1).

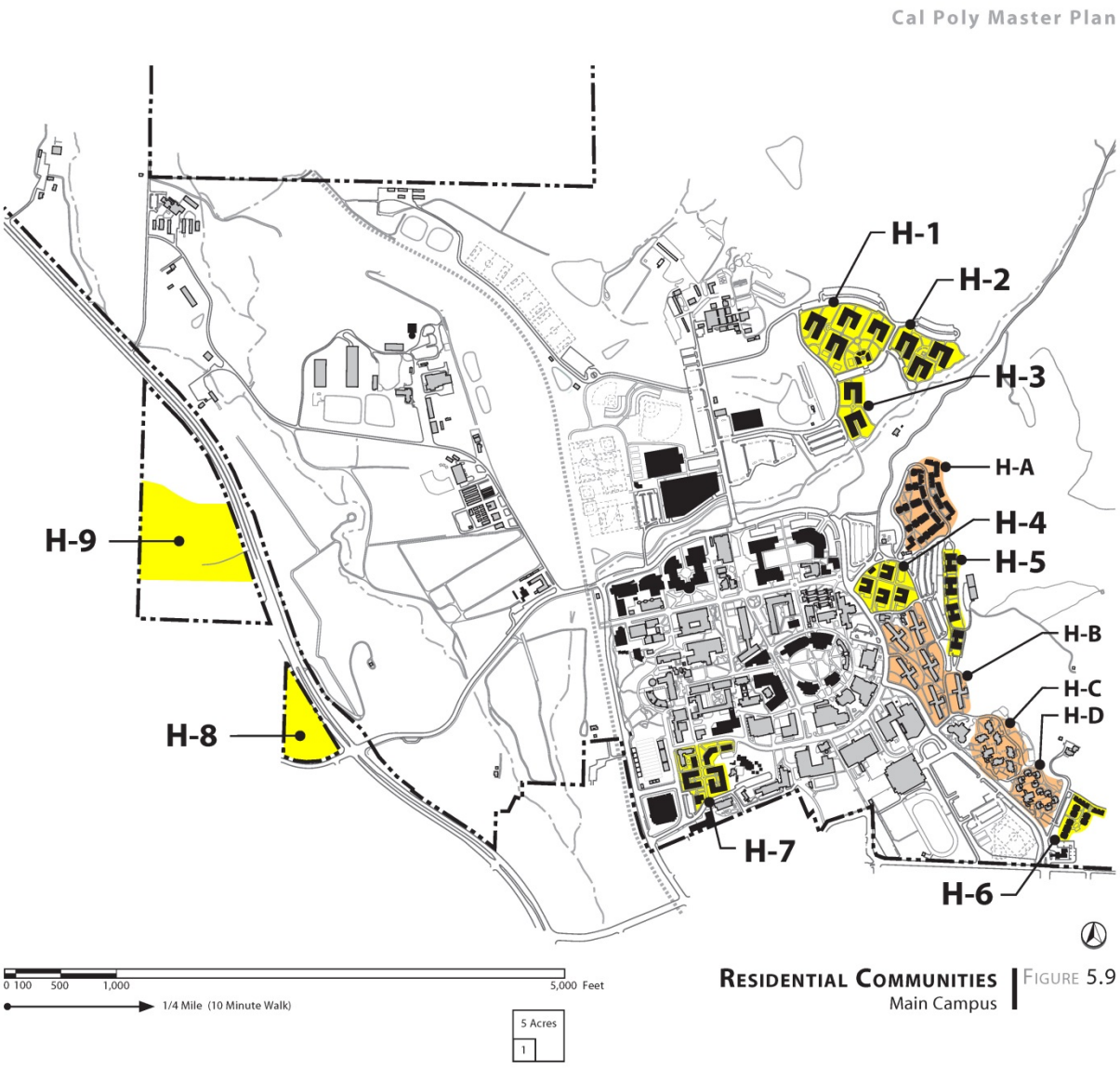
Table 2-1. Residential Complexes Completed Since 2001

Housing Project	Name	Notes
H-1, H-2, and H-3	Poly Canyon Village	Three housing sites were combined, and amended to increase total beds from 1,620 to 2,660 in an apartment configuration. Constructed in 2008.
H-8	Bella Montana	Constructed in 2006. Provides 69 condominiums for faculty and staff.
H-A	Cerro Vista Apartments	Construction was completed in 2003. Provides 796 beds in an apartment configuration.

With the completion of the complexes outlined in Table 2-1, Cal Poly offers 6,239 beds in student housing, a significant increase from the 2,838 beds available at the time of Master Plan adoption. The percent of students housed on campus has increased from approximately 16% in 2001 to over 35% in 2012; however, the current demand continues to exceed the available supply. The existing bed count includes over 600 beds in triple occupancy to meet some portion of the excess demand, and the campus continues to maintain a waiting list. The University is also housing freshman in Poly Canyon Village, which was specifically designed for upperclassmen. Therefore, Cal Poly continues to explore additional residential development options on campus.

Several additional housing sites have been included in the housing program. However, the University has identified constraints to development on the following mapped locations (refer to 2-4 and Table 2-2).

Figure 2-4. Master Plan Residential Communities Plan



LEGEND

- New Residential Communities
  - **H-1** Apartment Style Residences - 720 Beds
  - **H-2** Apartment Style Residences - 540 Beds
  - **H-3** Apartment Style Residences - 360 Beds
  - **H-4** North Mountain Housing Redevopment Apartment Style Residences - 420 Beds (120 beds net)
  - **H-5** Dormitory Style Residences - 512 Beds
  - **H-6** Apartment Style Residences - 136 Beds
  - **H-7** Apartment Style Residences - 612 Beds
  - **H-8,9** Off-Campus Housing - Faculty and Staff
- Existing Residential Communities
  - **H-A** New Housing - Underway
  - **H-B** South Mountain (Red Brick) Residence Halls
  - **H-C** Sierra Madre Hall
  - **H-D** Yosemite Hall

Note: Apartment Style Residences will accommodate returning students

Table 2-2. Constraints to Residential Development

Housing Project	Notes
H-4	The Master Plan envisioned redevelopment of the existing North Mountain Housing to net a gain of 120 beds. The North Mountain Housing units were completed in 1953, and are not financed. The University has determined that the temporary loss of housing units would be detrimental, and that the increased debt burden would not be cost-effective.
H-5	This project would entail the replacement of a portion of a surface parking lot with 512 dormitory-style beds. Site constraints, including slope and drainage, limit potential bed count on this site and significantly increase costs associated with development. Increased costs are due, in part, to the substantial increase in building height required to accommodate the site constraints (up to seven stories).
H-6	The Master Plan identified the potential for 136 apartment-style beds at this location. Subsequent site review identified slope and drainage constraints which would severely limit potential bed count on-site and substantially increases costs.
H-7	The Master Plan identified the potential for 612 apartment-style beds in this location. Subsequent environmental review of the area in the Mustang Stadium EIR (2004) identified the historic resource potential of structures in the area, further limiting the development potential in this portion of campus.

Constraints at the remaining housing sites identified in the Master Plan have led to the consideration of the proposed site for residential development. The current site is further considered because of proximity to other existing freshman housing, and existing communal dining facilities. Under the current proposal, the bed count identified in the Master Plan for housing sites H-4 through H-7 would be consolidated at the current site and the complexes at sites H-4 through H-7 would not be pursued under the current Master Plan. The project is intended to meet existing and projected demand for housing. The project does not increase enrollment over current levels. The Poly Canyon Village project, developed in 2008, included an amendment to the total Master Plan bed count, and an EIR was certified for the project. The proposed housing does not increase bed count over projections in the Master Plan, as amended.

The proposed site is currently designated for Parking and Recreation, Athletics, and Physical Education. The Master Plan would be amended to reflect the alteration in the land use, the parking and residential community elements, as well as the ultimate project footprint. The Master Plan amendment is limited to location of beds; total bed count projected and other aspects of the residential community plan would be unchanged. Development of a parking structure in this location requires a Master Plan amendment to denote the ultimate footprint.

Other campus planning documents have already identified the potential for residential use of the proposed site. The 2010 Campus Land Use and Design Guidelines (Guidelines) “zone” the area in question “R-4.” Allowable uses are specified as “residential uses, with parking and related support services, including open spaces, recreation facilities, study areas, and retail.” The Guidelines were developed using both direction given in the Master Plan and subsequent studies throughout the campus. The Guidelines are intended as an advisory document and have not been formally adopted. The difference in land use specified for the proposed site in the Guidelines as opposed to the Master Plan indicates an evolution in both the housing program and in the understanding of constraints to development on campus.

Parking on campus is managed by the Parking Services division of the University Police Department. Parking has evolved considerably since adoption of the current Master Plan, resulting in several changes in development and management strategies. At the time of Master Plan adoption, parking supplies were constrained, as a much higher percentage of the campus population commuted. Several new structures and surface lots, including remote storage lots, were programmed in the Master Plan to accommodate projected demand, and consolidate supply. Two structures were completed as part of the Poly Canyon Village housing project, a new gravel parking lot was constructed off Mount Bishop Road, and an additional parking structure was programmed and approved as part of the Mustang (Spanos) Stadium project. The stadium parking has not yet been built and is not currently programmed for construction. Two additional parking structures were proposed in the Master Plan for locations north of the library, but have not been pursued to date.

Table 2-3. Parking Facility Occupancy

Facility	Capacity	Average Occupancy	Percent Occupancy
General (Non-Residential Parking)			
H-1	366	23	6%
H-12	441	417	95%
H-14	367	108	30%
H-16	506	365	72%
G-1	426	354	83%
Grand Avenue Structure	618	561	91%
Resident Only Parking			
R-1	789	718	91%
R-3	940	532	57%
R-4	971	604	62%
Combined Residential/General Parking			
R-2/G-4	898	503	56%

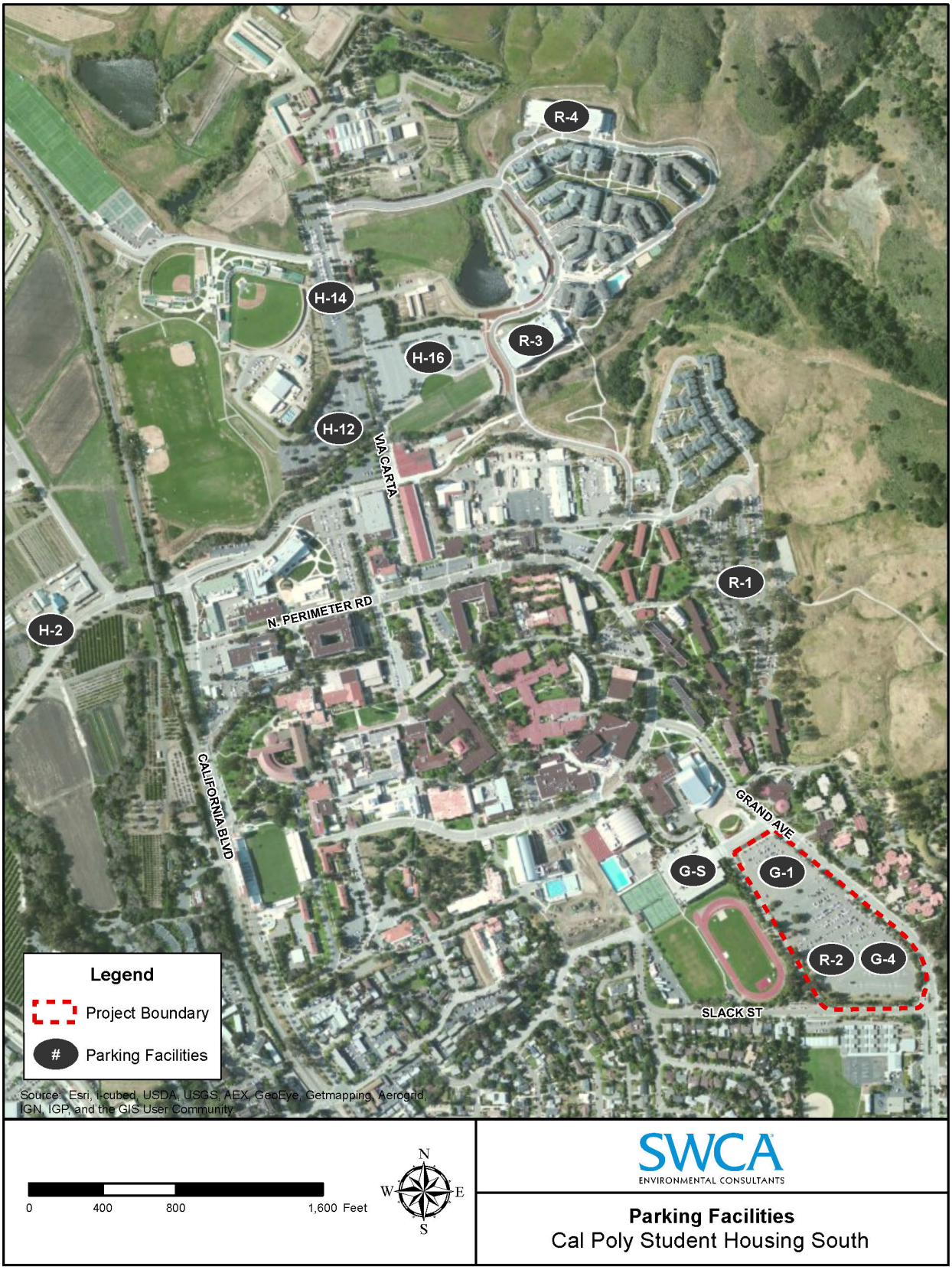
Source: University Police Department and Fehr & Peers, July 2013.

Additional, approved parking structures have not been built in part because of declining use of existing parking facilities. Reductions in use are associated with reduced commute trips to campus, increased on-campus housing, and reductions in parking demand from campus residents. Implementation of the Master Plan has also included improvements in bicycle and pedestrian systems in and near campus, including striping, signage, bicycle racks, closure of South Perimeter Road, and installation of pathways along California Boulevard, as well as the continuation of bus and carpool subsidies. These factors have combined to create excess capacity in the existing parking facilities on campus. Table 2-3 outlines general occupancy statistics for several campus parking facilities. A map of campus parking facilities is provided as Figure 2-5.

Although use fluctuates depending on the season and events on campus, such as construction projects, tours, and special events, parking facilities on campus generally provide excess capacity. The R-2/G-4 lot, for example, is used for overflow parking for tours and construction worker vehicle parking.

The Master Plan, while programming several new parking facilities, set forth a joint goal of reducing parking demand by 2,000 spaces. New parking facilities were intended to consolidate, rather than expand, parking, and to provide redevelopment opportunities in areas of existing surface lots. Although the project site was not initially proposed for housing, the Master Plan allowed for redevelopment of a portion of the site with Recreation, Athletics, and Physical Education land uses.

Figure 2-5. Parking Facilities Map



2.2 PROJECT OBJECTIVES

The project is being pursued with the following objectives:

- Reallocate beds currently occupied by freshman in complexes designed for upperclassmen.
- Reduce the use of triple-bed configurations in existing units.
- Address ongoing excess demand for on-campus housing.
- Progress towards the goal of housing 100% of the freshman class on campus.
- Continue to enrich and develop the residential community on campus.
- Continue to reduce impacts associated with commuting students, including traffic and related air quality impacts.
- Continue to utilize campus lands for the "highest and best use" including reallocation of excess parking areas for instructional or residential uses within the developed campus instructional core.

2.3 PROPOSED PROJECT

Specific components of the project are outlined below; the project also incorporates all applicable mitigation measures from the 2001 Master Plan. These measures are listed in Appendix B.

2.3.1 Grading and Site Preparation

Initial site preparation would include removal of pavement and other existing features. Where feasible, the University recycles debris on campus; for this project, it is assumed that paving debris and lighting features would be disposed of off-site at an approved landfill. According to the Geotechnical Report (Earth Systems 2013) prepared for the project, there is evidence of undocumented fill underlying the existing parking area. The project assumes excavation of approximately 5 feet of soil across the entire site, or 2.6 million cubic feet (96,800 cubic yards). Excavated material may be recompacted and reused on-site, used elsewhere on campus, or may be exported. Existing landscaping, which consists mainly of mature, non-native trees, will be removed. Primary access for construction vehicles will be provided off Grand Avenue, with alternate access provided via Pacheco Way to Slack Street.

Site grading will recontour the site to focus drainage towards the proposed greenspace and bioswale generally located in the site's midsection. The parking structure will be built partially into the slope, with one or two stories below average grade. The project will result in disturbance of the entire 12-acre site.

2.3.2 Structures

The project will provide approximately 1,475 beds in seven four- to five-story towers totaling approximately 450,000 gross square feet. The preliminary site plan is shown in Figure 2-3. The preliminary site design includes seven residential structures, oriented around a central greenspace and bioswale. A parking structure will be situated on the northern end of the site,

with primary access off Grand Avenue via the existing access road to the G-1 parking structure. Building height is a maximum of 60 feet. Residential structures will be four and five stories. The parking structure is proposed to be a maximum of four stories, with one to two stories below average grade.

The residential structures are designed oriented internally to the site; primary building ingress and egress points are likewise oriented north or internal to the site. Amenities within suites will include shared restrooms and showers, as well as space for a sink, microwave, and refrigerator. Full kitchens will not be provided in the units; however, communal kitchen spaces will be provided for each floor. Each floor will also include a central gathering/study area. Laundry facilities will be provided on site.

Design is underway; structural design components will include articulated façades, and staggering of roofs, buildings, and façades. Preliminary axonometric projections and renderings are provided in Figures 2-6 through 2-9.

Figure 2-6. Rendering of Building

Approximately 20,000 square feet of ancillary uses will “wrap” portions of the northern, eastern, and southern façade of the parking structure to soften the structure’s appearance (refer to Figure 2-10). Potential uses include facilities services (central plant, custodial, mailroom, workshop, and electrical room), several support staff offices, a community lounge with restrooms, a coffee shop, and a welcome center and meeting room.

Figure 2-7. Rendering of Building

Outdoor areas will be landscaped with turf and drought tolerant landscaping, consisting primarily of trees. Pedestrian and bicycle pathways will be installed connecting to campus. The preliminary site design includes recreational facilities such as a sand volleyball court, a half basketball court, and a variety of small paved patios for use by the residents. The analysis assumes approximately 0.5 acres of turf, 5 acres of other landscaping, including bioswales, and 2.5 acres of flatwork/paving in sidewalks, patios, and similar features.

The University is pursuing Leadership in Energy & Environmental Design (LEED) certification for the project, and the site is being designed consistent with the guidelines for "Low Impact Development" (LID). Site features which meet the guidelines include:

- approximately 1,000 linear feet of bioswale;
- pavers;
- landscaping; and,
- site grading to maximize infiltration.

2.3.3 Utilities

Existing water lines, wastewater infrastructure, power and gas infrastructure, and stormwater facilities are located on or proximate to the site. Eight-inch water lines are located in Grand Avenue; 8-inch sewer lines are likewise located in Grand Avenue. An existing 42-inch storm drain traverses the northern third of the site from the northeast to the southwest. The University provides power via an existing substation located at the Cerro Vista housing complex; conduit is located at Grand Avenue.

For the purposes of this analysis, it is assumed that the project will require entirely new on-site water infrastructure, wastewater infrastructure, and gas and electrical power infrastructure, as well as substantive new on-site stormwater facilities. Improvement of water systems will consist of installation of an on-site distribution system; improvements to existing water mains at Grand Avenue are not required. A new wastewater collection system will be installed; the onsite

collection system will either tie-in to existing pipelines at Grand Avenue via a lift station, or will gravity feed to existing pipelines near the Recreation Center. The latter will require trenching and installation of new lines from the site to the Recreation Center within the campus (approximately 3,700 linear feet). Stormwater infrastructure will include passive and "hard-pipe" components. As mentioned previously, the project includes components such as bioswales which are considered passive stormwater technologies. The project will also include installation of new storm drains which will both reroute existing drainage from Grand Avenue and areas to the east, and accommodate excess flow from the site. No improvements to the existing power distribution systems are proposed; entirely new on-site electrical distribution systems will be installed.

Heating for climate control and water would be provided by one of three options: additional capacity at the central plant, installation of a cogeneration or fuel cell system on-site, or installation of approximately 10 boilers within the buildings. The project may also include rooftop solar energy systems to supplement climate control and power demand.

2.3.4 Access and Parking

Primary vehicular access to the site will be from Grand Avenue, via the existing northern access road for the G-1 parking structure. Emergency and service access will be from Grand Avenue and Pacheco Way. Vehicle parking will be provided in a four-story parking structure, comprising approximately 300 to 500 spaces. Primary access to the structure will be from the northern access road. A small surface parking lot (approximately 20 spaces) will be available for short-term and disabled use.

The project includes pedestrian access throughout the site, primarily oriented towards the intersection of Grand Avenue and the northern access road. Bicycle racks will be provided throughout the site; the project will provide at least one bicycle space per bed.

2.3.5 Employment

The completed housing project will support approximately 30 new professional staff positions. Staffing will otherwise be provided by current students and existing staff.

2.3.6 Timing/Schedule

Construction of the project is expected to occur in one phase over approximately 31 months beginning in Winter 2014/2015.

2.3.7 Approvals

The CEQA Guidelines distinguish among "Lead," "Responsible," and "Trustee" agencies based on their responsibilities for carrying out or approving certain aspects of a project. The CSU Board of Trustees is the Lead Agency for the project. A "Responsible Agency" refers to an agency other than the Lead Agency that has discretionary approval over the project. No other agency has discretionary approval over the project as a whole. Agencies that may use this document in their permitting roles include the Regional Water Quality Control Board (RWQCB), San Luis Obispo County Air Pollution Control District (SLOAPCD), City of San Luis Obispo (City), and State Fire Marshal.

A National Pollutant Discharge Elimination System (NPDES) Storm Water Permit will be required for the project since it will involve construction on more than 1 acre. All building permits

are handled internally through the CSU system, except for plan approval by the State Fire Marshal and the Division of the State Architect for access compliance. This environmental document is intended to provide project-specific information to support the following CSU approvals:

- Non-State Amendment to the Capital Outlay Budget Change Proposal (COBCP)
- Major Master Plan Amendment
- Project EIR Approval/Certification
- Final Project and Schematic Design Approval

A “Trustee Agency” refers to a state agency having jurisdiction by law over natural resources affected by a project. Trustee agencies for the project are limited by law to the California Department of Fish and Wildlife (CDFW) and State Lands Commission.

Figure 2-8. Axonometric Projection of Proposed Project

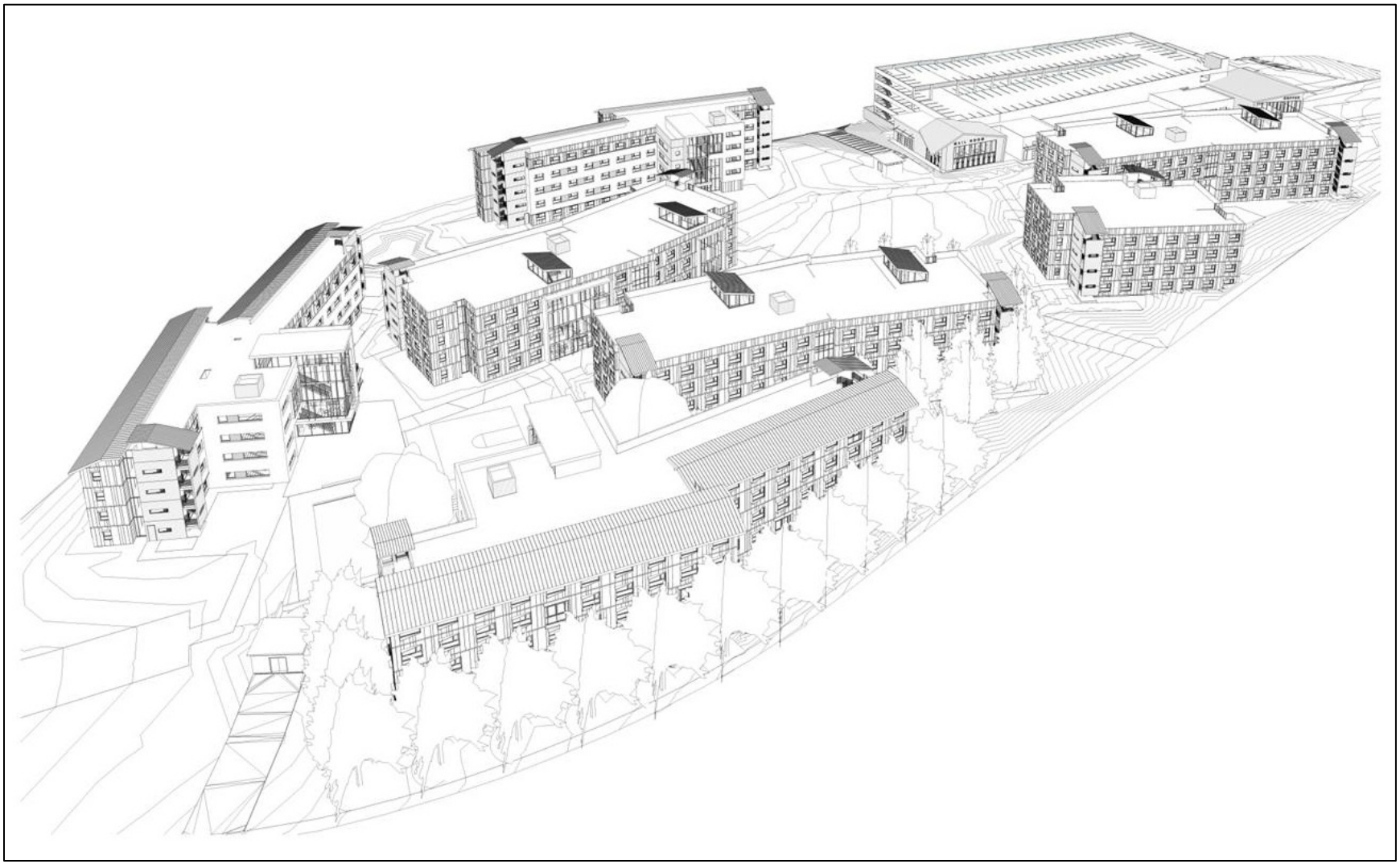
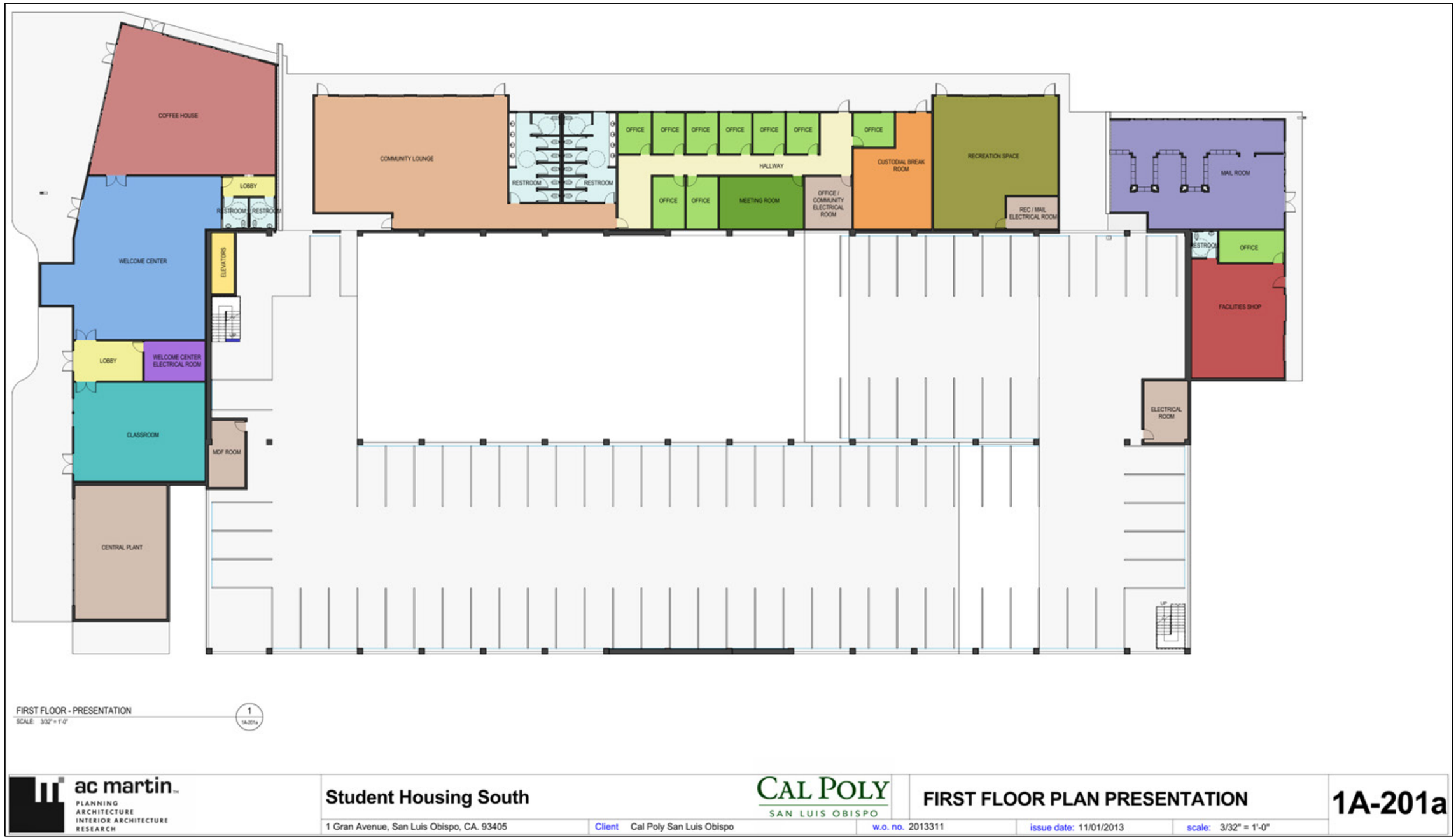


Figure 2-9. Axonometric Projection of Proposed Project

Figure 2-10. Preliminary Floor Plan, Parking Garage and Ancillary Services



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CHAPTER 3
ENVIRONMENTAL SETTING

This chapter of the EIR addresses the project area's environmental setting and existing and designated land uses in the project area, and provides an overview of relevant lands use plans and a policy consistency analysis. Also included in this chapter is a discussion of the cumulative development scenario.

3.1 EXISTING CONDITIONS

3.1.1 Physical Setting

Cal Poly is located northeast of the city of San Luis Obispo, approximately midway between San Francisco and Los Angeles on California's central coast (refer to Figure 2-1). The University campus occupies over 6,000 acres. University lands include range and agricultural areas as well as natural preserves, in addition to more developed areas. The more developed portion of campus is identified as the "campus instructional core" and includes agricultural support facilities and academic, housing, and administrative buildings encompassing an area of approximately 250 acres. The campus instructional core is generally bound by Highland Drive to the north, California Boulevard to the west, Slack Street to the south, and primarily undeveloped foothills to the east.

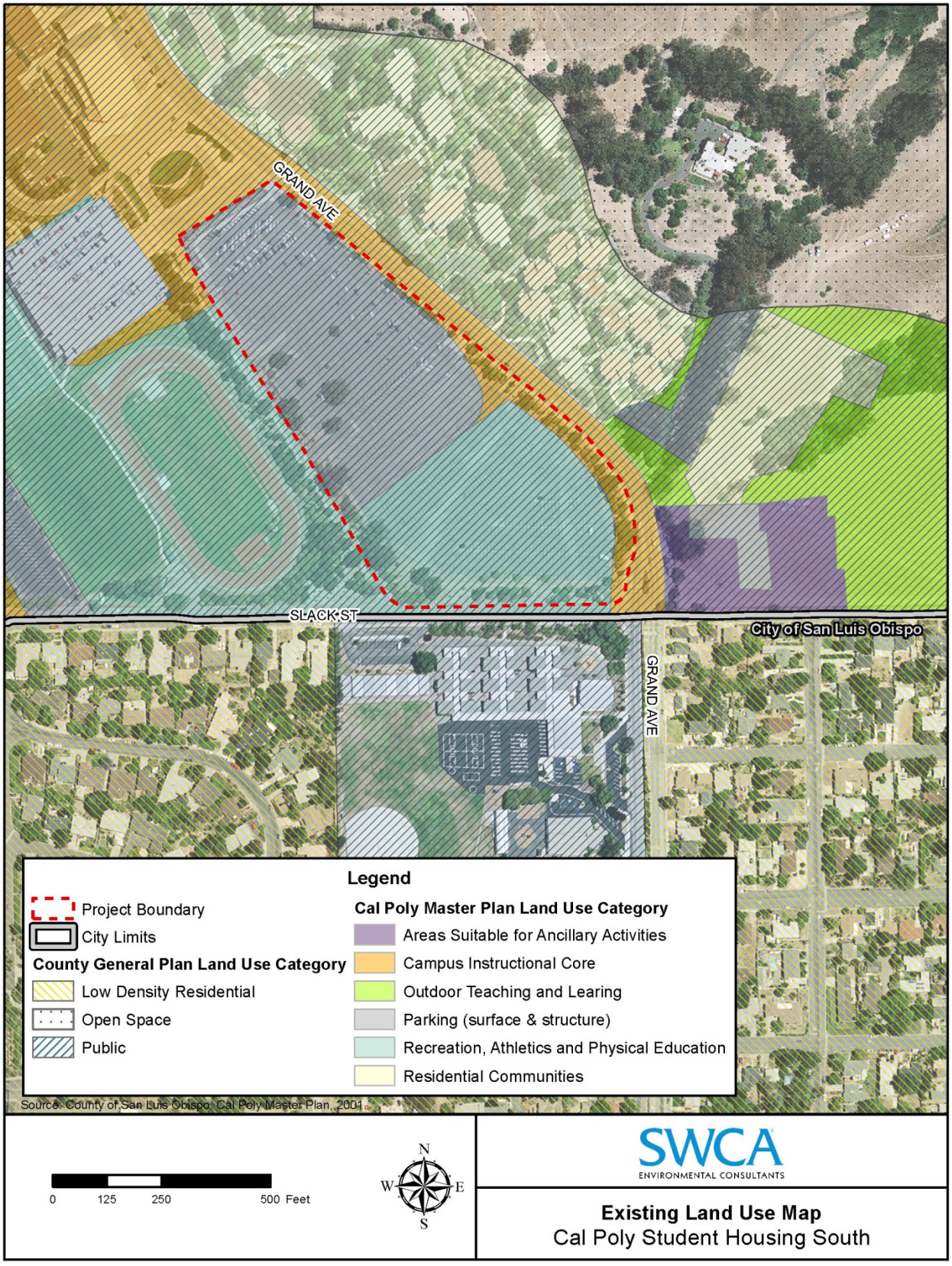
The project site is located at the southeastern edge of the campus instructional core northwest of the intersection of Grand Avenue and Slack Street (refer to Figure 2-2). The site is located at approximately 390 feet above mean sea level. The Grand Avenue and Slack Street entrance is the main entry point for the campus. The site is currently occupied by the G-1, G-4, and R-2 parking lots and encompasses approximately 12 acres. These parking lots provide approximately 1,324 surface parking spaces for staff, campus residents, and the general population.

The site is bordered by Slack Street and the former Pacheco Elementary School to the south. The site is elevated approximately 6-10 feet above Slack Street and is screened by this topographical separation and existing mature trees. The former school is owned by the San Luis Coastal Unified School District but is leased to several entities. As of July 2013, the buildings most proximate to the project site are occupied by several private schools. Other occupants of the facility include a public preschool and public children's therapeutic services.

Residential neighborhoods are located to the east and west of the former Pacheco Elementary School, south of the project site. Residences in these areas are predominantly single family, and include many units rented to students. Proximate campus development includes the PAC, Vista Grande Dining, and Sage Restaurant to the north; student residence halls, a parking kiosk, and vacant University-owned land to the east; and a parking structure, athletic fields, and athletic facilities to the west.

Figure 3-1 shows the land use designations of the proposed project site and vicinity, which include Recreation, Housing, Ancillary Facilities, and Parking on campus and Public Facilities and Low-Density Residential within the city.

Figure 3-1. Existing Land Uses



3.1.2 Climate

The climate of San Luis Obispo County can generally be described as semi-arid and warm, with dry summers followed by a cool, rainy period extending from November to March. Weather systems are dominated by the Pacific High pressure system that persists off the coast of California for much of the year, diverting storms northward. Denser morning fog followed by periods of afternoon sunshine is a pattern repeated daily during the summer months near the coast and within numerous small coastal valleys. Minimum temperatures in San Luis Obispo average about 42 degrees Fahrenheit (°F) in January; September is the warmest month with an average maximum temperature of about 79 °F. High and low temperatures are moderated by the proximity of the ocean, about 12 miles to the west of campus. The average annual rainfall in San Luis Obispo measures from 1950 to 1980 was 23 inches. The county is subject to cyclical droughts which may extend for several years, during which time rainfall totals are substantially reduced.

3.1.3 Campus Enrollment

Enrollment is difficult to predict; factors such as the economic downturn have played an important role in the annual enrollment scenario. The Master Plan projected enrollment at 20,912 by 2020; actual enrollment has varied, with a high of 19,777 in 2007 and a low of 18,262 in 2011. Table 3-1 outlines the total enrollment for the last 9 years on record.

The historic variability in enrollment must be taken into account when addressing various topics in the EIR. Where enrollment has a bearing on the analysis, such as water supply, the treatment of enrollment patterns in the analysis is detailed. In general, growth in enrollment is factored at approximately 1.5% per year, in accordance with projections in the Master Plan.

Table 3-1. Enrollment Patterns, 2005-2013

Year	Total Enrollment, Headcount	Percent Increase (Decrease)
2005-2006	18,475	
2006-2007	18,722	1.3
2007-2008	19,777	5.6
2008-2009	19,471	(1.5)
2009-2010	19,325	(0.7)
2010-2011	18,360	(4.9)
2011-2012	18,262	(0.5)
2012-2013	18,679	2.3
2013-2014	18,975	1.6
Increase/ Decrease over Period	**500**	**2.7**

Source: Cal Poly IP&A, Cal Poly Registration Monitor Fall 2011, and Fall 2010 Census Enrollment InfoBrief.
Available online at www.calpoly.edu/ipa

3.2 PLANS AND POLICIES

3.2.1 Overview

CEQA Guidelines §15125(d) states, “the EIR shall discuss any inconsistencies between the proposed project and applicable general plans and regional plans”. While CEQA requires a discussion of consistency with public plans, inconsistency does not necessarily lead to a significant impact. Inconsistency with adopted plans creates significant impacts under CEQA only when an adverse physical effect on the environment would result from the inconsistency. This section provides general information as to the plans and policies applicable to the proposed project. It is the responsibility of the Trustees, the lead CEQA decision makers, to make the final determination regarding consistency issues. The following plans and policies are applicable to the proposed project, or considered based on proximity to the city of San Luis Obispo, and are described in the following sections:

- 2001 Cal Poly Master Plan
- Cal Poly San Luis Obispo, Campus Administrative Policies
- Water Quality Control Plan for the Central Coast Region
- 2001 Clean Air Plan
- City of San Luis Obispo General Plan Land Use Element

Additional consistency analysis with local plans and policies is provided in the individual environmental analysis sections of the EIR. For example, the Air Quality sub-section includes an assessment of the project's consistency with the standards identified in the San Luis Obispo County Air Pollution Control District (SLOAPCD) CEQA Handbook. To the extent that the proposed project may be inconsistent with portions of these documents, remedies such as amendments to policy language or design alteration may be required. All adverse physical effects resulting from any inconsistency are discussed in the appropriate environmental analysis sections of the EIR (refer to Chapter 4).

3.2.2 State Plans and Policies

3.2.2.1 2001 Cal Poly Master Plan

The 2001 Cal Poly Master Plan is the primary document governing land use and capital improvements on campus through the year 2020. The Master Plan includes several elements which guide development on campus, including, but not limited to: Campus Instructional Core, Residential Communities, Circulation, and Parking. The Master Plan establishes land uses for the entire campus and outlines principles to guide future development. The Master Plan does not set specific standards for development; however, development pursuant to the Master Plan is conditioned by mitigation measures outlined in the Master Plan EIR, as applicable. More information about the Master Plan context is provided in Chapter 2.

3.2.2.2 Cal Poly San Luis Obispo, Campus Administrative Policies

The Campus Administrative Policies (CAP) are established to guide the various departments on campus as well as address University-wide issues. The full text of currently adopted policies is available at http://policy.calpoly.edu/index.html. Selected policies are addressed here; policies are also excerpted and discussed, where applicable, in specific topical sections (e.g., policies regarding noise and outdoor events are included in Section 4.4, Noise).

3.2.2.3 Water Quality Control Plan for the Central Coast Region

The Water Quality Control Plan for the Central Coast Region (Basin Plan) is the Regional Water Quality Control Board's (RWQCB's) master water quality control planning document. It designates beneficial uses and water quality objectives for waters of the State, including surface waters and groundwater. It also includes programs of implementation to achieve water quality objectives. Periodically, the RWQCB considers amendments to the Basin Plan. Each amendment is subject to an extensive public review process. At a public hearing, the RWQCB may act to adopt the amendment. Adopted amendments are subject to approval by the State Water Resources Control Board (SWRCB), the Office of Administrative Law, and, in most cases, the U.S. Environmental Protection Agency (EPA).

3.2.3 Local Plans and Policies

3.2.3.1 2001 Clean Air Plan

As part of the California Clean Air Act, the SLOAPCD is required to develop a plan to achieve and maintain the state ozone standard by the earliest practicable date. The Clean Air Plan outlines the SLOAPCD's strategies to reduce ozone precursor emissions from a wide variety of stationary and mobile sources. The 2001 Clean Air Plan was adopted by the SLOAPCD at their hearing on March 26, 2002.

Consistency with the Clean Air Plan is determined through discussion of a project's consistency with the land use and transportation control measures and strategies outlined in the Clean Air Plan.

3.2.3.2 City of San Luis Obispo Land Use Element

Although the University is not subject to the land use regulations or ordinances of the City of San Luis Obispo (City), a general discussion of consistency with policies pertaining to the University is provided. The main document referenced is the City's Land Use Element. It should be noted that the Land Use Element is undergoing revision; the most recently adopted document, adopted in 1994, is referenced here. Reference is also made to 1994 Circulation Element.

Table 3-2. Consistency with Plans and Policies

Goals, Policies, Plans, Programs and Standards	Proposed Action	Determination
Cal Poly Master Plan		
University Land Uses ▪ Balance – Use of land must be balanced to meet all uses, including support uses ▪ Environmental Suitability and Sustainability – Generally, the University land use pattern should focus on upgrading and reusing areas within the campus instructional core, as well as enhancing environmentally sensitive areas which may have become degraded. The principle also establishes resource and energy efficient planning and design as project cornerstones ▪ Compatibility – Establish and maintain buffers between the campus and neighborhoods. Mitigate impacts. ▪ Proximity – Connect uses – housing should be located near existing residence halls and supporting uses such as activity centers; keep necessary support uses within a 10-minute walking distance ▪ Compactness ▪ Greenspace ▪ Community – create a sense of community on campus	The project reallocates land which is underutilized as parking to respond to an ongoing need for on-campus housing. Since previously proposed housing sites have been deemed infeasible, and parking demand continues to decline, reallocation of the land is consistent with the principle of balance. The project is pursuing LEED certification, and other sustainability parameters, including LID techniques. The project provides infill within the campus core, redeveloping land. The EIR outlines several issues related to neighborhood proximity, including nuisance noise, air quality, and traffic. Mitigation is proposed to alleviate impacts, and project design includes trees and setbacks to provide a buffer to neighbors. The project provides housing proximate to other, existing freshman housing and existing support services such as dining halls. The project includes significant new greenspace in an area of an existing paved surface parking lot. The project furthers the goal of creating community on campus.	Potentially consistent
Residential Communities. ▪ Student Learning – Create residential environments which support learning ▪ Housing types – Provide more diversity addressing needs of various groups ▪ Support Services – include space in communities for support services ▪ Accessibility – Electronic and Face to Face, as well as ADA ▪ Affordable Quality ▪ Feasibility – Because housing is not funded by the State, any housing provided by the University must be self-supporting ▪ External Community Impact – Housing on campus should mitigate immediate impacts on the local housing market	The project includes student learning components and addresses needs of freshman with modern amenities. The project includes support services, including small-scale retail and recreational facilities, and is Americans with Disabilities Act (ADA) compatible. The project is being designed with specific goals for affordability for the University while meeting competitive price points in the market. The EIR outlines several issues related to neighborhood proximity, including nuisance noise, air quality, and traffic. Mitigation is proposed to alleviate impacts. The project will house existing enrollment and will, therefore, alleviate pressure on the competitive local housing market.	Potentially consistent

Table 3-2. Consistency with Plans and Policies

Goals, Policies, Plans, Programs and Standards	Proposed Action	Determination
Parking ▪ Reduction – Cal Poly should use policies and incentives to reduce parking demand ▪ Location and Access – Concentrate parking near campus entrances ▪ Alternatives – Encourage finding other ways to campus ▪ Parking Management – Explore limiting access to parking and alternative pricing strategies ▪ Neighborhoods – Cal Poly should be sensitive to the impact of campus circulation and parking policies on adjacent neighborhoods ▪ Visibility and Safety – Design of parking facilities should reduce visual obtrusiveness, but address safety	Elements of the parking plan were intended to address, what was at the time, a projected future parking deficit. As noted in Chapter 2, projected conditions have not materialized. This is, in part, due to success in implementing the Master Plan principle of "Culture," specifically, changing the culture of the University population regarding the vehicle. The project helps reduce total parking on campus. The EIR identifies neighborhood concerns related to circulation and parking mitigation is proposed to alleviate impacts. The site plan limits visual access to the parking structure by locating the structure in the northern portion of the site, partially below grade, and wrapping the structure with retail and similar uses. Safety is addressed through mitigation incorporated from the Master Plan EIR.	Potentially consistent
Campus Administrative Policies		
151.2[5] Sustainability: Practice Institutional Ecology Use a wide array of sustainable practices, related to water conservation, energy conservation, alternative transportation, and new building construction	The University is pursuing LEED certification for the proposed project, and is currently evaluating available strategies for energy and water use, as well as construction techniques.	Potentially consistent
362.1 Environmental Compliance Program The University shall comply with applicable federal, state, and local laws and regulations related to environmental protection and pollution control.	The project is required to comply with these policies (362.1 and 362.1.1-362.1.3); the project does not include components which will cause potential conflict with these policies.	Potentially consistent
362.1.1 Hazardous Waste Control All hazardous waste materials shall be handled, stored, managed, and disposed in compliance with applicable federal and state laws and regulations.		
362.1.2 Water Pollution Control No hazardous waste or other materials prohibited by the campus Non-Industrial Waste Discharge Permit shall be placed in a campus sanitary sewer. No waste materials, other than storm runoff, shall be placed in a campus storm sewer or creek.		

Table 3-2. Consistency with Plans and Policies

Goals, Policies, Plans, Programs and Standards	Proposed Action	Determination
362.1.3 Air Pollution Control All stationary sources of air pollution (engines, boilers, spray booths, etc.) shall have a permit or exemption issued by the San Luis Obispo County Air Pollution Control District prior to installation and operation. The University shall implement transportation control measures consistent with its Trip Reduction Plan in response to the San Luis Obispo County Air Pollution Control Board's Clean Air Plan.		
City of San Luis Obispo Land Use Element		
1.11.1 Overall Policy Communication and cooperation between the City and nearby government institutions is important and must be maintained, because changes in the numbers of workers, students, and inmates of the three major public institutions near the City directly influence the City's economic base, land use, circulation, and ability to manage growth. The City should continue to work with Cuesta College and Cal Poly to assure that enrollment growth addressed in their approved master plans will not result in any significant adverse impacts on the City.	The project will not change enrollment or staffing beyond levels anticipated in the 2001 Master Plan.	Potentially consistent
1.11.2 Cal Poly The City favors Cal Poly's approved master plan enrollment targets. These targets should not be changed in a way that would exceed campus and community resources. The City favors additional on-campus housing, enhanced transit service, and other measures to minimize impacts of campus commuting and enrollment.	The project will not change enrollment or staffing beyond levels anticipated in the 2001 Master Plan.	Potentially consistent
2.7.1 Cal Poly California Polytechnic State University campus should provide housing opportunities for both faculty and students. Existing on-campus housing should be retained. On-campus housing should increase at least as fast as enrollment, so the proportion of students living on campus can remain the same as in 1992.	The proposed housing is consistent with Master Plan goals for increased on-campus housing. On campus housing growth has exceeded enrollment growth, substantially increasing the proportion of students living on campus.	Potentially consistent
2.7.3 Amenities Multifamily housing likely to be occupied by students should provide the amenities which students seek in single-family areas, to provide an attractive alternative.	The proposed project includes small-scale retail, such as a coffee shop, indoor and outdoor gathering areas, and small recreational facilities including sand volleyball and basketball courts.	Potentially consistent

Table 3-2. Consistency with Plans and Policies

Goals, Policies, Plans, Programs and Standards	Proposed Action	Determination
2.7.4 Location Housing likely to attract faculty or students should be encouraged to locate close to Cal Poly, to reduce commute travel.	The proposed project provides on-campus housing and reduces commute travel.	Potentially consistent
City of San Luis Obispo Circulation Element		
4.1.3 Campus Bicycle Plans Cal Poly and Cuesta College shall be requested to adopt a bike plan, coordinated with other agency plans, that shows the location of all on-campus bike lanes and bike storage areas and includes programs that encourage the use of bicycles.	Bicycle circulation is a component of the 2001 Master Plan. The preliminary site plan shows bike storage and circulation. The project encourages the use of bicycles by removing vehicle parking, providing on campus housing, and providing storage, internal circulation, and access to existing bike lanes.	Potentially consistent
4.1.4 Campus Master Plans In cooperation with the City, Cal Poly and Cuesta College shall be requested to revise their campus master plans to de-emphasize the use of automobiles and promote the use of alternative forms of transportation.	Multi-modal transportation is a component of the 2001 Master Plan. Components of the plan include the consolidation and reduction of parking, provision of additional bicycle and pedestrian facilities, and the development of on-campus housing. The proposed project conforms to these principles.	Potentially consistent
San Luis Obispo County Air Pollution Control District Clean Air Plan		
T-1B Campus Trip Reduction Program This program is designed to reduce student commute trips to Cal Poly and Cuesta Community College. Major program components for each campus include: on-site Transportation Coordinators and transportation information centers, annual surveys of student commute behavior, specific AVR goals for each campus, and implementation of program incentives and disincentives designed to reduce private vehicle trips to campus. Examples of incentives include subsidized transit passes, preferential parking for carpoolers, providing storage facilities to walkers and cyclists, and preferential registration for those who do not drive alone. Typical disincentives are parking pricing and access.	The University currently implements the specified components of the trip reduction plan. The project does not affect the larger trip reduction plan. The project disincentivizes vehicle use through increasing campus housing, reducing vehicle parking, and increasing bicycle and pedestrian facilities on campus.	Potentially consistent

Table 3-2. Consistency with Plans and Policies

Goals, Policies, Plans, Programs and Standards	Proposed Action	Determination
T-1C Voluntary Commute Options Program This measure is designed to reduce the number of commute and other trips made with single occupant vehicles (SOVs) through an outreach effort to employers to encourage voluntary participation in a worksite trip reduction program. Implementation of this measure was begun in 1997, with the development of (1) a marketing plan to identify appropriate strategies for the outreach effort and (2) mechanisms for defining and targeting employers with the highest potential for successful participation. Called the Transportation Choices Program (TCP), success is dependent in part on Strategic Partners like Regional Rideshare and Ride-On Transportation jointly promoting transportation options to targeted employers. Alliances with essential and supplemental Service Providers have also been initiated to enhance the viability and convenience of alternative commuting. The primary goal of the measure is to achieve an average AVR of 1.35 at 20% of facilities in the county with 50 or more employees.	See previous; the University participates in trip reduction efforts.	Potentially consistent
T-2A Local Transit System Improvements The focus of this measure is on improving local transit service and infrastructure to increase ridership by enhancing the convenience and overall viability of the system. Key elements of the measure include ongoing improvements to bus boarding areas, development of multi-modal centers, service expansion, and replacement of older diesel transit buses with new diesel-powered vehicles meeting the California Air Resources Board's (CARB's) October 31, 2002 emission certification standards or compressed natural gas vehicles meeting one of CARB's optional emission credit standards.	The project will not affect the location of boarding area or otherwise result in changes in local transit service. The project may result in slight decreases in ridership resulting from increased on-campus housing options.	Potentially consistent
T-2B Regional Public Transit Improvements San Luis Obispo Regional Transit Authority (operates the regional fixed route system, Central Coast Area Transit (CCAT). The focus of this measure is to improve regional transit service and infrastructure with the goal of increasing ridership rates in excess of countywide population growth rates.	The project will not measurably affect regional transit service or ridership.	Potentially consistent
T-3 Bicycling and Bikeway Enhancements The goal of this measure is to achieve a county-wide average bicycle mode share of 5% by 2005.	The project promotes bicycle use through provision of bike storage, inclusion of internal bicycle circulation and connections to existing bicycle lanes, and the provision of on-campus housing.	Potentially consistent

Table 3-2. Consistency with Plans and Policies

Goals, Policies, Plans, Programs and Standards	Proposed Action	Determination
T-6 Traffic Flow Improvements This control measure focuses on traffic flow improvements and "traffic-calming" to improve the flow of all transportation modes. Traffic-calming refers to a full range of methods designed to improve the flow of non-motorized transportation by slowing down the speed of motorized traffic. Traffic-calming is generally used in residential areas on non-arterial local streets and roads.	The project does not include improvements to existing circulation systems. The project would reduce traffic along Grand Avenue. The small amount of trips redistributed from parking lot closure would generally be routed to arterials.	Potentially consistent
L-1 Planning Compact Communities ▪ Cities and unincorporated communities should be developed at higher densities that reduce trips and travel distances and encourage the use of alternative forms of transportation. ▪ Urban growth should occur within the urban reserve lines of cities and unincorporated communities. Rural areas of the county should be maintained as open space, agricultural lands and very low density residential development (20 acre or larger parcel size). ▪ Local planning agencies should encourage transit use by planning neighborhoods and commercial centers at densities to allow for convenient access to and use of local and regional transit systems.	The project consists of infill residential housing within the developed campus instructional core. Provision of on-campus housing reduces vehicle trips and will encourage use of non-motorized transportation. Transit facilities and bicycle lanes are already present in the vicinity of the project site.	Potentially consistent
L-2 Providing for Mixed Land Use The mixing of compatible commercial and residential land uses should be encouraged when it will reduce dependence on the automobile, or it improves the balance between jobs and housing.	The project includes small retail establishments and recreational facilities to encourage residents to remain on site. Other services such as food and groceries exist on campus and cater to residents. Residents of the complex will be on meal plans, communal dining facilities exist in the area.	Potentially consistent
L-4 Circulation Management Jurisdictions should adopt the concept of improved accessibility as a planning goal and as a means to coordinate land use and transportation planning efforts. ▪ Agencies should focus transportation funds on facilities and promotional programs that support transit, ridesharing, bicycling, and walking before focusing funds on capacity expansion for congestion relief. ▪ Local planning agencies should encourage walking by planning for existing and new residential and commercial areas to include a safe and interconnected street system with adequate sidewalks and/or pedestrian trails. ▪ Local planning agencies should develop pedestrian- and bicycle-friendly	The project consists of on-campus housing and closure of the existing surface parking lot. A small portion of the existing parking will be replaced in a parking garage. The project reduces commuter student trips, and includes bicycle and pedestrian infrastructure.	Potentially consistent

Table 3-2. Consistency with Plans and Policies

Goals, Policies, Plans, Programs and Standards	Proposed Action	Determination
design standards that apply to all residential and commercial projects. ▪ Local planning agencies should endorse the concept of managing the supply of automobile parking as a means to support and promote the use of alternative transportation modes. ▪ Jurisdictions should support actions to reduce single occupant vehicle trips by adopting programs which encourage or require new commercial and industrial development projects to provide facilities and amenities which reduce reliance on private vehicle use and support the use of alternative transportation. ▪ Local jurisdictions, the APCD and the Council of Governments should coordinate actions and cooperate in pursuing the implementation of the land use and circulation management programs proposed in this document. The Clean Air Plan and local General Plans should be used as a means to achieve coordinated implementation of these programs.		
L-5 Communication, Coordination and Monitoring ▪ Local jurisdictions, the APCD and the Council of Governments should coordinate actions and cooperate in pursuing the implementation of the land use and circulation management programs proposed in this document. The Clean Air Plan and local General Plans should be used as a means to achieve coordinated implementation of these programs.	The SLOAPCD was consulted early in the planning process for the proposed project. Comments submitted by the SLOAPCD have been incorporated into the Air Quality section of this EIR.	Potentially consistent
Regional Water Quality Control Board Central Coast Region Basin Plan		
III.A. Regional Water Quality Control Board Management Principles, General: 1. Land use practices should assure protection of beneficial water uses and aquatic environmental values. 2. There shall be no waste discharged into areas which possess unique or uncommon cultural, scenic, aesthetic, historical or scientific values. Such areas will be defined by the Regional Board. 3. Property owners are considered ultimately responsible for all activities and practices that could result in adverse effects on water quality from waste discharges and surface runoff.	The project would not result in the discharge of waste into areas that possess unique or uncommon cultural, scenic, historical, or scientific values, as defined by the RWQCB. Project design and recommended mitigation include measures to protect water quality.	Potentially Consistent

Table 3-2. Consistency with Plans and Policies

Goals, Policies, Plans, Programs and Standards	Proposed Action	Determination
III.C. Discharge to Surface Waters: 1. All discharges to the aquatic environment shall be considered temporary unless it is demonstrated that no undesirable change will occur in the natural receiving water quality. 2. The quality of all surface waters of the basin shall be such as to permit unrestricted recreational use.	The proposed stormwater system would continue to discharge stormwater runoff into established collection systems. The project conforms to LID standards to minimize runoff.	Potentially Consistent
IV.A. Discharge Prohibitions, All Waters: Waste discharges shall not contain materials in concentrations which are hazardous to human, plant, animal, or aquatic life. The discharge of oil or any residual products of petroleum to the waters of the State, except in accordance with waste discharge requirements or other provisions of Division 7 of the California Water Code, is prohibited. Discharge of elevated temperature wastes into COLD intrastate waters is prohibited where it may cause the natural temperature of the receiving water to exceed limits specified in Chapter Three [of the Basin Plan], Water Quality Objectives.	The project would not result in the discharge of hazardous materials, oil, or petroleum products into surface waters, because project design and construction-related mitigation to prevent, contain, and control accidental spills or leaks would be implemented. The temperature of stormwater runoff would not be elevated by the project.	Potentially Consistent
V.G. Erosion and Sedimentation. 1. Erosion from nonpoint pollution sources shall be minimized through implementation of Best Management Practices (identified under "Management Principles" and described under "Land Disturbance Activities" in Chapter Four's "Nonpoint Source Measures" section. 2. All necessary control measures for minimizing erosion and sedimentation, whether structural or vegetal, shall be properly established prior to November 15 each year. 3. All structural and vegetal measures taken to control erosion and sedimentation shall be properly maintained. 4. A filter strip of appropriate width, and consisting of undisturbed soil and riparian vegetation or its equivalent, shall be maintained, wherever possible, between significant land disturbance activities and watercourses, lakes, bays, estuaries, marshes, and other water bodies. For construction activities, minimum width of the filter strip shall be thirty feet, wherever possible as measured along the ground surface to the highest anticipated water line. 5. Design and maintenance of erosion and sediment control structures, (e.g., debris and settling basins, drainage ditches, culverts, etc.) shall comply with accepted engineering practices. 6. Cover crops shall be established by seeding and/or mulching, or other	The proposed project design and recommended mitigation measures including soil stabilization, protection of loose soil during construction, and drainage control / LID measures are consistent with the Basin Plan.	Potentially Consistent

Table 3-2. Consistency with Plans and Policies

Goals, Policies, Plans, Programs and Standards	Proposed Action	Determination
equally effective measures, for all disturbed areas not otherwise protected from excessive erosion. 7. Land shall be developed in increments of workable size that can be completed during a single construction season. Graded slope length shall not be excessive and erosion and sediment control measures shall be coordinated with the sequence of grading, development, and construction operations. 8. Use of soil sterilants is discouraged and should be minimized.		

3.3 CUMULATIVE ANALYSIS

3.3.1 CEQA Requirements

Section 15355 of the CEQA Guidelines defines a "cumulative impact" as two or more individual effects that, when considered together, are considerable or will compound other environmental impacts. Cumulative impacts are changes in the environment that result from the incremental impact of development of the proposed project and all other nearby "related" projects. For example, the traffic impacts of two projects in close proximity may be insignificant when analyzed separately, but could have a significant impact when the projects are analyzed together.

CEQA Guidelines require that cumulative impacts be discussed when they are significant. The discussion of cumulative impacts shall reflect the severity of the impacts and their likelihood of occurrence, but the discussion need not provide as much detail as is provided for the effects attributable to the project alone. The discussion should be guided by the standards of practicality and reasonableness. The CEQA Guidelines state the following:

> *"Cumulative impacts include either option:*
>
> 1. *A list of past, present, and probable future projects producing related or cumulative impacts, including those projects outside the control of the agency, or*
>
> 2. *A summary of projections contained in an adopted general plan or related planning document or in a prior environmental document which has been adopted or certified, which described or evaluated regional or area wide conditions contributing to the cumulative impact. Any such planning document shall be referenced and made available to the public at a location specified by the Lead Agency (§15130 (b)(1)).*"

3.3.2 Cumulative Development Scenario

For the purposes of this EIR, a qualitative discussion of campus buildout and its relationship to the impacts discussed in Chapter 4 is more relevant, as the list of past, present, and reasonably anticipated future projects is limited. Growth is based on past patterns and rates of growth, and includes the Academic Center and Library Expansion, the only capacity improvement expected under the current Master Plan. Enrollment growth is assumed at 1.5% per year. The cumulative development scenario is further defined by topic in Chapter 4. For example, the traffic section uses published model inputs and studies to define cumulative conditions. Potential cumulative impacts resulting from the cumulative development scenario are addressed in the individual issue area discussions in Chapter 4.

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CHAPTER 4
ENVIRONMENTAL IMPACT ANALYSIS

The Environmental Impact Analysis chapter of this EIR has been divided into sub sections, as follows:

- **Existing Conditions**: The description of the physical environmental conditions in the vicinity of the project, as they exist at the time the NOP is published (baseline physical conditions).

- **Regulatory Setting**: The regulations in force at the time the NOP is published. These are the applicable regulations governing each environmental topic, such as the Clean Air Act and its requirements for maintaining air quality. This is not an exhaustive analysis of the regulations, but rather information to assist the reader in understanding the potential impacts of the project from a regulatory perspective.

- **Thresholds of Significance**: The thresholds used to evaluate each environmental topic are usually based on Appendix G of the CEQA Guidelines, or are standard procedures related to existing regulations or are standards in the industry.

- **Impact Assessment and Methodology**: Methodology used to determine the impacts associated with the project, such as measurements or field investigative processes.

- **Project-Specific Impacts and Mitigation Measures**: These include the significant environmental effects of the proposed project, as further defined below. The impacts are identified and then are followed by the mitigation measures that can minimize significant impacts; mitigation measures must be enforceable and feasible. Where more than one mitigation measure could be used to reduce a significant effect, each should be discussed and rationale given for determining the preferable mitigation measure. In addition, there must be an essential nexus between the mitigation measure and a legitimate governmental interest, and the mitigation measure also must be "roughly proportional" to the impacts of the project.

- **Residual Impacts**: The statement of the level of impact, significant or insignificant, that is residual once mitigation is applied.

- **Cumulative Impacts**: The cumulative effects of the project when the project's effect is cumulatively considerable.

- **Secondary Impacts**: If a mitigation measures would cause one or more significant effects in addition to those that would be caused by the project as proposed, the effects of the mitigation measure must be discussed but in less detail than the significant effects of the project as proposed. (*Stevens v. City of Glendale* (1981) 125 Cal.App.3d 986).

All residual impacts in the EIR have been classified according to the following criteria (note: CEQA does not recognize a beneficial effect as an impact):

- **Class I – Significant, unavoidable, adverse impacts:** Significant impacts that cannot be fully and effectively mitigated. No measures could be taken to avoid or reduce these adverse effects to insignificant or negligible levels.

- **Class II – Significant, but mitigable impacts:** These impacts are potentially similar in significance to those of Class I, but can be reduced or avoided by the implementation of mitigation measures.

- **Class III – Less than significant impacts:** Mitigation measures may still be required for these impacts as long as there is rough proportionality between the environmental impacts caused by the project and the mitigation measures imposed on the project.

The term “significance” is used throughout the EIR to characterize the magnitude of the projected impact. For the purpose of this EIR, a significant impact is a substantial or potentially substantial change to resources in the proposed project area or the area adjacent to the proposed project. In the discussions of each issue area, thresholds are identified that are used to distinguish between significant and insignificant impacts. To the extent feasible, distinctions are also made between local and regional significance and short-term versus long-term duration. Where possible, measures have been identified to reduce project impacts to less than significant levels. CEQA requires that public agencies should not approve projects as proposed if there are feasible mitigation measures available that would substantially lessen the environmental effects of such projects (CEQA Statute §21002). Included with each mitigation measure are the plan requirements needed to ensure that the mitigation is included in the plans and construction of the project and the required timing of the action (e.g., prior to development of final construction plans, prior to commencement of construction, prior to operation, etc.).

4.1 AESTHETIC RESOURCES

4.1.1 Existing Conditions

4.1.1.1 Project Setting

The Campus

The project site is located along the southern perimeter of the Cal Poly campus, near the Grand Avenue entrance to the University. The campus is situated immediately adjacent to the northern limits of the city of San Luis Obispo at the foothills of the Santa Lucia Mountains. The overall topography of the campus generally trends upward in elevation from west to east. As seen from many on-campus locations, this elevation change allows for increased views of the surrounding community and landscape. From the more elevated portions of campus, including the project site, distant views include Cerro San Luis and Bishop Peak (part of the Morros chain of mountains) to the west and the Santa Lucia Mountain foothills to the east.

The campus instructional core is relatively compact, and the existing buildings include a variety of architectural styles and forms (refer to Photos 4.1-1 through 4.1-4). The aesthetic quality of the campus as seen today is the inherent result of an evolution of architecture styles and planning trends over several decades. Older buildings on campus show a use of brick and concrete particularly popular during the 1960's and 70's, and the more recent construction introduces more metal exterior finishes and components. Much of the newer architecture tends to be spare on ornamentation, and appears to intentionally represent its functional, institutional use. Large, multi-story structures are common within the campus core, and in the general vicinity of the project site, including the PAC immediately north of the site, and the Recreation Center buildings to the northwest. Two- and three-story student housing complexes are located immediately across Grand Avenue from the project site. Larger-scale on-campus housing is found northeast of the campus core in and near Poly Canyon.

Photo 4.1-1.
View of existing buildings near the campus core.

Photo 4.1-2.
View of existing campus buildings along Perimeter Drive in the general vicinity of the project site.

Photo 4.1-3.
View of the PAC on Grand Avenue adjacent to the project site.

Photo 4.1-4.
View of existing student housing along Grand Avenue directly east of the project site.

The Project Site

The proposed site currently serves as a surface parking lot, located northwest of the intersection of Grand Avenue and Slack Street. Existing development on-site consists of earthen embankments along the eastern and southern edges, a landscaped border with a mix of mature trees, light standards, and striped pavement for parking (refer to Photos 4.1-5 through 4.1-10). The parking lot is regularly occupied with vehicles, including tour buses. Existing views of the site itself are dominated by parked cars, partially screened by landscape trees. Grand Avenue, where it fronts the project site, provides visual access to the Morros to the west and the Santa Lucia Foothills to the east.

Photo 4.1-5.
View of the site from the intersection of Grand Avenue and Slack Street.

Photo 4.1-6.
View of the site north from Slack Street.

Photo 4.1-7.
View across the southern portion of the site west from Grand Avenue.

Photo 4.1-8.
View of the site to the south from the entrance off Grand Avenue.

Photo 4.1-9.
View across the mid-portion of the site to the west.

Photo 4.1-10.
View from on-site, southern end north to campus interior.

Note the PAC visible in the background, roughly center of the photograph.

Surrounding Neighborhoods

The University is generally surrounded by residential neighborhoods to the south, southeast, and west, and by open space and rural lands to the north and east (refer to Photos 4.1-11 through 4.1-16). Residential neighborhoods generally consist of multi-unit apartments to the west, and single-family detached homes are predominant to the south and southeast, although a few apartment buildings also line Grand Avenue south of campus. A mix of student and non-student housing comprises the surrounding residential areas. These neighborhoods in the campus vicinity were mostly developed during the 1940s through the 1960s. One- and two-story houses are seen on modestly sized lots typical of residential subdivisions of the era. Although many of the houses are typical of mid-century suburban residences, the architectural styles and forms vary. Accordingly, the moderately high aesthetic cohesion of these neighborhoods is mostly the result of the mature, well-established landscaping intermingled among the residences and the streets rather than the residential structures themselves. The section of Grand Avenue approaching campus is designated as a Scenic Roadway in the City's Circulation Element. The designation is a function of the "boulevard" aesthetic along the roadway and the prominent campus gateway. This section of Grand Avenue also serves the residential neighborhoods to the east and west. These adjacent neighborhoods have no historic, scenic, or cultural designation per City policy or ordinance.

Photo 4.1-11.
View from the project site looking southwest to the adjacent neighborhood.

Photo 4.1-12.
View from the corner of Grand Avenue and Slack Street looking toward the residential neighborhood southeast of the project site.

Photo 4.1-13.
View of the Grand Avenue Learning Center south of the project site on Slack Street.

Photo 4.1-14.
View of the residential neighborhood immediately south of the project site along Slack Street.

Photo 4.1-15.
View of the general neighborhood character south of the project site.

Photo 4.1-16.
View of the general neighborhood character west of the project site.

4.1.2 Regulatory Setting

The project is located within the jurisdiction of the University. The regulatory setting is defined in applicable planning policies and in the CEQA Guidelines. The regulatory setting pertaining to visual resources includes the University's implementation of CEQA, the Cal Poly Master Plan, the Campus Design Guidelines, and other supporting documentation. The impact analysis considers the project's consistency with these documents.

4.1.2.1 University Planning Documents

The following aesthetic policies and goals relating to the project site are included in University planning documents.

Campus Land Use and Design Guidelines 2010

The 2010 Campus Land Use and Design Guidelines (Guidelines) provide supplemental land use and site design recommendations to the 2001 Master Plan. The Guidelines were developed using both direction given in the Master Plan and subsequent studies throughout the campus. The Guidelines are intended as an advisory document and have not been formally adopted.

Building height and size. Buildings should be at least three stories tall.

Building design, form, and orientations. New buildings should orient toward Grand Avenue, improving the aesthetics of this campus entrance. Any buildings taller than 35 feet should include upper story setbacks or façade articulation to reduce any sense of a continuous wall. Cal Poly and the CSU discourage the use of pre-engineered buildings and as such they are not allowed within the campus core.

Parking. Parking should generally be behind and/or under the residences.

Open space, landscaping, and pedestrian features. The setback for new buildings on Slack Street should be at least 25 feet. The Grand Avenue setback should be 30 feet from the curb.

2001 Cal Poly Master Plan

The following Master Plan principles apply in consideration of aesthetic resources and impacts.

Land Use

3) **Compatibility:** be considerate of impacts on neighborhoods near campus.

6) **Green space:** protect environmentally sensitive areas; design green space into each land use; use green space to create a sense of place, visual continuity, and visual and physical links throughout the campus.

Natural Environment

8) **Stewardship:** develop and use management practices that protect and enhance natural resources; permanently protect especially sensitive areas; be an example to the greater community.

14) **Aesthetics:** protect scenic resources and take advantage of them in new designs.

Circulation

70) **Beautification:** gateways and corridors should be attractive.

Parking

81) **Neighborhoods:** be sensitive to impacts on adjacent neighborhoods.

82) **Visibility and safety:** reduce visual obtrusiveness of parking facilities, but be sensitive to issues of safety, burglary and vandalism.

4.1.2.2 City of San Luis Obispo Planning Documents

The City's Circulation and Conservation Open Space Elements designate the section of Grand Avenue where it approaches the campus entrance as "moderate scenic value." The City's Scenic Roadways Map shows the scenic designation extending along Grand Avenue from Hays Street to Deer Road, approximately 150 feet north of Slack Street.

The project is not subject to local planning policy; however, the following planning documents relate to the Scenic Roadway designation and serve as an indicator of sensitivity regarding visual quality near and within this section of the community and campus.

San Luis Obispo General Plan Circulation Element

The Circulation Element of the City's General Plan includes goals and policies for streets, bicycle and pedestrian facilities, and transit.

15.0.3 Development along Scenic Routes. Development along scenic roadways should not block views or detract from the quality of views.

A. Projects in the viewshed of a scenic roadway should be considered as "sensitive" and require architectural review.

B. Development projects should not wall off scenic roadways and block views.

C. As part of the city's environmental review process, blocking of views along scenic roadways should be considered a significant environmental impact.

D. Signs along scenic roadways should not clutter vistas or views.

E. Streetlights should be low scale and focus light at intersections where it is most needed. Tall light standards should be avoided. Street lighting should be integrated with other street furniture at locations where views are least disturbed. However, safety priorities should remain superior to scenic concerns.

San Luis Obispo General Plan Conservation and Open Space Element

The Conservation and Open Space Element of the City's General Plan includes policies and programs to address treatment and management of natural resources and open spaces in and around the City.

9.2.1 Views to and from public places, including scenic roadways. The City will preserve and improve views of important scenic resources from public places, and

encourage other agencies with jurisdiction to do so. Public places include parks, plazas, the grounds of civic buildings, streets and roads, and publicly accessible open space.

A. Development projects shall not wall off scenic roadways and block views.

C. Where important vistas of distant landscape features occur along streets, street trees shall be clustered to facilitate viewing of the distant features.

D. Development projects, including signs, in the viewshed of a scenic roadway shall be considered "sensitive" and require architectural review.

4.1.3 Thresholds of Significance

The determinations of significance of project impacts are based on applicable policies, regulations, goals, and guidelines defined by CEQA and the CSU. In addition to comparing the project to relevant policies and standards, the aesthetic resources assessment identified which specific criteria contribute most to the existing quality of each view and if change would occur to that criteria as a result of the project. If a change in visual criteria was identified, this change was analyzed for its potential effect on the existing scenic character. This analysis was combined with the potential number of viewers, their sensitivities, and viewing duration in order to determine the overall level of impacts. Specifically, the project would be considered to have a significant effect on the environment if the effects exceed the significance criteria described below.

4.1.3.1 CEQA Guidelines

The significance of potential aesthetic resources impacts are based on thresholds identified within Appendix G of the CEQA Guidelines. Aesthetic impacts would be considered significant if the proposed project would:

1. Have a substantial adverse effect on a scenic vista

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

3. Substantially degrades the existing visual character or quality of the site and its surroundings

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

<u>Have a substantial adverse effect on a scenic vista.</u>

If the proposed project could significantly degrade the scenic landscape as viewed from public roads, or in particular designated Scenic Roadways, or from other public areas, this would be considered a potentially significant impact on the scenic vista. The scenic landscape in this case includes views of the Morros and the Santa Lucia foothills as backdrops to the University and community setting. The degree of potential impact on scenic vistas would vary with factors such as viewing distance, duration, viewer sensitivity and the visual context of the surrounding area.

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

The project would result in a significant impact if it had a substantial adverse effect on a scenic resource as seen from an Officially Designated State Scenic Highway. A scenic resource would be a specific feature or element with a high degree of memorability or landmark characteristics that contributed to the high visual quality of the corridor. This CEQA threshold does not apply because the project site is not within the view corridor of any Officially Designated State Scenic Highway.

Substantially degrades the existing visual character or quality of the site and its surroundings.

Project related actions would be considered to have a significant impact on the visual character of the setting if they altered the area in a way that substantially changed, detracted from, or degraded the visual quality as seen from moderately sensitive public viewpoints in the area and was inconsistent with defined policies regarding visual character. The degree to which proposed change reflects documented community values and meets users' and other viewers' aesthetic expectations is the basis for determining levels of significance. Visual contrast may be used as a measure of the potential impact that the project may have on the visual character of the site.

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

The project would result in a significant impact if it subjected public viewing locations or adjacent residents to a substantial amount of point-source lighting visibility at night, or if the collective lumination of the project resulted in a noticeable spillover effect into the nighttime sky, increasing the ambient light over the region. The degree of impact caused by night lighting would consider the type of lighting proposed by the project action along with the lighting reasonably expected to be generated by the future development. The placement of lighting, source of illumination, and fixture types combined with viewer locations, adjacent reflective elements, and atmospheric conditions can affect the degree of change to nighttime views. If the project results in direct visibility of a substantial number of lighting sources, or allows a substantial amount of light to project toward the sky, significant impacts on nighttime views and aesthetic character would result.

4.1.4 Impact Assessment and Methodology

4.1.4.1 Analysis Methodology

The analysis considers the existing development as part of the visual baseline. This includes the neighborhoods immediately surrounding the project, as well as the developed campus, including the existing parking lot on site. The visual quality of the community has as much to do with the built environment as the natural setting. Patterns of development, architecture, scale, massing, and vegetation define how the campus and community are perceived by residents and visitors alike.

The findings of this study are based on multiple field visits conducted over several months, including review of the entire site as well as the surrounding area. Resource inventories were conducted both on foot and from moving vehicles, during the day and nighttime. Existing visual resources and site conditions were photographed and recorded. Assessment of project elements was based on plans and descriptions provided by the University. Applicable planning

documents and previous studies relevant to the project and surrounding area were referred to for gaining an understanding of aesthetic values.

Locations of potentially critical project features such as the building structures and major landscape elements were identified on site. These measurements, along with the known heights of existing built and landscape elements were used as visual scale references for confirming project location and massing, and for determining overall project visibility.

The project site was viewed from all potential public viewer group locations within the campus and in the surrounding neighborhoods, including but not limited to Slack Street, Longview Lane, Albert Drive, Chaplin Lane, McCollum Street, Hathaway Avenue, and Grand Avenue. Overall project visibility was established and viewpoints were analyzed for dominance of the project site within the view, quality of the view, duration of views and viewer exposure, and expected sensitivity of the viewer group. Two representative photo-simulations from Grand Avenue and from Slack Street were prepared which would best illustrate the visual changes proposed by the project (refer to 4.1.5, Project-specific Impacts and Mitigation Measures, for simulations). The simulations, along with the view analysis field work were used to quantify potential project visibility and to assess related impacts. The project site was then field-reviewed to assist in determining possible mitigation measures.

The visual character analysis is based in part on a process developed by the Federal Highway Administration (FHWA) in conjunction with the American Society of Landscape Architects. Accordingly, the analysis defines the visual environment of the project area, quantifies the visual resources, and considers expected viewer response to those resources. The analysis identifies the resource change that would be introduced by the project and the corresponding viewer response to that change.

The physical changes caused by the project manifest themselves mainly in terms of form, line, color, and texture, as well as the associated relational aspects of scale, dominance, diversity, and continuity. These inherent physical attributes are visually experienced as an integrated whole, defining the perceived visual character of the landscape. How these attributes relate to one another and their setting is assessed in part by analyzing what is defined in the FHWA methodology guidance as the view's *vividness, intactness, and unity*. These three visual rating criteria are described as follows:

- Vividness is the visual power or memorability of the landscape components as they combine in striking and distinctive visual patterns.

- Intactness is the visual integrity of the landscape and its freedom from non-typical encroaching elements. If all of the various elements of a landscape seem to "belong" together, there will be a high level of intactness.

- Unity is the visual harmony of the landscape considered as a whole. Unity represents the degree to which potentially diverse visual elements maintain a coherent visual pattern.

To understand and predict viewer response to the appearance of a project, the viewers who may see the project are identified, along with the aspects of the visual environment to which they are likely to respond. Major viewer groups are differentiated by physical factors that modify perception. For development projects, the physical location of each viewer group, the number of people in each group, and the duration of their view are established. The receptivity of different viewer groups to the visual environment is not equal. This variable receptivity is defined as

viewer sensitivity and is strongly related to visual preference. It modifies visual experience directly by means of viewer activity and awareness; indirectly, sensitivity modifies experience by means of values, opinions, and preconceptions.

Viewer response assumptions include consideration of viewing proximity, duration of views, activity while viewing, and overall viewing context. Local values based on visual preferences, historical associations, and community aspirations and goals are also important indices of predicting viewer sensitivity and response to change.

Based on the project's proximity to high quality visual resources, as well the importance of the visual environment identified in applicable planning documents, this analysis assumes a moderately high level of viewer sensitivity regarding the project site. At any given viewpoint, this level of viewer sensitivity is modified by the previously mentioned factors such as viewing distance, location, and availability. The overall number of viewers and duration of views can also amplify or diminish the degree of visual sensitivity generally-assumed for a certain viewpoint.

4.1.4.2 Project Visibility

Within Campus

From within the University, project visibility would generally be limited to viewpoints in the southeastern portion of the campus. The size of existing buildings and density of development including the PAC, Recreation Center, and other related structures north and northwest of the project site would preclude much of the project visibility from the campus core. The project would be most visible from viewpoints along Grand Avenue, the student housing and restaurant to the east, the PAC entry plaza, and the recreation facilities to the west. Many visitors to campus would likely become most familiar with the project appearance while travelling Grand Avenue and attending the various entertainment and sporting events at the PAC and nearby gymnasiums (refer to Photos 4.1-17 through 4.1-19). Currently views within the project site itself offer visibility of and through the site. The extent and type of these views would be altered with implementation of the project. Although some views from the existing surface parking lot to the surrounding area would be reduced, the project would provide more expansive viewing opportunities from the new housing units and parking garage.

Photo 4.1-17.
View of the project site from northbound Grand Avenue.

Photo 4.1-18.
View of the project site from southbound Grand Avenue.

Photo 4.1-19.
View of the project site looking south from the PAC entry plaza.

Surrounding Community

The project would be seen to varying degrees from the surrounding residential neighborhoods. These neighborhoods include areas south, southeast, and southwest of campus. Topography, residential development, and mature vegetation limit much of the views to the project site from the surrounding neighborhoods. Portions of the project would be visible from sections of nearby public roadways and their associated residences, including but not limited to, Grand Avenue, Slack Street, Longview Lane, Albert Drive, Hathaway Avenue, and McCollum Street (refer to Photos 4.1-20 through 4.1-26). Of these local roadways the project would be most readily seen from segments of Grand Avenue and Slack Street, which both front the project site. Currently, the project site includes mature trees around much of its perimeter along Grand Avenue and Slack Street. The existing trees along Slack Street combined with the parking lot's elevated position screen much of the view of the project site. The Grand Avenue Learning Center (formerly Pacheco Elementary School) located near the corner of Grand Avenue and Slack Street would also have a view of the project.

The local topography causes portions of the adjacent residential neighborhoods to be somewhat elevated above the campus and the project site. As a result, some of these areas can have broader views of the surrounding landscape. The surrounding hills are also often part of the overall viewshed from these locations. Views of the Santa Lucia foothills are most pronounced from these viewpoints. Because of the mature trees and landscaping throughout these established neighborhoods, views of the campus and the project site are often filtered or blocked. As seen from the public roads servicing these neighborhoods, the residences themselves often preclude views to the University and the project site. Where visible, views from these neighborhoods show the project site in the context of the greater campus development. The viewshed from these elevated areas typically include the PAC, the parking structure, the Recreation Center, student housing along Grand Avenue, and portions of the existing project site parking lot.

Photo 4.1-20.
View from Slack Street looking west toward the project site.

The project site is located beyond the trees seen in the center of the photo.

Photo 4.1-21.
View from Slack Street looking northeast toward the project site.

The project site is located beyond the trees seen in the center of the photo.

Photo 4.1-22.
View from the corner of Longview Street and Slack Street looking northeast toward the project site.

The project site is to the right of the PAC seen in the left side of the photo.

Photo 4.1-23.
View from McCollum Street looking north toward the project site.

The project site is located in front of and below the existing student housing seen on the hillside in the center of the photo.

Photo 4.1-24.
View from Albert Drive looking north toward the project site.

The project site is located in front of and below the existing student housing barely seen on the hillside in the center of the photo.

Photo 4.1-25.
View from Longview Street north of Slack Street looking east toward the project site.

The project site is located in front of and below the existing student housing seen on the hillside in the center of the photo.

Photo 4.1-26.
View from the Hathaway Avenue approaching Longview looking east toward the project site.

The project site is located in front of and below the existing student housing seen on the hillside in the center of the photo.

4.1.5 Project-specific Impacts and Mitigation Measures

4.1.5.1 Have a substantial adverse effect on a scenic vista.

For the purpose of this study, scenic vistas are considered to be views which are either defined as such by the University or the City, and/or are expansive views of a highly valued landscape for the benefit of the general public. The section of Grand Avenue that approaches campus from the south and extends north along the project site for approximately 150 feet is a designated Scenic Roadway (City of San Luis Obispo 2006). Scenic vistas seen from the project area and the vicinity include views of the Morros to the west and northwest, and views of the Santa Lucia foothills and Cuesta Ridge to the east, northeast and south. Where visible, these surrounding hills and landforms increase the vividness, or memorability of the view. From the designated Scenic Roadway section of Grand Avenue (refer to Photo 4.1-27), views of the Morros are substantially blocked by intervening vegetation and development. Views to the Santa Lucia foothills provide a scenic backdrop to the east and northeast. It is inferred that the scenic value

in this location is attributed to the prominent gateway aesthetic associated with the Grand Avenue entrance to campus.

Photo 4.1-27.
View from Grand Avenue looking northwest, typical of the views from the southern and mid-sections of the Grand Avenue frontage.

Travelling northbound along Grand Avenue, limited views of the Morros become available approximately 900 feet north of the intersection with Slack Street. From Grand Avenue, particularly along the southern portion of the project frontage, views to the Morros are partially screened by existing trees lining the roadway. Because of this partial screening, noticeability of the Morros along the southern and mid-sections of Grand Avenue is reduced, the peaks do not dominate views, and are less vivid in the landscape (refer to Photo 4.1-27). Continuing north, fewer trees line the roadside and views of Bishop Peak and Cerro San Luis become readily available (refer to Photo 4.1-28).

Photo 4.1-28.
View from Grand Avenue looking northwest, illustrating the views from the northern section of the Grand Avenue frontage.

Along the southern and mid-section of the Grand Avenue site frontage, existing views of the Morros are substantially filtered by existing vegetation. Construction of the proposed housing structures along this southern and middle portion of the site would further restrict these views. This incremental reduction of visibility would not be substantial because the Morros are not dominant or particularly memorable visual elements along this section of roadway. Along the

northern section of the Grand Avenue project frontage, no student housing is proposed, and an open plaza area would be created throughout the northeast portion of the site. The proposed parking garage would be positioned west of the plaza along Pacheco Way. Due to the sloping site, the easternmost façade of the parking structure (closest to Grand Avenue) would be less than the western frontage and only approximately 30 feet in height. A surface parking area and landscaping would be located north of the parking structure and plaza. Because of the parking structure's relatively low height and location along the western portion of the site, combined with the more open character of the plaza and surface parking area, views of the Morros and their associated vividness generally would be preserved (refer to Figure 4.1-1). The preliminary landscape plan shows trees to be planted throughout this northern part of the site. Densely planted trees over 20 feet in height in this area would, however, potentially block views to the Morros from Grand Avenue.

Figure 4.1-1. Photo-Simulation of the Parking Garage at the Northern Portion of the Project, Looking Southwest from Grand Avenue

Scenic vistas from the surrounding neighborhoods and associated public roadways also include the Morros, Santa Lucia foothills, and, from certain elevated locations, the city. As seen from the neighborhoods south and southwest of the project, views to the Morros would not be affected by the new student housing and parking structures. From most of these neighborhood viewpoints the Morros are oriented further to the west, and the project would be east of that viewing direction. Views of the Santa Lucia Foothills and Cuesta Ridge and their associated vividness would not be reduced because the project would only occupy the lowest portion of the viewshed and would not visually extend above the height of the existing student housing east of Grand Avenue.

From approximately 50% of Slack Street fronting the project, views to the Morros and Santa Lucia foothills are currently blocked by mature vegetation and the elevated slope along the north side of the roadway.

Views of Cerro San Luis and Bishop Peak from the neighborhood east of Grand Avenue are also varied. From this neighborhood, views of Cerro San Luis are further to the south and would not be interrupted by the project. Views of Bishop Peak are already substantially screened by

existing development and landscaping. As seen from this neighborhood, views or vividness of the Santa Lucia foothills and Cuesta Ridge to the north and east would not be affected by the project, which would be to the northwest.

As seen from portions of the neighborhood west of the project, including viewpoints heading east on Hathaway Avenue, the project would be seen in the mid-ground, past the sports fields. From this viewpoint the project would block some of the existing student housing east of Grand Avenue, but would not block views of the undeveloped hillside above.

AES Impact 1
Trees and other landscaping placed in and around the proposed plaza area and surface parking lot at the northern end of the site has the potential to block existing quality views of Bishop Peak and Cerro San Luis as seen from portions of Grand Avenue and other public viewing locations, resulting in a direct long-term impact to the scenic vista.
Mitigation Measures
AES/mm-1 *Prior to approval of the development plan, the University shall prepare a comprehensive Landscape Plan for review and approval by the CSU. The Landscape Plan shall be prepared by a licensed Landscape Architect. The Landscape Plan, as it relates to the plaza and surface parking areas at the northern portion of the project site, shall include the following in conjunction with other view-preserving measures determined by the Landscape Architect:* *a. The minimum number of trees shall be planted which meet the aesthetic and climatological need of the site.* *b. Trees shall be clustered, leaving substantial open areas to allow views and sightlines from Grand Avenue to the Morros;* *c. New trees within 30 feet of the new parking structure shall not exceed the height of the adjacent parking structure facade;* *d. New trees further than 30 feet from the new parking structure shall not exceed 20 feet in height;* *e. No new street trees shall be planted on Grand Avenue project frontage north of the northern-most new student housing structure;* *f. Deciduous trees shall be used to the greatest extent practical.*
Residual Impacts
The project would have an effect on scenic vistas as seen from portions of Grand Avenue and Slack Street. The views of scenic vistas from these locations however are already substantially compromised by intervening vegetation, landform and development. The measures identified in AES/mm-1 apply to the northern portion of the project site and would not result in reduced screening of the southern portion of the facility. With implementation of this mitigation measure, existing quality scenic vistas would remain and impacts due to reducing scenic vistas would be considered *less than significant with mitigation (Class II)*.

4.1.5.2 Substantially degrades the existing visual character or quality of the site and its surroundings.

The visual context of the project site is mostly influenced by the iconic uses and buildings of University development. Although bordered to the south, southeast, and southwest by predominantly residential neighborhoods, the project location is clearly within the campus boundary. Accordingly, viewer expectations related to the project site would consider campus-style development appropriate, including scale, usage, and patterns consistent with the rest of the University. The project would place new student housing and a parking structure in the immediate vicinity of existing student housing and an existing parking structure. The proposed

structures would be visually compatible with the somewhat modern, institutional architecture of campus development constructed over the last several years. Proposed buildings would generally include articulated exterior walls and would be angled away from the axis' of adjacent roadways, which would add visual interest and reduce the project's spatial dominance on the surrounding area. The visual cohesion of campus is based largely on the open space and connections between buildings rather than the buildings themselves. The project would contribute to that cohesiveness by providing plazas, sightlines into and through the area, landscaped grounds and pedestrian corridors. The project would cause a moderate increase in the visual intactness and unity of the site due to its general continuity with existing campus development and aesthetic patterns.

As seen from the surrounding neighborhoods, the project would appear as an extension of the existing campus. From some of the more elevated neighborhood viewpoints, more of the project would potentially be visible. From these viewpoints the project would not look out of place and would be seen as an appropriate use consistent with the surrounding development patterns of the campus. Overall the project would be an expected visual element at this location, and would be consistent with the architectural styles and development patterns of the campus and the existing visual interface with the surrounding community (refer to photo-simulation Figure 4.1-2).

Figure 4.1-2. Photo-Simulation of the Project as seen from the Corner of Slack Street and Longview Lane

The conceptual project plan shows that the project would retain much of the existing mature screening vegetation along its southern and western perimeters, and that a number of new trees and planting areas would be included as part of the project. Further refinement of this plan is recommended to ensure the effectiveness of proposed landscaping in terms of aesthetic value and visual screening benefit. New landscaping, if too sparse or too small on the southern and western sides of the project, could result in increased visibility of the structures as seen from Slack Street and neighborhoods to the south (refer to Photo 4.1-29). Furthermore, mitigation is

recommended to address short-term alterations in visual character associated with construction and potential tree removal.

Photo 4.1-29.
View from Slack Street immediately south of the project site showing the existing vegetation on the slope and the proposed additional screen planting area.

AES Impact 2
The project would potentially conflict with the visual character with the surrounding area. Inappropriate or insufficient planting along the southern and western perimeters of the project could cause an increased visibility of the structures as seen from Slack Street and neighborhoods to the south, resulting in a direct long-term impact to the visual character of the site and surrounding.
Mitigation Measures
AES/mm-2 *Prior to approval of the development plan, the University shall prepare a comprehensive Landscape Plan for review and approval by the State Architect. The Landscape Plan shall be prepared by a licensed Landscape Architect. The Landscape Plan, in addition to other measures listed in this report, shall include the following:* *a. Trees and shrubs shall be planted along the southern and western perimeters of the project for the purpose of screening the new structures from off campus viewing locations to the south and west. Planting shall provide visual screening of at least 50 percent of the project as seen from viewpoints on Slack Street and shall occur as soon as practical in coordination with the grading and construction plans and schedule.*
Residual Impacts
The project would be visible throughout much of the surrounding area. Where visible however the project would be visually consistent with the development patterns and architecture of the campus. From off-campus locations the project would appear as an extension of the adjacent PAC, recreation facilities, and student housing east of Grand Avenue, and would not look out-of-place. With implementation of this mitigation measure, the noticeability of the project as seen from neighborhoods surrounding the project would be further reduced, and impacts to the visual character of the site and surroundings would be considered *less than significant with mitigation (Class II)*.

AES Impact 3	
During construction of the project, visibility of the site, equipment, materials, and related activities would cause visual clutter and reduce the visual quality of the area as seen from Slack Street and neighborhoods to the south, resulting in a direct short-term impact to the visual character of the site and surroundings.	
Mitigation Measures	
AES/mm-3	*As soon as practical after commencement of construction, the University shall install fencing and/or landscape screening along the Slack Street frontage of the site to screen construction activities from view. Staging areas will be located generally away from Slack Street, and the southern end of the project site shall be planted as soon as practical.*
Residual Impacts	
Throughout the construction phases of the project the above measure would substantially reduce project noticeability, and short-term impacts to the visual character of the site and surroundings would be considered *less than significant with mitigation (Class II)*.	

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

Currently, night lighting can be seen throughout much of the project vicinity. The project site itself includes parking lot lighting, and Grand Avenue, Slack Street, and other local roadways in the vicinity include streetlights. The PAC, sporting venues, and existing parking structure all contribute to the existing nighttime lighting level. For safety reasons the campus is lit at night and produces a moderate amount of ambient nighttime lighting visible from the surroundings. Residential lighting can also be seen throughout the area.

No specific lighting plan is included as part of the project plans at this time, however the EIR analysis assumes that exterior lighting would be included as part of the project. Consistent with other lighting schemes on campus it is expected that the project's exterior lighting plan would provide light in areas such as paths and walkways, entrances and exits, parking and emergency areas, and places and buildings of interest. Interior lights would also be seen emanating from building windows. Lights from upper-floor windows would be seen from a greater portion of the surrounding area.

Although the project is in an urban area with a moderate amount of existing ambient light, based on the project's prominent location and proximity to public viewpoints, the project has the potential to cast a substantial new source of light and glare into the area. The project description includes the following Master Plan mitigation related to lighting:

- All exterior lighting associated with the proposed Master Plan shall be hooded. No unobstructed beam of light shall be directed toward sensitive uses (e.g., Brizzolara Creek, Drumm Reservoir, Environmental and Horticultural Sciences (EHS), and neighborhoods). The use of reflective materials in all structures shall be minimized (e.g., metal roofing, expanses of reflective glass on west-facing walls).

- Parking Structures. All interior lighting associated with proposed parking structures shall be directed internally with lamp "cut-off shields.

- Unobstructed beams of light shall not be directed toward land uses outside the structures and shall not interfere with vehicular traffic on nearby streets.

- Examples of specifications for minimizing light and glare include the following:

- All lights must be shielded to avoid glare and light spill-over onto adjacent areas and onto public right-of-way areas;

- Landscape illumination should be done with low level, unobtrusive fixtures;

- Parking structure lighting shall be designed to provide the minimum safe lighting levels. Per IES standards, this is 6 foot-candles (fc) maintained throughout internal to the structure, and 1 fc minimum on the roof;

- The use of reflective materials on the exterior of all structures shall be minimized;

- Internal lightwells will be provided to maximize the amount of natural light;

- Light fixtures will include a vertical component to create an even distribution of light;

- Solid rails shall be included around the perimeter to block light spillage from headlights on cars within the structure; and,

- All roof light fixtures shall be located on the interior columns to keep light from spilling out on to adjacent areas, and will include “cut-off” shields.

Inclusion of the above mitigation in the project description will ensure light spillover and general contributions to ambient lighting levels are reduced. Additional mitigation is included to further refine the lighting and glare reduction plan for the site. Impacts are considered *less than significant with mitigation (Class II)*.

AES Impact 4	
Project lighting has the potential for glare caused by direct visibility of the light sources, light spill-over into areas other than the intended area, and for general atmospheric light pollution. The project’s prominent location and building heights could increase noticeability of light sources and glare. Inappropriate lighting design, including light placement and height, luminaire type, housing, reflectors, lenses and shields could create a new source of substantial light and glare which would adversely affect nighttime views in the area, resulting in a direct long-term impact.	
Mitigation Measures	
AES/mm-4	*Prior to approval of the development plan, the applicant shall submit a comprehensive lighting plan for review and approval by the State Architect. The Lighting Plan shall be prepared by a qualified engineer who is an active member of the Illuminating Engineering Society of North America (IESNA) using guidance and best practices endorsed by the International Dark Sky Association. The lighting plan shall address all aspects of the lighting, including but not limited to all buildings, infrastructure, surface parking lots, parking garage decks, portals and driveways, paths, recreation areas, safety, and signage. The lighting plan shall include the following in conjunction with other measures as determined by the illumination engineer:* *a. The point source of all exterior lighting shall be shielded from off-site views;* *b. Light trespass from exterior lights shall be minimized by directing light downward and utilizing cut-off fixtures or shields;*

AES Impact 4
c. *Lumination from exterior lights shall be the lowest level allowed by public safety standards;* d. *Exterior lighting shall be designed to minimize illumination onto exterior walls; and,* e. *Any signage visible from off-site shall not be internally illuminated.*
Residual Impacts
The project would add a new source of nighttime light into portions of the surrounding area. However a substantial amount of night light currently exists in the area due to the surrounding residential neighborhoods and streets, campus buildings and housing. With implementation of this mitigation measure, visibility of new lights, light spillover, and atmospheric light pollution would be minimized by lighting design, fixtures, placement, height, intensity and other dark-skies best management practices. As a result impacts due to night lighting would be considered *less than significant with mitigation (Class II)*.

4.1.5.4 Plan Consistency

The project is consistent with Master Plan principles listed in Section 4.1.2.1, including beautification of campus gateways, sensitive design of parking facilities, and design sensitive to neighborhoods. The project locates parking away from neighborhoods and masks the parking function by ancillary facilities. The project orients residential buildings internal to campus and the site, and includes substantive tree planting and lighting restrictions to reduce impacts to neighborhoods. Mitigation recommended above provides additional guidance for landscaping and lighting which will further reduce impacts. The project is considered consistent with Master Plan policies regarding aesthetics and impacts are *less than significant (Class III*).

4.1.6 Cumulative Impacts

The discussion of cumulative impacts relates to the potential for the project to contribute to an aggregate change in visual quality from the surrounding public viewing areas, taking into consideration existing as well as proposed development. The University has undergone visual change within the last several years due to new projects and redevelopment within the campus instructional core. These changes have resulted in a slightly increased and modernized built-character. Visual changes to the neighborhoods surrounding the project are mostly the result of new residential infill development and remodels. As existing residential structures age, new houses and reconstruction are expected to continue. The City is not currently proposing any additional substantial development within this area or within identified viewsheds. Much of the new construction on campus is not visible from surrounding roadways because of intervening landform, existing development, or viewing distance.

The project would be consistent with the development patterns on campus, and would not be an unexpected visual feature. Although the proposed structures would contribute to the built environment, it is considered in-fill. As a result, with implementation of the mitigation measures described in this section the project's cumulative effect on the visual environment would be considered *less than significant with mitigation (Class II)*.

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4.2 AIR QUALITY AND GREENHOUSE GAS EMISSIONS

4.2.1 Existing Conditions

4.2.1.1 Regional Setting

San Luis Obispo County constitutes a land area of approximately 3,316 square miles with varied vegetation, topography, and climate. From a geographical and meteorological standpoint, the county can be divided into three general regions: the Coastal Plateau, the Upper Salinas River Valley, and the East County Plain. Air quality in each of these regions is characteristically different, although the physical features that divide them provide only limited barriers to the transport of pollutants between regions. Approximately 75% of the county population and a corresponding portion of the commercial and industrial facilities are located within the Coastal Plateau. Due to higher population density and closer spacing of urban areas, emissions of air pollutants per unit area are generally higher in this region than in other regions of the county. The project is located within the Coastal Plateau.

The county's air quality is measured by multiple ambient air quality monitoring stations: four SLOAPCD-operated permanent stations, two state-operated permanent stations, two special stations, and one station operated by Tosco Oil Refinery for monitoring sulfur dioxide (SO_2) emissions. The significance of a given pollutant can be evaluated by comparing its atmospheric concentration to state and federal air quality standards, which are presented in Table 4.2-1, below. These standards represent allowable atmospheric contaminant concentrations at which the public health and welfare are protected, and include a factor of safety. In San Luis Obispo County, ozone and PM_{10} (respirable particulate matter) are the pollutants of main concern, since exceedances of state health-based standards for those pollutants are experienced here in most years. For this reason, the county has been designated as a non-attainment area for the state ozone and PM_{10} standards (SLOAPCD 2010). The county is in attainment for all other standards.

Table 4.2-1. Ambient Air Quality Standards

Pollutant	Averaging Time	California Standards [1]	Federal Standards [2]	
		Concentration [3]	Primary [3,4]	Secondary [3,5]
Ozone (O_3)	1 Hour	0.09 ppm (180 µg/m^3)	-----	Same as Primary Standard
	8 Hour	0.07 ppm (137 µg/m^3)	0.075 ppm (147 µg/m^3)	
Fine Particulate Matter ($PM_{2.5}$)	24 Hour	No California Standards	65 µg/m^3	Same as Primary Standard
	Annual arithmetic mean	12 µg/m^3	35 µg/m^3	
Respirable Particulate Matter (PM_{10})	24 Hour	50 µg/m^3	150 µg/m^3	
	Annual arithmetic mean	20 µg/m^3	-----	
Carbon Monoxide (CO)	8 Hour	9.0 ppm (10 mg/m^3)	9 ppm (10 mg/m^3)	-----
	1 Hour	20 ppm (23 mg/m^3)	35 ppm (40 mg/m^3)	
Nitrogen Dioxide (NO_2)	Annual arithmetic mean	0.030 ppm (57 µg/m^3)	53 ppm (100 µg/m^3) [6]	Same as Primary Standard
	1 Hour	0.18 ppm (339 µg/m^3)	100 ppm (188 µg/m^3) [6]	-----
Lead[8]	30 day average	1.5 µg/m^3	-----	-----
	Calendar quarter	-----	1.5 µg/m^3	Same as Primary Standard
	Rolling 3-Month Average [9]	-----	.15 µg/m^3	
Sulfur Dioxide (SO_2)	24 Hour	0.04 ppm (105 µg/m^3)	-----	-----
	3 Hour	-----	-----	0.5 ppm (1300 µg/m^3) [7]
	1 Hour	0.25 ppm (655 µg/m^3)	75 ppb (196 µg/m^3) [7]	-----

Table 4.2-1. Ambient Air Quality Standards

Pollutant	Averaging Time	California Standards [1]	Federal Standards [2]	
		Concentration [3]	Primary [3,4]	Secondary [3,5]
Visibility Reducing Particles	8 Hour	Extinction coefficient of 0.23 per kilometer – visibility of 10 miles or more (0.07 – 30 miles or more for Lake Tahoe) due to particles when relative humidity is less than 70%.	No Federal Standards	
Sulfates	24 Hour	25 $\mu g/m^3$		
Hydrogen Sulfide	1 Hour	0.03 ppm (42 $\mu g/m^3$)		
Vinyl Chloride [8]	24 Hour	0.01 ppm (26 $\mu g/m^3$)		

Notes: for additional information on Notes, please refer to the website: http://www.arb.ca.gov/research/aaqs/aaqs2.pdf

Source: California Air Resources Board 2010.

Greenhouse Gas Emissions and Climate Change

Climate change refers to any significant change in measures of climate such as temperature, precipitation, or wind, lasting for decades or longer (EPA 2013). Climate change may result from natural factors, such as volcanoes, but is predominantly a result of human activity, including the burning of fossil fuels and land use changes such as deforestation and urbanization.

Human activities release carbon dioxide (CO_2) and other compounds, cumulatively termed greenhouse gas (GHG) emissions. GHGs are effective in trapping infra-red radiation which otherwise would have escaped the atmosphere, thereby warming the atmosphere, the oceans, and earth's surface (EPA 2013). The main GHGs include carbon dioxide (CO_2), methane (CH_4), and nitrous oxide (N_2O) (EPA 2013).

According to the 2013 Emissions Inventory prepared by the California Air Resources Board (CARB):

> California's gross emissions of greenhouse gases decreased by 6 percent from 478.4 million tons of CO2e in 2001 to 448.1 million in 2011, with a maximum of 489.2 million tons in 2004. During the same period, California's population grew by 9 percent from 34.5 to 37.6 million people. As a result, California's per capita GHG emissions have decreased over the last 11 years from 13.9 to 11.9 tons of CO2e per person. In 2011, emissions continued to decrease for the transportation and electric power sectors. Emissions from all other sectors remained relatively flat or increased slightly from 2010…

According to the CARB, transportation remains the largest source of GHG emissions with 37.6 percent of the inventory. Over 92 percent of emissions in the transportation sector can be attributed to on-road vehicles, including passenger vehicles, and heavy duty trucks and buses. Other sources include power, industrial, and commercial, residential and agricultural land uses.

The potential effects of future climate change on California resources include:

- Air temperature rise
- Sea level rise
- Decreased water resources, including snowpack

- Forest changes, including increased wildfire
- Ecosystems composition changes
- Increased water demand/crop changes for agriculture
- Increased allergen production (EPA 2013).

4.2.1.2 Project Setting

Current conditions are considered the environmental setting or baseline. In the case of the proposed project, the baseline condition includes a 1,324-space parking lot. Existing conditions also include general campus operations—the site is located along a campus transportation corridor (Grand Avenue), with a parking structure to the northwest and campus residences to the east. The project site is located within 100 feet of a former elementary school site, which is currently leased to private elementary schools.

Campus operations, including vehicle traffic, contribute to existing emissions and pollutant levels in the area. The University has a multi-pronged approach to the reduction of air quality impacts associated with operations based in large part on strategies set forth in the 2001 Master Plan. These include, but are not limited to:

- Increased on-campus housing;
- Development of on-campus markets and other opportunities to reduce shopping trips;
- Continued bus subsidies;
- Improved bus shelters and signage/information;
- Improved bicycle facilities, including new pathways along the Union Pacific Railroad (UPRR) and California Boulevard, bicycle racks, improved striping, and signage on campus;
- Closure of South Perimeter Drive to vehicle traffic; and,
- Improved pedestrian pathways and signage on campus.

Continued development of on-campus housing and reductions in parking are consistent with previous efforts to reduce vehicle trips and air emissions associated with campus operations.

4.2.2 Regulatory Setting

4.2.2.1 Federal Policies and Regulations

Air quality protection at the national level is provided through the Federal Clean Air Act (Federal CAA) and subsequent Federal CAA Amendments. The current version was signed into law on November 15, 1990. These amendments represent the fifth major effort by the U.S. Congress to improve air quality. The 1990 Federal CAA standards are generally less stringent than the California Clean Air Act (California CAA). However, unlike the California law, the Federal CAA set statutory deadlines for attaining federal standards. The 1990 Federal CAA added several new sections to the law, including requirements for the control of toxic air contaminants, reductions in pollutants responsible for acid deposition, development of a national strategy for stratospheric ozone and global climate protection, and requirements for a national permitting system for major pollution sources.

4.2.2.2 State Policies and Regulations

The California CAA was signed into law in September of 1988. It requires all areas of the state to achieve and maintain the California ambient air quality standards by the earliest practicable date. These standards are generally more stringent than the Federal CAA standards; thus, emission controls to comply with the State law will generally be sufficient to comply with the Federal standards as well. The California CAA requires that all APCDs adopt and enforce regulations to achieve and maintain the state ambient air quality standards for the area under its jurisdiction. Pursuant to the requirements of the law, the SLOAPCD has adopted the Clean Air Plan for San Luis Obispo County, which undergoes subsequent updates as required.

The California Global Warming Solutions Act of 2006 (AB 32, Health and Safety Code §38500 et seq.) requires the CARB to design and implement emission limits, regulations, and other measures. These will reduce, by 2020, statewide GHG emissions in a technologically feasible and cost-effective manner to 1990 levels (representing a 25% reduction). The following summarizes the process and schedule for implementing AB 32:

- June 30, 2007: CARB published a list of discrete early action GHG emission reduction measures that can be implemented prior to the measures and limits to be adopted to meet the 2020 limit.

- September 7, 2007: CARB released a list of additional early action measures and discrete early actions.

- January 1, 2008: CARB determined what the statewide GHG emissions level was in 1990 and approves a statewide GHG limit that is equivalent to that level.

- January 1, 2008: CARB adopted regulations requiring the reporting and verification of statewide GHG emissions.

- January 1, 2009: CARB adopted a scoping plan for achieving the maximum technologically feasible and cost-effective reductions in GHG emissions from sources or categories of sources of GHGs by 2020.

- January 1, 2010: CARB adopted and enforced regulations to implement the GHG emission reduction measures identified on the early action list in 2007.

- January 1, 2011: CARB adopted regulations to achieve the required reduction of GHG emissions to 1990 levels by 2020.

- January 1, 2012: GHG emission limits and emission reduction measures adopted by January 1, 2011, became enforceable.

Senate Bill (SB) 1368 (Public Utilities Code §8340 et seq.) is an AB 32 companion bill that was signed into law in 2006. It requires the California Public Utilities Commission (CPUC) to establish a GHG performance standard for base load generation from investor-owned utilities, and the California Energy Commission (CEC) to establish a similar standard for publicly-owned utilities. These standards may not exceed the GHG emission rate from a base load combined-cycle natural gas fired plant. The bill also requires all imported electricity provided to California to be generated from plants meeting CPUC and CEC standards.

By enacting SB 97 in 2007, California's lawmakers expressly recognized the need to analyze GHG emissions as a part of the CEQA process. SB 97 required the California Office of Planning and Research to develop, and the Natural Resources Agency to adopt, amendments to the CEQA Guidelines addressing the analysis and mitigation of GHG emissions. Those CEQA Guidelines amendments clarified several points, including the following:

- Lead agencies must analyze the GHG emissions of proposed projects, and must reach a conclusion regarding the significance of those emissions. (See CEQA Guidelines §15064.4.)

- When a project's GHG emissions may be significant, lead agencies must consider a range of potential mitigation measures to reduce those emissions. (See CEQA Guidelines §15126.4(c).)

- Lead agencies must analyze potentially significant impacts associated with placing projects in hazardous locations, including locations potentially affected by climate change. (See CEQA Guidelines §15126.2(a).)

- Lead agencies may significantly streamline the analysis of GHGs on a project level by using a programmatic GHG emissions reduction plan meeting certain criteria. (See CEQA Guidelines §15183.5(b).)

- CEQA mandates analysis of a proposed project's potential energy use (including transportation-related energy), sources of energy supply, and ways to reduce energy demand, including through the use of efficient transportation alternatives. (See CEQA Guidelines, Appendix F.)

As part of the administrative rulemaking process, the Natural Resources Agency developed a Final Statement of Reasons explaining the legal and factual bases, intent, and purpose of the CEQA Guidelines amendments. Other rulemaking documents can be accessed on the Natural Resources Agency's rulemaking website (http://ceres.ca.gov/ceqa/guidelines/). The amendments to the CEQA Guidelines implementing SB 97 became effective on March 18, 2010 (State of California 2011).

4.2.2.3 Local Policies and Regulations

The 2001 San Luis Obispo County Clean Air Plan is used by the SLOAPCD to address attainment of national and State fugitive dust (PM_{10}) and ozone standards for the entire county. The Clean Air Plan is a comprehensive planning document intended to provide guidance to the SLOAPCD and other local agencies how to attain and maintain the state standards for ozone and PM_{10}. The Clean Air Plan presents a detailed description of the sources and pollutants which impact the jurisdiction, future air quality impacts to be expected under current growth trends, and an appropriate control strategy for reducing ozone precursor emissions, thereby improving air quality.

Local efforts to quantify and reduce GHG emissions have primarily been undertaken by the SLOAPCD. Many of the programs currently implemented by SLOAPCD to reduce emissions and exposure to criteria and toxic air pollutants may also reduce GHG emissions. The following is a brief summary of these programs:

- Rules and Regulations: Numerous rules adopted by the County Board of Supervisors and implemented by SLOAPCD to address criteria pollutant emissions also have the

side benefit of reducing GHGs. For instance, several SLOAPCD rules address conventional emissions from combustion sources such as boilers, heaters, and engines that often result in equipment modifications or replacement that improves the energy efficiency of those units and reduces fossil fuel use. Similarly, rules that regulate or prohibit open burning activities reduce CO_2 emissions from that activity. SLOAPCD Rule 426 regulates landfill emissions of methane.

- Clean Fuels: SLOAPCD is actively involved in and supports the efforts of the Central Coast Clean Cities Coalition (C5), a local nonprofit coalition which promotes the use of cleaner alternative fuel technologies. With over 40% of the GHG emissions coming from mobile sources, these efforts are an essential tool in reducing fossil fuel use and associated CO_2 emissions.

- Development Review: Through the CEQA review process, SLOAPCD evaluates impacts from land use development projects and recommends measures to reduce emissions. Mitigation measures focus on reducing emissions from motor vehicles and improving energy efficiency, both of which directly reduce criteria pollutants and GHGs. Such strategies include incorporation of energy efficiency measures (increased insulation, high efficiency appliances and lighting, passive and active solar systems, etc.) that go beyond current building standards, and including Smart Growth principles into the project design to reduce vehicle trips and increase the viability of alternative transportation.

- Grant Programs: Many emission reduction projects funded through the various grant programs administered by SLOAPCD result in replacement or retrofit of older, high emission engines with cleaner and more efficient engines that simultaneously reduce fuel use, thus reducing CO_2 emissions. Conversion of stationary and mobile diesel engines to natural gas or electric motors also serves to reduce CO_2 emissions.

- Transportation Choices Program: In partnership with San Luis Obispo Regional Rideshare, Ride-On, and SLOAPCD, the Transportation Choices Program (TCP) is a free program offered to businesses and organizations throughout San Luis Obispo County to reduce employee and student commute trips and promote the use of alternative transportation.

- Pollution Prevention: The Pollution Prevention Program promotes the use of, and publicly recognizes small businesses which successfully employ, pollution prevention and emission reduction techniques as part of routine operating procedures. Many of the businesses so recognized have incorporated operational changes that reduce their emissions through efficiency improvements that also reduce fuel and product use and save energy.

- Public Outreach: SLOAPCD implements a number of outreach campaigns to promote a variety of clean air programs, including backyard burning reduction programs, clean car awareness, pollution prevention, energy efficiency, and transportation alternatives, all of which promote community consciousness and lifestyle choices that can help reduce our impacts on climate change.

4.2.2.4 CSU Policies and Regulations

Air quality is addressed in the CSU system on several fronts, including the campus Master Plan, transportation planning, and operations. The University does not set its own standards for air

quality emissions, and instead relies on standards and thresholds established by the SLOAPCD. The campus Master Plan addresses air quality by following principles such as compactness and sustainability in the allocation of land use.

The Campus Administrative Policies (CAP) include policies which address air quality, such as:

> *151.2[5] Sustainability: Practice Institutional Ecology – Use a wide array of sustainable practices, related to water conservation, energy conservation, alternative transportation, and new building construction*
>
> *362.1 Environmental Compliance Program*
>
> *The University shall comply with applicable federal, state, and local laws and regulations related to environmental protection and pollution control.*
>
> *362.1.1 Hazardous Waste Control*
>
> *All hazardous waste materials shall be handled, stored, managed, and disposed in compliance with applicable federal and state laws and regulations.*
>
> *362.1.3 Air Pollution Control*
>
> *All stationary sources of air pollution (engines, boilers, spray booths, etc.) shall have a permit or exemption issued by the San Luis Obispo County Air Pollution Control District prior to installation and operation. The University shall implement transportation control measures consistent with its Trip Reduction Plan in response to the San Luis Obispo County Air Pollution Control Board's Clean Air Plan.*

The CSU system, including Cal Poly, is working to meet the reduction targets mentioned previously. CSU is currently considering inventories of emissions, and is developing system-wide strategies for reductions.

4.2.3 Thresholds of Significance

The significance of potential air quality impacts is based on thresholds identified within Appendix G of the CEQA Guidelines and standards established within the San Luis Obispo Air Pollution Control District (SLOAPCD) CEQA Air Quality Handbook (2012). These guidelines are defined below.

4.2.3.1 CEQA Guidelines

Appendix G of the CEQA Guidelines provides the following thresholds for determining impact significance with respect to air quality and climate change. Impacts would be considered significant if the proposed project would:

1. Violate any state or federal ambient air quality standard, or exceed air quality emission thresholds as established by SLOAPCD.

2. Expose any sensitive receptor to substantial air pollutant concentrations.

3. Create or subject individuals to objectionable odors.

4. Be inconsistent with the SLOAPCD's Clean Air Plan.

5. Generate GHG emissions, either directly or indirectly, that may have a significant impact on the environment.

6. Conflict with an applicable plan, policy, or regulation adopted for the purpose of reducing the emissions of GHGs.

4.2.3.2 San Luis Obispo Air Pollution Control District 2012 CEQA Air Quality Handbook

According to the April 2012 SLOAPCD CEQA Air Quality Handbook, project impacts may be considered significant if one or more of the following special conditions apply:

1. If the project has the ability to emit hazardous or toxic air pollutants in proximity of sensitive receptors, such that an increased cancer risk affects the population.

2. If the project has the potential to emit diesel particulate matter (DPM) in an area of human exposure, even if overall emissions are low.

3. Remodeling or demolition operations where asbestos-containing materials will be encountered.

4. If naturally occurring asbestos has been identified in the project area.

5. If project has the ability to emit hazardous or toxic air pollutants in proximity of sensitive receptors, such as schools, churches, hospitals, etc.

The CEQA Air Quality Handbook defines thresholds for long-term operational emissions and short-term construction-related emissions. Depending on the level of exceedance of a defined threshold, the SLOAPCD has established varying levels of mitigation. Tables 4.2-2 and 4.2-3 summarize the thresholds for long-term operational emissions and short-term construction-related emissions requiring mitigation.

4.2.3.3 GHG and Climate Change

In March 2012, the SLOAPCD approved thresholds for GHG emission impacts, and these thresholds have been incorporated into the CEQA Air Quality Handbook (SLOAPCD 2012). SLOAPCD determined that a tiered process for residential / commercial land use projects was the most appropriate and effective approach for assessing the GHG emission impacts. The tiered approach includes three methods, any of which can be used for any given project:

1. Qualitative GHG Reduction Strategies (e.g. Climate Action Plans): A qualitative threshold that is consistent with AB 32 Scoping Plan measures and goals; or,

2. Bright-Line Threshold: Numerical value to determine the significance of a project's annual GHG emissions; or,

3. Efficiency-Based Threshold: Assesses the GHG impacts of a project on an emissions per capita basis.

For most projects the Bright-Line Threshold of 1,150 metric tons CO_2 per year ($MTCO_2e/yr$) will be the most applicable threshold. In addition to the residential/commercial threshold options proposed above, a bright-line numerical value threshold of 10,000 $MTCO_2e/yr$ was adopted for stationary source (industrial) projects.

It should be noted that projects that generate less than the above mentioned thresholds will also participate in emission reductions because air emissions, including GHGs, are under the purview of the California Air Resources Board (or other regulatory agencies) and will be "regulated" either by CARB, the Federal Government, or other entities. For example, new vehicles will be subject to increased fuel economy standards and emission reductions, large and small appliances will be subject to more strict emissions standards, and energy delivered to consumers will increasingly come from renewable sources. Other programs that are intended to reduce the overall GHG emissions include Low Carbon Fuel Standards, Renewable Portfolio standards and the Clean Car standards. As a result, even the emissions that result from projects that produce fewer emissions than the threshold will be subject to emission reductions.

Under CEQA, an individual project's GHG emissions will generally not result in direct significant impacts. This is because the climate change issue is global in nature. However, an individual project could be found to contribute to a potentially significant cumulative impact. Projects that have GHG emissions above the noted thresholds may be considered cumulatively considerable and require mitigation.

Table 4.2-2. SLOAPCD Thresholds of Significance for Operational Emissions

Pollutant	Threshold [1]	
	Daily (lbs/day)	Annual (tons/year)
Ozone Precursors (reactive organic gases and nitrogen oxides [ROG+NOx])[2]	25	25
DPM [2]	1.25	n/a
Fugitive Particulate Matter (PM_{10}), Dust	25	25
CO	550	n/a
Greenhouse Gases (CO_2, CH_4)	Consistency with Qualified Greenhouse Gas Reduction Plan OR 1,150 MT CO_2e/year OR 4.9 CO_2e/SP/year (residents and employees)	

[1] Daily and annual emission thresholds are based on the California Health & Safety Code Division 26, Part 3, Chapter 10, §40918, and the CARB Carl Moyer Guidelines for DPM.

[2] CalEEMod – use winter operational emission data to compare to operational thresholds.

Source: SLOAPCD 2012 CEQA Air Quality Handbook.

Table 4.2-3. Thresholds of Significance for Construction Operations

Pollutant	Threshold [1]		
	Daily (lbs)	Quarterly Tier 1 (tons)	Quarterly Tier 2 (tons)
ROG+NOx (Combined)	137	2.5	6.3
DPM	7	0.13	0.32
Fugitive Particulate Matter (PM_{10}), Dust [2]	n/a	2.5	n/a
Greenhouse Gases (CO_2, CH_4, N_2O, HFC, CFC, F_6S)	Amortized and Combined with Operational Emissions		

[1] Daily and quarterly emission thresholds are based on the California Health & Safety Code and the CARB Carl Moyer Guidelines.

[2] Any project with a grading area greater than 4.0 acres of worked area can exceed the 2.5-ton PM_{10} quarterly threshold.

Source: SLOAPCD 2012 CEQA Air Quality Handbook.

4.2.4 Impact Assessment and Methodology

4.2.4.1 Analysis Methodology

The latest version of the California Emissions Estimator Model (CalEEMod; Version 2013.2) was used to estimate construction and operational emissions. Modifications were made to the model to account for local conditions, as recommended in the SLOAPCD CEQA Handbook, and to account for aspects of site design and campus features. A detailed list of modifications is provided in Appendix C. Appendix B includes air quality mitigation measures incorporated into the project description from the Master Plan. Model outputs were compared to applicable thresholds to determine level of impact severity.

4.2.5 Project-specific Impacts and Mitigation Measures

4.2.5.1 Violate Standards or Thresholds

Short-term Impacts (Construction)

The project would generate emissions during construction. Construction emissions include exhaust from heavy equipment and worker vehicles, and dust from grading activities and site work. Construction emissions are modeled based on the phasing of construction. For the purposes of modeling, CalEEMod program defaults were used with the exception of the building construction phase, where the total number of days was extended from program default of 300 days to 570 days to reflect actual anticipated construction schedule of approximately 31 months. More detail regarding phasing assumptions is provided in Appendix C.

Unmitigated maximum construction daily emission impacts were compared to SLOAPCD Daily thresholds. Emissions outputs were also compared to the SLOAPCD Quarterly Tier 1 Threshold. The daily threshold is used for small and short-term projects; the impacts of larger and longer-term projects, such as the housing project, are more accurately quantified on a quarterly basis. Summaries of each are provided Table 4.2-4.

Table 4.2-4. Comparison of Maximum Unmitigated Construction Emission Impacts to SLOAPCD Quarterly Thresholds

	(tons/year)			*(pounds/day)* [4]	
	ROG+NOx [1]	**DPM** [2]	**Fugitive PM_{10}** [3]	**ROG+NOx** [1]	**DPM** [2]
Project Emissions [4]	**2.59**	0.08	0.33	**277.97**	4.58
Quarterly Tier 1 Threshold	**2.5**	0.13	2.5	**137**	7.00
Project Construction Emissions Exceed Threshold?	**Yes**	No	No	**Yes**	No

[1] Summation of individual ROG and NOx outputs.

[2] Used exhaust $PM_{2.5}$ emissions as proxy for DPM emissions.

[3] Used total PM_{10} (aggregated exhaust and fugitive PM_{10} emissions).

[4] Used unmitigated annual CalEEMod emissions output. Divided annual values into four quarters for construction years in 2015 and 2016 (12 months of construction each year); divided annual values by two quarters for construction year in 2017 (7 months of construction). Highest of all quarterly emissions were used.

Source: SLOAPCD 2012 CEQA Air Quality Handbook. Emission thresholds listed are for Quarterly Tier 1 and daily thresholds.

The construction of the project would result in emissions of reactive organic gases and nitrogen oxides (ROG+NOx) in excess of stated standards. Construction-related ROG+NOx emissions are largely due to the application of architectural coatings. Impacts are considered potentially significant and mitigation is incorporated. Mitigation includes restrictions on volatile organic compound (VOC) limits in coating materials, and certification of all heavy equipment engines as Tier 3. The project further incorporates mitigation from the Master Plan, included in Appendix B.

After application of mitigation, the following emissions levels result (refer to Table 4.2-5).

Table 4.2-5. Comparison of Mitigated ROG and NOx Construction Emission Impacts to SLOAPCD Quarterly Thresholds

	ROG+NOx Quarterly Maximum Emissions (tons/quarter)*
Project Emissions	2.14
Quarterly Tier 1 Threshold (b)	2.5
Project Construction Emissions Exceed Threshold	No

* Summation of individual ROG and NOx outputs.

Source: SLOAPCD 2012 CEQA Air Quality Handbook. Emission thresholds listed are for Quarterly Tier 1.

Construction emissions could still exceed the **daily** SLOAPCD thresholds for ROG+NOx despite mitigation, with a maximum estimated potential emissions of 265.46 pounds per day (lbs/day) of ROG+NOx compared to a SLOAPCD threshold of 137 lbs/day. As stated previously, these emissions are primarily from VOCs associated with the architectural coatings phase of the proposed project, which account for 237.11 lbs/day of the modeled maximum of 265.46 lbs/day of ROG+NOx. Since the lowest residential and non-residential VOC emitting architectural coatings of 50 grams per liter (g/L) and 100 g/L, respectively, are already proposed as mitigation measures, remaining mitigation measures to further lower maximum daily emissions are limited to extension of the time period over which the application of such coatings would take place. Currently, based on CalEEMod defaults, it is assumed that approximately 20 days would be required to apply the architectural coatings – extending the time period to 40 days would approximately halve maximum daily VOC (and hence ROG+NOx) emissions from the project. However, achieving the improvements shown in Tables 4.2-6 and

4.2-7 also requires limiting the application period to less than 3 hours per day. This limitation on the construction schedule is not considered feasible, as it would be an inefficient and insufficient time period to mobilize crews and achieve effective application of coatings. In addition, as shown in the Tables 4.2-6 and 4.2-7, improvements in VOC are somewhat offset by increased commuting and equipment emissions associated with the longer application period.

Table 4.2-6. Construction Emissions Comparison for 2017 by Year and Quarter [1]

	(tons/year)			*(tons/quarter)* [4]		
	ROG+NO_X	**DPM** [2]	**Fugitive PM_{10}** [3]	**ROG+NO_X**	**DPM** [2]	**Fugitive PM_{10}** [3]
Unmitigated						
Normal Schedule [5]	5.18	0.11	0.50	**2.59**	0.06	0.25
Extended Schedule [6]	5.20	0.12	0.52	**2.60**	0.06	0.26
% change	*0.30*	*6.93*	*3.03*	*0.30*	*6.93*	*3.03*
Quarterly Tier 1 Thresholds [7]				***2.50***	***0.13***	***2.50***
Mitigated						
Normal Schedule [5]	4.27	0.06	0.45	2.14	0.03	0.23
Extended Schedule [6]	4.29	0.06	0.47	2.14	0.03	0.23
% change	*0.37*	*0.16*	*3.37*	*0.37*	*0.16*	*3.37*
Quarterly Tier 1 Thresholds [7]				***2.50***	***0.13***	***2.50***

Note: **Bolded** values exceed quarterly Tier 1 Thresholds

[1] From CalEEMod Output Files (CalEEMod, Version 2013.2.2)

[2] Used exhaust $PM_{2.5}$.

[3] Used PM_{10} total.

[4] Quarterly emissions for 2017 calculated by dividing annual emissions by two quarters for both normal and extended schedule.

[5] Normal schedule assumes 20 days of architectural coating phase length and 6 hr/d equipment usage.

[6] Extended schedule assumes 44 days of architectural coating phase length and 2.7 hr/d equipment usage.

[7] From table 2-1 of the SLOAPCD 2012 CEQA Air Quality Handbook.

Table 4.2-7. Maximum Daily Construction Emissions Comparison for 2017 [1]

	Unmitigated (pounds/day)		**Mitigated (pounds/day)**	
	ROG+NOX	**DPM** [2]	**ROG+NOX**	**DPM** [2]
Normal Schedule [3]	**277.97**	1.83	**265.46**	1.06
Extended Schedule [4]	**148.45**	1.83	136.09	1.06
% change	-46.59	0.00	-48.73	0.00
Daily Threshold [5]	**137.00**	**7.00**	**137.00**	**7.00**

Note: **Bolded** values exceed quarterly Tier 1 Thresholds

[1] From CalEEMod Output Files (CalEEMod, Version 2013.2.2)

[2] Used exhaust $PM_{2.5}$.

[3] Normal schedule assumes 20 days of architectural coating phase length and 6 hr/d equipment usage.

[4] Extended schedule assumes 44 days of architectural coating phase length and 2.7 hr/d equipment usage.

[5] From table 2-1 of the SLOAPCD 2012 CEQA Air Quality Handbook.

Extending the application period to the extent modeled is not considered feasible. Mitigation is included below to extend the application period as practical. In reality, the application of architectural coatings will occur sporadically as individual buildings are completed, decreasing the number of sequential days of coating activities. However, impacts are considered *significant and unavoidable (Class I).*

AQ Impact 1	
The project will exceed daily and quarterly construction emission thresholds for ROG+NOx.	
Mitigation Measures	
AQ/mm-1	*Prior to the start of construction, verify through written documentation submitted to the SLOAPCD that the following standards are met:* *a. All construction equipment is equipped with Tier 3 or better engines, to the maximum extent feasible.* *b. Architectural Coatings specified meet VOC limits, including 50 g/L for Residential Interiors and Exteriors and 100 g/L for Non-residential Interiors and Exteriors.* *c. The schedule for Architectural Coatings application will be extended, limiting the daily coating activity.*
Residual Impacts	
Implementation of the mitigation above will not reduce construction-related ROG+NOx to levels below daily and quarterly thresholds (Table 4.2-6). Impacts are considered *significant and unavoidable (Class I).*	

Long-term Impacts (Operation)

Operational impacts include emissions from vehicle trips and energy usage associated with a project, as well as VOC emissions from materials such architectural coatings and household products. Operational emissions impacts were modeled and compared to the SLOAPCD Annual Thresholds (refer to Tables 4.2-8 and 4.2-9).

Table 4.2-8. Comparison of Unmitigated Operational Emission Impacts to SLOAPCD Annual Thresholds

	Annual Threshold (tons/year) [1]	
	ROG+NOx [2]	**Fugitive PM_{10} [3]**
Project Emissions [4]	5.49	0.87
Yearly Threshold	25	25
Yearly Operational Emissions Exceed Threshold?	No	No

[1] There is no annual threshold for DPM or CO.

[2] Summation of individual ROG and NOx outputs.

[3] Used total PM_{10} (aggregated exhaust and fugitive PM_{10} emissions).

[4] Used unmitigated winter CalEEMod emissions output. Summation of individual ROG and NOx outputs.

Source: SLOAPCD 2012 CEQA Air Quality Handbook.

Table 4.2-9. Comparison of Unmitigated Operational Emission Impacts to SLOAPCD Daily Thresholds

	Daily Threshold (lbs/day)			
	ROG+NOx [1]	**DPM [2]**	**Fugitive PM_{10} [3]**	**CO**
Project Emissions [4]	**30.60**	0.55	4.93	94.11
Daily Threshold	**25**	1.25	25	550
Daily Operational Emissions Exceed Threshold?	**Yes**	No	No	No

[1] Summation of individual ROG and NOx outputs.
[2] Used exhaust $PM_{2.5}$ emissions as proxy for DPM emissions.
[3] Used total PM_{10} (aggregated exhaust and fugitive PM_{10} emissions).
[4] Used unmitigated winter CalEEMod emissions output.
Source: SLOAPCD 2012 CEQA Air Quality Handbook.

Project operational emissions are predicted to exceed the daily APCD operational thresholds for ROG+NOx annual emissions even with proposed mitigation measures below (refer to Table 4.2-10).

Table 4.2-10. Comparison of Mitigated Operational Emission Impacts to SLOAPCD Daily Thresholds

	Daily Threshold (lbs/day)			
	ROG+NOx [1]	**DPM [2]**	**Fugitive PM_{10}, Dust [3]**	**CO**
Project Emissions [4]	**26.72**	0.55	4.93	94.11
Daily Threshold	**25**	1.25	25	550
Daily Operational Emissions Exceed Threshold?	**Yes**	No	No	No

1. Summation of individual ROG and NOx outputs.
2. Used exhaust $PM_{2.5}$ emissions as proxy for DPM emissions.
3. Used total PM_{10} (aggregated exhaust and fugitive PM_{10} emissions).
4. Used unmitigated winter CalEEMod emissions output.

Source: SLOAPCD 2012 CEQA Air Quality Handbook.

The majority of contributions to ROG+NOx are from re-application of low-VOC architectural coatings (once every 10 years), as well as vehicle emissions. Energy-related emissions contribute less than 2 lbs/day. The modeling assumed a 500-space parking structure to provide a worst-case scenario. The 300-space parking structure also possible under the project description would reduce both vehicle emissions and architectural coating emissions. Additional reductions could be obtained by reducing the size of the total project; however, this would increase emissions related to traffic, since fewer commute trips would be captured by the project. Where continued exceedances of stated thresholds occur, the SLOAPCD CEQA Handbook suggests implementation of at least eight mitigation measures from their list of

approved strategies (included in Appendix C). The project conforms to several measures on the list. The project:

- Improves pedestrian facilities and access for alternative transportation;
- Provides shade trees;
- Provides compact development;
- Building efficiency 20% above Title 24;
- Use of green building materials;
- High Efficiency heating and cooling and lighting systems along with other weatherization techniques;
- Water conservation; and,
- Bicycle parking.

Because quantifiable reductions associated with these factors cannot be made, impacts are considered *significant and unavoidable (Class I)*.

AQ Impact 2
The project will exceed daily operational emission thresholds for ROG+NOx.
Mitigation Measures
Implement AQ/mm-1b.
Residual Impacts
Implementation of the mitigation limiting VOC levels in architectural coatings will not reduce daily operational ROG+NOx emissions to a less than significant level (Table 4.2-8). The project includes several measures to reduce ROG + NOx. Impacts are considered *significant and unavoidable (Class I)*.

4.2.5.2 Expose Sensitive Receptors to Concentrations of Diesel Particulate Matter, Asbestos, Toxic Substance or Nuisance Dust

Short-term Impact (Construction)

The project site is within an existing, developed urban and campus environment, which includes residents, primary school children, and other sensitive receptors. The proximity of sensitive receptors poses special conditions which warrant additional mitigation, particularly addressing DPM associated with idling of heavy equipment during construction. Mitigation is included below to reduce impacts of diesel particulate emissions from heavy equipment to sensitive receptors to a less than significant level.

Grading and excavation will generate dust which may create nuisance conditions at sensitive receptors. The project includes the following mitigation measures from the Master Plan EIR to address this issue:

> *The University shall consult with the APCD prior to the project to determine the applicability of the following:*

A. *Employ measures to avoid the creation of dust and air pollution*

B. *Unpaved areas shall be wetted down, to eliminate dust formation, a minimum of twice a day or as needed to prevent air borne dust from leaving the site. When wind velocity exceeds 15 mph [miles per hour], the site shall be watered down more frequently*

C. *Store all volatile liquids, including fuels or solvents, in closed containers*

D. *No open burning of debris, lumber or other scrap will be permitted*

E. *Properly maintain equipment to reduce gaseous pollutant emissions*

F. *Exposed areas, new driveways and sidewalks shall be seeded, treated with soil binders, or paved as soon as possible*

G. *Cover stockpiles of soil, sand and other loose materials*

H. *Cover trucks hauling soil, debris or other loose materials*

I. *Sweep project area streets at least once daily*

J. *All PM_{10} mitigation measures required must be included on grading and building plans. In addition, the contractor or builder shall designate a person or persons to monitor the dust control program, and to order increased watering, when necessary, to prevent transport of dust off site. Their duties shall include holiday and weekend periods when work may not be progress. The name and telephone number of the monitor shall be provided to the APCD prior to the start of work at the site.*

K. *The Contractor shall maintain continuous control of dust resulting from construction operations. Particular care must be paid to door openings to prevent construction dust and debris from entering adjacent areas.*

L. *If airborne dust is leaving the site or becoming a nuisance, the Contractor shall water exposed areas.*

M. *Water down the project site, access routes, and lay down areas proactively to ensure dust does not become a nuisance.*

N. *The campus reserves the right to request watering of the site whenever dust complaints are received*

O. *During construction, the amount of disturbed area shall be minimized*

P. *Onsite vehicle speeds shall be reduced to 15 mph or less*

Q. *Exposed ground areas that are left exposed after project completion shall be sown with a fast-germinating native grass seed and watered until vegetation is established*

R. After clearing, grading, earth moving, or excavating is completed, the entire area of disturbed soil shall be treated immediately by watering or revegetating or spreading soil binders or jute netting to minimize dust generation until the area is paved or otherwise developed so that dust generation will be minimized

S. All roadways, driveways and sidewalks associated with construction activities shall be paved as soon as possible. In addition, building and other pads shall be laid as soon as possible after grading, unless seeding or soil binders are used.

Inclusion of the above mitigation measures will ensure nuisance dust is minimized at sensitive receptors. Impacts are considered less than significant and no additional mitigation is required.

The project site is not known to contain hazardous materials. Site soils have been tested and do not contain naturally-occurring asbestos (see documentation in Appendix C). The presence or absence of manmade asbestos containing materials is unknown, given the undocumented nature of fill material underlying the site. Mitigation is recommended to ensure such materials are properly identified, handled, and disposed of, if encountered.

AQ Impact 3	
The project may result in short term nuisance dust and exposure to diesel emissions at sensitive receptors.	
Mitigation Measures	
AQ/mm-2	*In order to minimize DPM impacts to sensitive receptors proximate to the project site, the following mitigation is proposed in conjunction with measures included in the project, and AQ/mm-1.* *a. Staging and queuing areas shall be located as distant as possible from sensitive receptors.* *b. Diesel idling greater than 5 minutes is not permitted.* *c. Signs specifying the idling limitations shall be installed on-site for the duration of construction.*
AQ/mm-3	*If previously undocumented pipe is encountered during excavation, a preliminary evaluation of the pipe composition will be performed. If transite pipe is suspected, a qualified handler will be retained to oversee preparation, removal, and disposal of the material in accordance with existing regulations.*
Residual Impacts	
Implementation of the mitigation above will ensure emissions of dust and DPM at sensitive receptors do not create nuisance conditions. Impacts are considered mitigated to a *less than significant level (Class II)*.	

Long-term Impact (Operation)

The project site is located more than 1,500 feet from U.S. Highway 101 (US 101). The project site is considered too distant for emissions associated with that roadway to pose a special risk to the residents on-site.

The project will not be a source of toxic air contaminants identified by the California Air Resources Board. Identified toxic air contaminants include substances such as benzene, vinyl

chloride, and diesel particulate matter. The project includes residential and parking facilities, which are not expected to be a significant source of such materials. Impacts are considered *less than significant (Class III)*.

4.2.5.3 Objectionable Odors

The residential component of the project will not be a source of objectionable odors over time. The parking structure replaces only 300 to 500 spaces of the existing 1,300-space surface parking lot; therefore, vehicle emissions at the parking lot will not constitute an increase in potential objectionable odors in the long-term. However, the configuration of the ancillary retail buildings around the parking structure, and the installation of the parking structure partially below grade, will create the potential for concentration of exhaust odors if ventilation systems are not properly designed. Mitigation is recommended to address this impact.

AQ Impact 4	
The operation of the parking structure may result in objectionable odors or emissions at the retail establishments proposed to wrap portions of the structure.	
Mitigation Measures	
AQ/mm-4	*Prior to final design a qualified consultant shall review the proposed parking structure design, including the ancillary buildings and determine that the natural or mechanical ventilation systems are designed so as to minimize exposure to vehicle generated air pollution and prevent the buildup of emissions in the area around the ancillary building.*
Residual Impacts	
Implementation of the mitigation above will ensure adequate ventilation is provided to prevent objectionable odors or buildup of exhaust at the retail establishments fronting the parking structure. Impacts are considered *less than significant after mitigation (Class II)*.	

4.2.5.4 Consistency with Plans

Plan consistency is addressed in Chapter 3 of this EIR. The project is in conformance with the land use and transportation management strategies of the most recently adopted Clean Air Plan and incorporates applicable mitigation from the Master Plan EIR. The project meets general Master Plan principles for increased on-campus housing, compact development, and sustainability in construction and operations. Impacts are considered *less than significant (Class III*).

4.2.5.5 Greenhouse Gas Emissions

In addition to the pollutants above, GHGs are required to be compared to the applicable thresholds. The amount of CO_2e in MT per service population per year is presented in Table 4.2-11.

Table 4.2-11. Comparison of Unmitigated CO_2e Emission Impacts to SLOAPCD Significance Thresholds

	CO_2e [1]
Project Emissions (Amortized Construction and Operational) [2]	2,715.66
MT CO_2e Annual Threshold	1,150
CO_2e Emissions Exceed Brightline Threshold?	**Yes**
MT CO_2e per Service Population per Year [3]	1.84
MT CO_2e per Service Population per Year Threshold d	4.9
CO_2e Emissions Exceed Service Population Threshold?	No

[1] Project emissions are the sum of the amortized construction CO_2e emissions and operational CO_2e emissions.
[2] CO_2e emissions include emissions of CO_2, CH_4, N_2O, HFC, CFC, and F_6S.
[3] The service population is assumed to be 1,475 people.
Source: SLOAPCD 2012 CEQA Air Quality Handbook.

While the sum of the project's amortized construction emissions plus operational-related GHG emissions are greater than 1,150 $MTCO_2e/yr$ and therefore are above the SLOAPCD significance threshold, the amount of CO_2e per service population per year is well below the SLOAPCD threshold of 4.9 $MTCO_2e/yr$. The amortized threshold is largely a reflection of the gross size of the building. The per service population threshold reflects efficiencies associated with increased density, such as reduced trips. The project could be spread out to reduce amortized emissions; however, this would increase the per capita value. Based on the population density of the residential development (i.e., student housing), the threshold based on CO_2e per service population is a more representative metric by which to evaluate the proposed project. However, the project remains in excess of the summary threshold and impacts under that threshold would be *significant and unavoidable (Class I)*.

The project modeling incorporates project assumptions, as outlined in Appendix C. These include increased building efficiency, reduced water use, compact development, and other features of the project. As mentioned previously, the amortized threshold is not reflective of the project's contributions in the areas of compact development, pedestrian and bicycle access, and trip reduction.

AQ Impact 5
The project would exceed the bright-line threshold for GHG emissions, but would be under the more representative service population threshold.
Mitigation Measures
No additional mitigation is available.
Residual Impacts
The project provides on-campus housing for existing students, and reduces total parking capacity at the University. These actions are in conformance with strategies to reduce GHG emissions. The project furthermore incorporates high-efficiency construction, and utilities systems. The project does not exceed service population thresholds; impacts related to amortized total emissions are modeled as significant and unavoidable, though this is not an

AQ Impact 5
accurate depiction of the project's overall impact. Impacts are considered *significant and unavoidable (Class I)*.

4.2.6 Cumulative Impacts

The cumulative study area for air quality impacts is the South Central Coast Air Basin (SCCAB). The project would contribute criteria pollutants during project construction and long-term operational use, including ozone precursors and particulate matter. No major projects are proposed in the immediate vicinity of the project site; however, a number of large development projects are currently under review by the County of San Luis Obispo (County), and cities within the county, including mixed-use, residential, commercial, and solar energy projects. These projects may be under construction simultaneously with the project and, in the long term, would be generating air emissions due to use of construction equipment, increased traffic trips, and energy use.

Depending on construction schedules and actual implementation of projects in the air basin, generation of fugitive dust and pollutant emissions during construction could result in short-term increases in air pollutants. Analysis conducted specifically for this project concluded that implementation of the proposed project would significantly contribute to cumulative long-term operational air quality impacts because it would exceed the daily ROG+NO_x threshold. GHG impacts, including those described above, all contribute cumulatively with those produced worldwide, to affect climate change. Compliance with identified air quality, energy efficiency, and water conservation mitigation measures would reduce the project's contribution to cumulative GHG emissions, and subsequent climate change, however, impacts would remain significant. Cumulative effects would be *significant and unavoidable (Class I).*

4.3 GEOLOGY AND SOILS

This section of the EIR discusses existing geologic and soils-related conditions at the project site and vicinity. The section also identifies potential geologic impacts that could result from the project, including the exposure of people or structures to unstable ground conditions, excessive erosion potential, or development on unsuitable or dangerous geologic or soil conditions.

The section is largely based on the following technical reports provided by Cal Poly, which are attached in Appendix C and Appendix D, respectively, and incorporated herein by reference:

- Cal Poly Student Housing South Project – Geologic Evaluation for Naturally Occurring Asbestos; Earth Systems Pacific, July 23, 2013

- Soils Engineering Report – Student Housing South, California Polytechnic State University, San Luis Obispo, California; Earth Systems Pacific, July 19, 2013

4.3.1 Existing Conditions

4.3.1.1 Regional Geologic Setting

The project site is located in the vicinity of the Santa Lucia Range of the Coast Ranges Geomorphic Province of California. The Coast Ranges lie between the Pacific Ocean and the Sacramento-San Joaquin Valley and trend northwesterly along the California coast for approximately 600 miles between Santa Maria and the Oregon border. The Santa Lucia Range extends approximately 105 miles between the cities of San Luis Obispo and Monterey.

The San Luis Obispo region is underlain primarily by Jurassic-era (approximately 180-million year-old) rocks of the Franciscan complex. The Franciscan complex is a mixture of igneous, metamorphic, and sedimentary rocks. Cretaceous and Tertiary sedimentary rocks in the Monterey and Pismo formations overlie the Franciscan complex in many parts of the San Luis Obispo area (City of San Luis Obispo 1994). The most distinctive morphological feature in the area is a chain of 14 Tertiary-era volcanic plugs (remnants of volcanos) that extend northwesterly from the city of San Luis Obispo to Morro Bay, terminating in the prominent visual landmark of Morro Rock. Other notable members of the volcanic chain include Hollister Peak, Bishop Peak, and Cerro San Luis Obispo, which is located approximately 1.5 miles southwest of the project site.

4.3.1.2 Seismic Setting

The project is located in a seismically active region that includes several active earthquake faults of local and regional significance. An active fault is generally defined as a fault that has a historic seismic record or displaces Holocene-age deposits (11,000 years and younger). Active faults with the greatest potential to affect the project area include the San Andreas, Los Osos, Nacimiento, Rinconada, and Hosgri-San Simeon Faults.

The nearest active fault is the Los Osos Fault, which extends adjacent to the southwest edge of the city. The fault's main strand lies near the intersection of Los Osos Valley Road and Foothill Boulevard, approximately 4 miles west of the site. The fault is identified under the Alquist-Priolo Fault Hazards Act, which was enacted to help identify and map active faults and inform the process of building structures for human occupancy in the vicinity of mapped faults. The Rinconada Fault trends northwest to southeast approximately 20 miles east of the project site. The Nacimiento Fault is located approximately 25 miles northwest of San Luis Obispo and the Hosgri-San Simeon Fault is located approximately 15 miles offshore, about 30 miles west of the

city. The San Andreas Fault is considered to be the most likely source of a future major earthquake in California, with potential seismic events of up to a magnitude of 8.5 on the Richter scale. An earthquake of this size would result in as much as 30 feet of ground displacement (City of San Luis Obispo 1994). It is located approximately 40 miles east of Cal Poly and poses the primary seismic risk for the San Luis Obispo area.

4.3.1.3 Project Site Setting

The approximately 12-acre project site currently consists of a large, asphalt concrete parking area with landscaped areas located around the perimeter of the lot. The project site is largely flat, although the west and southwest edges of the project site descend at an approximately 5-foot slope to Slack Street and Pacheco Way. Across Grand Avenue to the east, there are two significant drainages that flow out of the hills and through existing residential development southeast of the project site. These drainages have been re-routed around the parking area via developed infrastructure.

The project site is located within an area of moderate landslide potential based on the City of San Luis Obispo's Ground Shaking and Landslide Hazards Map (City of San Luis Obispo 2004).

Soil borings taken at the site to assess subsurface conditions revealed the presence of artificial fill material at depths ranging from 3.5 to 14 feet in seven of the eight borehole locations across the project site. The fill material was comprised of sandy lean clay, clayey sand, and clayey sand with gravel. Conditions in the fill material ranged from loose to medium dense or stiff, and the fill was underlain by alluvium in most of the borings (Earth Systems Pacific 2013). It is expected that the fill material was placed at the site at the time of the original grading of the parking lot over 50 years ago. At that time, the standards for the placement and compaction of fill were not as stringent as current regulations, and there is no documentation regarding the type of fill material placed at the site or the compaction methods used when the parking lot was developed. Therefore, the on-site fill material is considered "undocumented".

Undocumented fill should not be relied upon for support of foundations or other improvements in its current condition because at the time of its placement, standards for compaction and construction were not as stringent as they are today.

Soil sampling conducted at the project site also revealed the presence of sandstone, shale, and claystone bedrock in all of the borings at depths ranging between 6 to 18.5 feet. The bedrock was typically weathered and fractured, and its condition was logged as varying between soft to hard. However, the descriptions of bedrock span a much wider range of density and strength characteristics than soil, and are relative to other bedrock strata. For example, fractured and weathered bedrock may be described as "soft," yet it will be considerably harder than almost any type of soil. Conversely, a clay soil may be described as "stiff," but it will not be nearly as hard as even "soft" bedrock.

Therefore, the presence of soil, undocumented fill, and bedrock across the site can create the potential for differential settlement, a condition that occurs when development spans areas with different compression characteristics. The clay soils and fill at the site are far more compressible than the bedrock, and particular engineering consideration would be necessary to address this condition.

Soils

Native material at the site underlying the undocumented fill likely consists of native soils as identified in the U.S. Department of Agriculture (USDA) Natural Resource Conservation Service's (NRCS), Web Soil Survey. The NRCS Web Soil Survey identifies over 90 percent of the project site (approximately 11 acres) as within the Los Osos-Diablo complex soil unit, 9 to 15 percent slopes. A small area in the southeast corner of the site adjacent to the Grand Avenue/Slack Street intersection (approximately 0.8 acre and 6% of the project site) contains Diablo and Cibo clays, 9 to 15 percent slopes. The characteristics of these soils as described in the USDA Soil Conservation Service's *Soil Survey of San Luis Obispo County, California (Coastal Part)* are provided below.

- 163 – The Los Osos-Diablo complex unit, 9 to 15 percent slopes. These rolling soils are on foothills and mountain ridgetops at elevations ranging between 200 and 1,500 feet. The complex is comprised of about 35% Los Osos soil and 30% Diablo soil. Diablo soil differs from Los Osos soils by being deep and having a clay texture throughout. The complex also contains small components of Cibo clay, Lodo clay loam, and Millsap loam. The Los Osos soil is moderately deep and well drained. Permeability is slow and the available water capacity is low or moderate. Surface runoff is medium, and the hazard of water erosion is moderate. The Los Osos soils have high shrink-swell potential in the subsoil. The Diablo soil is deep and well drained. Permeability is slow and the available water capacity is moderate to very high. Surface runoff if medium and the hazard of water erosion is moderate. Diablo soil has high shrink-swell potential.

- 130 – Diablo and Cibo clays, 9 to 15 percent slopes. These strongly sloping soils are on low lying foothills at elevations ranging between 200 to 600 feet. Diablo soil differs from Cibo soil by being deep, having a darker surface layer, being calcareous in the underlying material, and overlying softer, weathered rock. The Diablo soil is deep and well drained. Permeability is slow and the available water capacity is moderate to very high. Surface runoff if medium and water erosion hazard is moderate. Diablo soil has high shrink-swell potential. The Cibo soil is moderately deep and well drained. Permeability is slow and the available water capacity is very low to moderate. Surface runoff is medium and the water erosion hazard is moderate. Cibo soil has a high shrink-swell potential.

The Los Osos-Diablo complex and Diablo and Cibo clay soils are becoming increasingly important for urban development. The main limitations to development generally associated with these soils include parameters such as slope, high shrink-swell potential, low strength, and slow permeability. The soil can be hard to compact because of the high clay content. Special design considerations are often needed for urban development and most other engineering practices, however, foundation and footing designs are generally able to offset these limitations (USDA Soil Conservation Service 1984).

As described above, the project site has undergone previous grading and development which has altered the geologic conditions of the site. While native sub-surface material existing at the site is likely comprised of these soils, previous development activities including the placement of fill and the presence of bedrock at the project location present certain soil engineering challenges as discussed above.

4.3.2 Regulatory Setting

4.3.2.1 Federal Regulations

The Alquist-Priolo Earthquake Fault Zoning Act was developed by the State to regulate development near active faults and mitigate the surface fault rupture potential and other hazards. The Act identifies active earthquake fault zones and restricts building habitable structures over known active or potentially active faults.

4.3.2.2 State and Local Regulations

The development and maintenance of all buildings owned by the State of California, including those on the Cal Poly campus or other buildings owned by the CSU Trustees and/or the Regents of the University of California, must comply with the building standards approved and codified by the California Building Standards Commission (BSC). Established in 1953 by the California Building Standards Law, the BSC is an independent commission within the State and Consumer Services Agency responsible for publishing approved building standards in a state building code. The BSC reviews and approves the building codes proposed and adopted by various state agencies, and codifies and publishes them in one state building standards code in Title 24 of the California Code of Regulations. Code compliance determinations at the CSU are the ultimate responsibility of the State Architect.

In addition to meeting or exceeding existing building code requirements and practices, the project would also be subject to the standard practices of the Structural Engineers Association of California (SEAOC). The goal of the SEAOC is to establish high professional standards to advance the state-of-the-art and the state-of-the-practice of structural engineering and to provide the public with safe and economical buildings.

4.3.3 Thresholds of Significance

The following thresholds of significance are identified in the CEQA checklist developed by Cal Poly and are based on the criteria set forth in Appendix G of the CEQA Guidelines. According to those criteria, a project would result in a significant geology- or soils-related impact if it would:

1. Expose people or structures to potential substantial adverse effects, including the risk of loss, injury, or death involving:

    a. Rupture of a known earthquake fault, as delineated in 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.

    b. Strong seismic ground shaking.

    c. Seismic-related ground failure, including liquefaction.

    d. Landslides.

2. Result in substantial soil erosion or loss of topsoil.

3. Be located on a geologic unit or soil that is unstable, or that would become unstable because of the project, and potentially result in on- or off-site landslide, lateral spreading, subsidence, liquefaction or collapse.

4. 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.

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

4.3.4 Impact Assessment and Methodology

Potential geologic and soils impacts were evaluated based upon review of project plans, a review of the engineering geologic and geotechnical engineering reports prepared by the University's consultants, and field review of the project site.

4.3.5 Project-specific Impacts and Mitigation Measures

4.3.5.1 Seismic-Related Effects

Fault Rupture

Seismic activity is common in California, including the San Luis Obispo area. The Los Osos Fault, located approximately 4 miles southwest of the site, and the San Andreas Fault, located approximately 40 miles east of the project site, are identified Alquist-Priolo earthquake faults and pose risks associated with surface rupture during a seismic event. However, the delineated fault zones associated with these faults do not encompass any portion of the project site and no faults have been identified on or near the site which would indicate a significant risk of impacts due to fault rupture.

Therefore, impacts project-related impacts associated with fault rupture would be *less than significant (Class III)*.

Seismic Ground Shaking

The Los Osos and San Andreas Faults, along with other local and regional fault systems, pose risks to the project associated with seismic ground shaking in the event of an earthquake. Based on studies prepared for the Mustang Stadium EIR (2004), reasonable assumptions indicate that the most significant event for design of structures in the project area is a 6.8-magnitude event along the Los Osos Fault. Seismic hazards are considered to be high over the expected life of the project at the proposed location.

Project design is required to meet or exceed existing building code requirements and standard practices of the SEAOC. Mitigation of seismic hazards would be predominantly addressed through proper structural design in accordance with applicable building codes related to earthquake loads at the time of final plan approval.

A Soils Engineering Report prepared for the project has indicated that the site is suitable, from a soils engineering standpoint, for the proposed project provided various recommendations are implemented in the design and construction of the proposed structures. The recommendations in the report include measures such as: the removal of all existing undocumented fill in building areas; examination of underlying soils by the soils engineer prior to the placement of any new fill material; over-excavation, scarification, moisture-conditioning, and re-compaction of areas to provide a minimum of 18 inches below bottom-of-slab elevation (12 inches where bedrock is present) to consist exclusively of non-expansive soils; a requirement that each individual building be founded on either footings in bedrock or in compacted fill, but not a combination of

the two; consultation with a soils engineer during design phase and construction; as well as a number of specific requirements related to site preparation, grading activities, utility trenches, foundations, interior slabs-on-grade and exterior flatwork, retaining walls, hot mix asphalt pavement sections, and drainage and maintenance facilities. The full report is provided in Appendix D for reference.

This geotechnical report was developed based on preliminary design concepts that will continue to be further refined in the design and project planning process. The Soils Engineering Report provides a preliminary evaluation of geologic hazards at the project site and a discussion of the types of measures that would need to be implemented during project development to avoid geologic hazards. A final detailed geotechnical report would be required prior to final plan approval and Cal Poly and its contractors would be required to comply with all recommendations made in the final geotechnical study prepared for the project. Through adherence to existing state law requirements, codes and practices, and implementation of the measures recommended in the final geotechnical report prepared for the project, potential impacts associated with seismic ground shaking would be reduced to less than significant levels.

GS Impact 1	
The proposed structures would be exposed to the effects of unstable earth conditions during a ground-shaking event, potentially exposing people and structures to risk of injury, loss or death.	
Mitigation Measures	
GS/mm-1	*Prior to final plan approval, Cal Poly shall incorporate into the project design and implement all recommendations identified in the* Soils Engineering Report *(Earth Systems Pacific 2013), including any subsequent revisions or modifications, and/or all recommendations included in the final geotechnical report prepared for the project. All recommendations shall be shown on final plans and/or included as project specifications.*
Residual Impacts	
In addition to compliance with existing building regulations, including applicable seismic and lateral loads, Cal Poly would comply with all recommendations identified in the project-specific geotechnical report prepared for the project. Therefore, potential impacts associated with ground-shaking would be *less than significant with mitigation (Class II)*.	

Seismic Ground Failure / Liquefaction

Liquefaction is amplified ground shaking or instability associated with unconsolidated alluvium. The Soils Engineering Report prepared for the project found a negligible risk of liquefaction, assuming removal and re-compaction of undocumented fill on-site as recommended in the report. Compliance with the recommendations of the *Soils Engineering Report* and standard requirements of the California Building Code (CBC) and SEAOC would reduce potential effects related to liquefaction to less than significant levels.

GS Impact 2
The proposed project would expose people and structures to the effects of liquefaction during a ground-shaking event.

GS Impact 2
Mitigation Measures
Implement GS/mm-1.
Residual Impacts
In addition to compliance with existing building regulations, Cal Poly would comply with recommendations identified in the final geotechnical report, including removal of all existing fill in building areas and replacement and re-compaction of fill, as necessary, consistent with current standards and regulations. Therefore, potential impacts associated with liquefaction would be *less than significant with mitigation (Class II)*.

Landslides

The Soils Engineering Report (Earth Systems Pacific 2013) references a 1997 Geotechnical Report prepared for Cal Poly for the Grand Avenue Parking Structure. That report identified a potential landslide formation east of Grand Avenue. The Parking Structure I EIR (1997) noted that excavation and other ground-disturbing activities associated with development of a project alternative along Grand Avenue could destabilize the suspected landslide formation. Ultimately, mitigation was recommended for further study and the alternative was not pursued.

The Soils Engineering Report included an evaluation of previous literature and site conditions to determine presence or absence of the landslide. No specific landslide hazards were identified which would affect development of the site. The geotechnical study includes several options for stabilization of cut and fill slopes, where necessary. Therefore, with implementation of the measures recommended in the report, impacts would be less than significant.

GS Impact 3
Project development could expose people or structures to risks associated with landslides at slopes along the perimeter of and adjacent to the project site.
Mitigation Measures
Implement GS/mm-1.
Residual Impacts
In addition to compliance with existing building regulations, Cal Poly would comply with recommendations identified in the project's final geotechnical report, including options for slope stabilization through, i.e., excavation into benches and/or keyways. Therefore, potential impacts associated with landslides would be *less than significant with mitigation (Class II)*.

4.3.5.2 Soil Erosion or Loss of Topsoil

Topsoil is the upper, outermost layer of soil, usually the top 2 to 8 inches, which generally contains the highest concentration of organic matter and is where plants generally concentrate their roots and obtain most of their nutrients. The depth of topsoil can be measured as the depth from the surface to the first densely packed soil layer known as subsoil.

Short-term construction activities would require grading and removal of soil and landscaping at the project site. All 12 acres of the project site would be disturbed and the project assumes excavation of approximately 5 feet of soil across the entire site, or 2.6 million cubic feet (96,800 cubic yards) of material. Loss of topsoil would be minimal as a result of the previous grading, fill, and development at the project site. However, exposed soils would be subject to wind and water erosion during the construction period. This includes approximately 3,700 linear feet of trenching offsite which may be required to install utilities infrastructure.

Because over 1 acre of ground disturbance is proposed, the SWRCB's General Permit for Discharges of Storm Water Associated with Construction Activity (Construction General Permit Order 2009-0009-DWQ) requires Cal Poly to prepare a Storm Water Pollution Prevention Plan (SWPPP) for review and approval by the Central Coast RWQCB. The SWPPP would include information related to the existing and proposed development, stormwater collection and discharge points, and general topography and drainage patterns across the site before and after construction. The SWPPP would list best management practices (BMPs) that would be implemented to prevent stormwater runoff and applicable monitoring programs to be implemented in the event there is a failure of BMPs.

The project will include entirely new storm water infrastructure to support proposed facilities and layout. The geotechnical report prepared for the project also includes measures to prevent erosion on- and off-site, including requirements for finished grades to direct surface runoff away from foundations, design of discharges to be non-erosive, installation of drains in areas that would otherwise not drain freely, stabilization of erodible soils during and following construction activities by establishing and maintaining vegetation, and long-term maintenance of drainage facilities. Compliance with the SWPPP and the recommendations of the geotechnical report would reduce potential impacts associated with soil erosion to less than significant levels.

GS Impact 4	
Short-term grading and excavation required for construction of the project would expose substantial amounts of soil to risk of wind and water erosion.	
Mitigation Measures	
GS/mm-2	*Prior to final plan approval, plans shall demonstrate implementation of standard construction-related erosion control measures that identify how disturbed soils will be stabilized to prevent wind and water erosion during construction and immediately following construction until revegetation activities are initiated, including, i.e., through the use of temporary soil stabilizers, timing of construction activities to avoid the rainy season (if feasible), use of water for dust control, appropriate siting or hydro-seeding of stockpiles, limits on the amount and length of time material can be stockpiled onsite prior to removal and disposal or reuse elsewhere on campus, and implementation of all measures identified in the all BMPs identified in the RWQCB-approved SWPPP. All erosion control measures shall be listed on final grading plans and proper implementation shall be confirmed by the environmental compliance monitor throughout project construction.*
Implement GS/mm-1.	
Residual Impacts	
Cal Poly would prepare a SWPPP and implement standard BMPs to minimize potential soil erosion during construction activities. Cal Poly would also comply with recommendations identified in the project-specific geotechnical report, including a set of recommendations dealing specifically with onsite drainage and erosion risks. Therefore, with implementation of these measures, potential impacts related to soil erosion would be *less than*	

GS Impact 4
significant with mitigation (Class II).

4.3.5.3 Unstable Geologic Conditions

The project site poses a moderate risk of unstable geologic conditions due to the undocumented nature of the existing fill material that exists within a majority of the project area, potential for differential settlement, and characteristics of underlying native soil units. Particular consideration is needed to avoid potential impacts associated with these conditions, and special design considerations in proposed foundations and footings would need to be implemented to avoid risks of structural damage or collapse.

The geotechnical report prepared for the project concluded that the site would be suitable for the campus housing and parking structures proposed provided the recommendations provided in the report are followed. The geotechnical analysis concluded that foundations for any individual proposed structure could bear in re-compacted fill or in bedrock, but not a combination of the two (with the exception of the parking structure, which is recommended to bear in bedrock). Through implementation of the measures recommended in the geotechnical report, including potentially necessary over-excavation of cut areas and replacement of the removed soils as structural fill, the proposed structures would be engineered to meet all applicable standards necessary to ensure geologic stability, and the project would not be expected to result in on- or off-site landslides, lateral spreading, subsidence, liquefaction, or collapse. Therefore, impacts would be mitigated to a less than significant level.

GS Impact 5
The project would be located in a potentially unstable geologic unit or soil, exposing people and structures to unstable site conditions.
Mitigation Measures
Implement GS/mm-1.
Residual Impacts
Compliance with the recommendations of the geotechnical report will ensure the site plan, grading plan, and other project plan details address site stability. Therefore, with implementation of these measures, potential impacts related to geologic and/or soil stability would be *less than significant with mitigation (Class II)*.

4.3.5.4 Expansive Soils

The expansion potential of the soils on-site is considered moderate based on expansion index tests that yielded values of 63 and 77. Expansive soils tend to swell with increases in soil moisture and shrink when moisture decreases, which can create stress over seasonal cycles and damage foundations and slabs-on-grade if precautionary measures are not incorporated into the design and construction operations.

Measures recommended in the geotechnical report to address the potential for expansion include use of deeper footings, use of a layer of non-expansive material beneath slabs, and

preserving or augmenting the soil moisture over the life of the project. These recommendations reflect methods that have been utilized in this geographical area in the past to address issues associated with development on expansive soils. Compliance with the recommendations of the geotechnical study will ensure potential impacts are mitigated to a less than significant level.

GS Impact 6
The project would be located in an area of moderately expansive soils, creating a risk of foundational and structural damage.
Mitigation Measures
Implement GS/mm-1.
Residual Impacts
Compliance with the recommendations of the geotechnical report will ensure the site plan, grading plan, and other project plan details address expansive soil issues. Therefore, with implementation of these measures, potential impacts related to soil expansion would be *less than significant with mitigation (Class II)*.

4.3.5.5 Septic Tanks

The project will be supported by a developed wastewater system that would connect to existing infrastructure in adjacent developed areas. No alternative systems, such as septic systems, are proposed. Therefore, no impact would result.

4.3.5.6 Plan Consistency

The Master Plan does not contain policies specific to geotechnical issues; impacts related to plan consistency are considered *less than significant (Class III*).

4.3.6 Cumulative Impacts

Campus buildout and implementation of the Master Plan would generally increase development on campus and in the project vicinity. No projects requiring grading or construction would occur in the immediate vicinity of the project, and no existing adverse geologic or drainage conditions are present on or adjacent to the project site.

Additional development, including the proposed project, would increase the number of people and structures exposed to a variety of geologic and soils hazards within the campus, including ground shaking and unstable geologic units. However, potential impacts related to geologic, soils, and seismic hazards are predominantly site-specific in nature, and mitigation measures are typically applied to each project to minimize the potential for significant geologic impacts through implementation of proper design and engineering standards. All Cal Poly development projects are required to comply with the stringent State regulations regarding design and construction activities; therefore, implementation of mitigation measures identified above and compliance with existing regulations would mitigate project-specific impacts to *less than significant with mitigation (Class II)*. No cumulative impacts related to these issues would occur as a result of additional development within the campus or city of San Luis Obispo adjacent to the project site and no additional measures are necessary. Therefore, cumulative impacts would be *less than significant (Class III)*.

4.4 NOISE

This section of the EIR discusses existing ambient noise conditions and the construction and operational noise resulting from the project. The effects of noise are considered in two ways: how the proposed project may increase existing noise levels and affect surrounding land uses; and how the proposed land use may be affected by noise from existing and surrounding land uses. This section of the EIR addresses: the existing noise environment of the project area; federal, state, and local noise guidelines and policies; potential impacts resulting from implementing the proposed project; and potential noise impacts that would be encountered in the area.

Unless otherwise stated, all sound levels reported in this analysis are A-weighted sound pressure levels in decibels (dB). A-weighting de-emphasizes the very low and very high frequencies of sound in a manner similar to the human ear. Most community noise standards utilize A-weighted sound levels, as they correlate well with public reaction to noise.

4.4.1 Existing Conditions

4.4.1.1 Background

Noise is generally defined as unwanted sound. Noise is considered a health problem, which causes stress and annoyance. Documented effects of excessive noise include interruption of sleep, outdoor activity, and concentration. Ongoing exposure to excessive noise can cause changes in behavior, reduction in property values, and poor health related to stress.

Noise sources and sound intensities can vary significantly over an urban area. Motor vehicles are typically the primary noise source in California cities. Variables that affect traffic noise include traffic volumes, proximity to the noise source, time of day, speed, and pavement condition. Topography also plays a significant role in the perception of traffic related noise emissions. Road segments that are cut below or significantly elevated above the grade at which noise is measured will generally produce a quieter noise environment at a given receiver site.

Sites that have abundant vegetation and an undulating profile (soft sites) will absorb sound pressure waves more fully than an area that is predominantly asphalt or concrete (hard site). Under normal conditions on hard sites, noise will attenuate (drop-off) at an approximate rate of 3.0 dBA (A-weighted decibel [dB]) per doubling of distance (DD) for a line source (i.e., traffic sources) and about 6.0 dBA/DD for a point (stationary) source.

Certain land uses are considered more sensitive to ambient noise levels than others. In general, noise-sensitive land uses include, but are not limited to, the following:

- Residential areas;
- Schools-preschool to secondary, college; specialized education and training;
- Health care services (hospital);
- Nursing and personal care;
- Churches;
- Public assembly and entertainment;
- Libraries and museums;
- Hotels and motels;
- Outdoor sports and recreation; and,
- Offices.

Existing noise sensitive uses within, adjacent to, and in the vicinity of the project site include residential and other campus development, private residences, and the former Pacheco Elementary School.

4.4.1.2 Existing Noise Environment

Stationary Sources

There are no major existing stationary sources of noise in the vicinity of the project site. Surrounding land uses include the former Pacheco Elementary School, which is currently leased to several private primary education programs, single-family residences, existing campus housing complexes, track and field areas, and other development within the campus instructional core (offices, restaurant, Performing Arts Center).

Transportation Sources

The project site currently operates as a surface parking lot, with approximately 1,324 parking spaces. The project site is proximate to the Grand Avenue parking structure, with approximately 618 parking spaces. The operation of these structures (i.e., access and movement of vehicles), contributes to the existing ambient noise environment on site.

Existing ambient noise levels on site were determined based on measurements performed along Grand Avenue and Slack Street in October 2013 by Veneklasen Associates (VA). VA installed two Bruel & Kjaer Type 2260 sound level meters at Grand Avenue and Slack Street. Additional short-term measurements were performed further south on the site, adjacent to both Grand Avenue and Slack Street. Figure 4.4-1 shows measurement locations. Table 4.4-1 summarizes measured hourly sound levels and calculated CNEL values for the loudest day of the survey.

Table 4.4-1. Measured Sound Levels

Measurement Start Time	Exterior Sound Level (LAeq)	
	Grand Avenue	Slack Street
12:15 pm	65	56
1:15 pm	65	--
2:15 pm	64	--
3:15 pm	65	60

VA calculated the community noise level (CNEL) at 67 along Grand Avenue. This sound level is calculated for a location at the roadway, nearer than any of the proposed buildings. VA also modeled noise levels at building exteriors under both current and future conditions. Future conditions included a 10% increase in local traffic. A 10% increase in traffic does not result in measurable increases in CNEL values.

The Union Pacific Railroad line runs parallel to California Boulevard, approximately 3,000 feet east of the project site. The 68 dB contour for this source has been estimated at 100 feet.[1] Due to distance, noise from this source is not discernible from other background noise at the project site.

The primary source of noise in the vicinity is traffic along Grand Avenue and Slack Street, and operation of the parking lot and existing G-1 structure on and near the site.

[1] CSU Office of the Chancellor. 2004. Final EIR, Mustang Stadium Renovation and Expansion and Parking Structure II Project. SCH No. 2004061007

Figure 4.4-1. Noise Measurement Locations

Other Sources

Contributors to the existing noise environment include generalized crowd noise on campus, bus traffic, and amplified sound at the outdoor athletic fields east of the site. The site is also used to stage special events, including fire department exercises, drilling for the Grizzly Academy, tours, and construction vehicle parking as needed. All of these sources can be characterized as sporadic noise events of limited duration. Noise associated with special events can vary widely in terms of intensity of noise level and perceived nuisance.

Noise Management on Campus

Several entities within the University have responsibility for noise management; including, but not limited to:

- *University (Campus) Police.* Campus police are responsible for response to noise events, management of special events, including parking, traffic management, and event planning.

- *Housing Services.* The housing department is responsible for the daily operation of the various housing complexes throughout the University. Housing staff include residential assistants (RAs) and other staff who live in University residential halls and set guidelines for residents. Residents sign a Housing License, which includes agreement to comply with the "University Housing Resident Handbook" and the University's Student Code of Conduct. Both the handbook and the code of conduct include rights to sleep and study, and outline a system of Incident Reporting for students who are in violation of guidelines and standards. Housing Regulations include 19.b:

  > *Noise. Because the on-campus housing facilities are student communities, it is important to acknowledge and respect the rights and needs of others. This is especially true in reference to sound. All Cal Poly residential communities operate under continuous 24-hour Courtesy Hours, meaning that regardless of the time of day, any amplified sound or activity loud enough to be heard outside a room should be curtailed. All Licensees agree to observe courtesy hours as stated in the "University Housing Resident Handbook." THE RIGHT TO QUIET SUPERSEDES THE RIGHT TO MAKE NOISE.*

- *General Policy.* Section 141.3.2.1 of the "Campus Administrative Policies" states that:

  > *Outdoor events and activities that involve amplified music or speech are limited to the hours of: 7:00 a.m. to 10:00 p.m., Monday through Sunday, and University scheduling protocols must be followed (see sections 144.4 and 141.3.2.2)*
  >
  > *Outdoor events and activities that do not require use of amplified sound (for speech or music) may be held between 7:00 a.m. and midnight, Monday through Sunday. Use of the University's scheduling protocols is encouraged, to facilitate coordination with other events and among potential campus service providers.*
  >
  > *Regardless of the time they are held, events and activities must be conducted in a manner consistent with Section 141.3.1 (General Limitations) and in conformity with any additional guidelines pertinent to a particular venue.*

- *General Policy.* Section 141.3.1 of the "Campus Administrative Policies" states that:

> *"All campus events and activities shall be conducted consistent with Federal and State law, with existing University policies, with the orderly conduct of University business, with preservation of the campus learning environment, with the preservation of public safety, with maintenance of University property and with the free flow of pedestrian and vehicular traffic. Entrances to campus facilities shall not be obstructed. No individual or group shall abridge, halt or disrupt the right of others to present their views. In addition, plans for outdoor events and activities should address potential impacts on residential communities, on and off campus. [emphasis added]"*

4.4.2 Regulatory Setting

4.4.2.1 Federal and State Regulations

Congressional: The Federal Noise Control Act of 1972

This law states that controlling noise protects the health and welfare of the Nation's population. It recognizes that transportation vehicles, machinery, and appliances are noise sources, and responsibility for controlling these noise sources rests with state and local governments. Moreover, the federal government will coordinate and adopt standards for inter-state commerce projects (e.g., airports).

Federal Highway Administration: 23 CFR 772

Federal code provides uniform procedures to evaluate highway noise and implement abatement measures. Interpretation of what constitutes 'substantial noise' is left to the states.

California Government Code

The State General Plan Guidelines requires that local governments identify major noise sources and areas containing noise-sensitive land uses. Noise must be quantified by preparing generalized noise exposure contours for current and projected conditions. Contours may be prepared in terms of either the Community Noise Equivalent Level (CNEL) or day-night average sound level (Ldn).

State of California Building Code

Per section 1207.11 of the California Building Code (CBC), interior noise levels in habitable rooms shall not exceed 45 dB when measured as a Community Noise Equivalent Level (CNEL) or Day-Night Level (LDN). Habitable rooms include rooms used for living, sleeping, eating, or cooking. This applies to residential occupancy only. Additionally, where the exterior sound level exceeds 60 CNEL or LDN, mechanical ventilation is required (VK 2013).

State of California Green Building Code

Section 5.507.4.2 of the 2010 California Green Building Code, July 2012 revision, stipulates that for buildings exposed to a noise level of 65 dB or more when measured as a 1-hour Equivalent Sound Level (Leq), the building façade, including walls, windows, and roofs, shall provide enough sound insulation so that the interior sound level from exterior sources does not exceed 50 dBA during any hour of operation. This applies to non-residential occupancy only, and does not apply to areas that are not regularly occupied. Therefore, the parking structure is exempt (VK 2013).

4.4.2.2 Local Regulations

The University does not maintain its own standards for exposure to noise. Both the County and City of San Luis Obispo have established standards for exterior and interior exposure to noise for different land use categories, including residences. These standards are similar, and are based on generally accepted thresholds for noise tolerance associated with various land uses. The City of San Luis Obispo uses a standard of 55 dBA for daytime exterior noise levels for residential uses, the County sets a standard of 60 dBA. Nuisance noise is addressed on campus by campus police, and in the vicinity of campus through the City of San Luis Obispo police department. The City's municipal code [Chapter 9.12 and 9.13] sets forth standards for nuisance noise and remedies for the public.

Chapter 9.12 also sets guidelines for construction noise. The City's regulations generally restrict construction noise to between the hours of 7:00 a.m. and 7:00 p.m., and suggest efforts to reduce construction noise levels to 85 dBA (A-weighted decibels) in areas of mixed residential and commercial use where feasible. Construction activities are otherwise generally exempted from exterior noise standards set forth in other sections of the Code. The University is not required to comply with the City's regulations; however, the University attempts to maintain a "good-neighbor" policy where possible.

4.4.3 Thresholds of Significance

The thresholds of significance are based on the criteria set forth in Appendix G of the CEQA Guidelines. According to those criteria, a project would result in a significant noise impact if it would:

1. Expose persons to or generate noise levels in excess of standards established in the local general plan or noise ordinance, or applicable standards of other agencies

2. Expose persons to or generate excessive groundborne vibration or groundborne noise

3. Result in a substantial permanent increase in ambient noise levels in the project vicinity above levels existing without the project

4. Result in a temporary or periodic increase in ambient noise levels in the project vicinity above levels existing without the project

The CEQA Guidelines include thresholds related to proximity to airports. The NOP Initial Study identified no impacts related to noise and proximity to airports this issue is not addressed further in this section.

General guidelines for determining community noise impacts typically include:

- A 3-dB change is barely perceptible, and is the minimum most people will notice in most environments.

- A 5-dB change is a readily perceptible increase or decrease in sound level.

- A 10-dB increase in sound level is perceived as an approximate doubling of the loudness of the sound and represents a substantial change in loudness.

For the purposes of this analysis, a long-term change in noise level is considered significant if it exceeds 3 dB.

4.4.4 Impact Assessment and Methodology

Potential noise impacts were evaluated based upon review of project plans, field review of the project site, and review of prior campus environmental documents. The impact assessment also incorporates by reference the Acoustical Study prepared for the project by Veneklasen Associates (2013). The entire Acoustical Study is included as Appendix E.

4.4.5 Project-specific Impacts and Mitigation Measures

4.4.5.1 Exposure to or Generation of Noise

Short Term (Temporary)

Construction-related noise is a short-term, periodic, and temporary impact of the project. Earthmoving, materials handling, stationary equipment, and construction vehicles generate noise during clearing, excavation, grading, structure, and utility construction. Completion of the project will take approximately 31 months. Noise levels will vary during that time depending on the type of work and equipment required. Typical construction equipment noise levels are provided in Table 4.4-2.

Table 4.4-2. Typical Construction Equipment Noise Levels

Type of Equipment	Maximum Level, dB (100 ft)
Scrapers	82
Bulldozers	81
Backhoe	79
Pneumatic Tools	79
Jackhammers	84-94

Source: Mustang Stadium EIR, 2004

Actual noise levels at receiving sites such as residences and schools (within 100 to 150 feet of the site) will vary based on the type and volume of equipment present and operating on the site at any one time, as well as the location of activity within the 12-acre site. During construction activity, noise would potentially impact sensitive land uses, including schools and residences, in the vicinity. Construction noise will be temporary, restricted to daylight hours, and further conditioned by the application of Master Plan mitigation outlined in Appendix B, including limits on construction noise levels, special scheduling for work with unusual noise levels, restrictions of noise operating hours in the vicinity of residence halls, and location of stockpiling/staging areas in more remote portions of the site. Existing measures also include designation of haul routes away from sensitive receptors. The project is not expected to require pile drivers, which would increase potential for vibration or noise above typical levels. Pavement will generally be removed using excavators and similar large equipment, rather than hand-held jackhammers. Impacts associated with construction noise are considered *less than significant (Class III).*

Long Term (Permanent)

The residential component of the project will not generate substantive ambient noise over existing conditions once operational. Periods of higher noise levels will occur during move-in/move out periods, but noise emitted from the site will generally be typical of residences, and include voices, services such as maintenance, and outdoor activity. This type of noise is consistent with existing activities in adjacent areas, including existing student residences to the east, athletic fields to the west, and the school site located to the south. The site has been

designed to generally orient entrances and exits from buildings internal to the site; the main central green is also located central to the site. The outdoor activity areas located at the southern end of the site will be sources of periodic daytime noise; however, this noise is consistent with other existing outdoor recreational facilities in the area.

The proposed parking program would reduce the total number of parking spaces on-site, and reduce the number of vehicles accessing the site, and associated noise. The closure of the parking lot will divert trips to other locations on campus; however, the estimated 150 diverted trips will not generate audible changes in noise levels at the receiving locations. Affected roadways include California Boulevard, Foothill Boulevard, Santa Rosa Street (Highway 1), and Highland Drive; these roadways are heavily traveled and the increment of change would not alter noise levels perceptibly. Operational impacts are, therefore, considered less than significant. The project will not conflict with the policies of the City regarding transportation or land use as sources of noise in the community. Long-term impacts are considered *less than significant (Class III).*

4.4.5.2 Exposure of Student Residents to Noise

Based on the Acoustical Study prepared for the project, existing and predicted ambient noise levels are within accepted parameters for development of student housing. Structural ventilation (operable windows versus mechanical ventilation) will be designed in accordance with existing code requirements, as outlined in Section 4.4.2.1. Impacts are considered *less than significant (Class III).*

4.4.5.3 Ground borne Vibration and Noise

The project will not be subjected to, or be a generator of, ground borne vibration or noise. Periodic sources of ground borne vibration in the area are limited to the railroad, which is more than 3,000 feet from the project site. The project site is not located near major highways or other potential sources of vibration.

The project includes residential and parking components, which are not expected to be a long-term source of vibration and noise.

Construction-related impacts are addressed in 4.5.5.1. Impacts are considered *less than significant (Class III).*

4.4.5.4 Nuisance Noise

Community members have identified concerns with potential increases in nighttime nuisance noise events associated with the project. The site has been designed to generally orient buildings north or internal to the site, and to locate potential noise sources such as the parking structure, internal to campus. The University, as outlined in Section 4.5.1.2, has established regulations for nuisance noise events, in addition to regulations outlined by City law enforcement. This type of noise is considered highly sporadic and variable, and therefore does not constitute a permanent or temporary change in ambient noise levels. Impacts are considered *less than significant (Class III).*

4.4.5.5 Plan Consistency

Based on the discussions above, the project would not conflict with plans or policies related to noise. Impacts are considered *less than significant (Class III).*

4.4.6 Cumulative Impacts

Continued increases in enrollment and staffing at the University, and implementation of proposed facility projects listed in the cumulative development scenario would incrementally increase noise in the area. Enrollment and staffing growth may result in additional traffic; facility improvements on campus are not otherwise expected to be significant source of noise. Traffic growth is expected to be moderate, and would be dispersed to the various campus entry points. The project would not add perceptibly to the long-term ambient noise environment in the area; cumulative impacts are therefore considered *less than significant (Class III).*

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4.5 PUBLIC SERVICES AND RECREATION

This section of the EIR discusses impacts to public services, namely fire protection services, police services, and recreational facilities in the City. Impacts to police, schools, libraries, other governmental services, and campus recreational facilities are considered less than significant based on analysis provided in the Initial Study, as noted in EIR Section 4-8 (Issue Areas with Less Than Significant Impacts).

4.5.1 Existing Conditions

4.5.1.1 Fire Protection

The University contracts with the City Fire Department and the California Department of Forestry and Fire Protection (CAL FIRE) to provide fire and emergency response on campus. Cal Poly's contract with the City covers all structures on campus as well as grassland fire suppression up to 450 feet in elevation. Fires above this elevation fall under the jurisdiction of CAL FIRE. A fire occurring on the project site would be the primary responsibility of the City Fire Department.

The City Fire Department has a staff of approximately 55 employees, including 45 firefighters and 10 administrative and fire prevention personnel. The Department has four stations in the City. The nearest stations are Fire Station 2 at North Chorro, and Fire Station 1 at the intersection of Santa Barbara, Broad, and South Streets. Current response times from Station 2 are 2 to 2.5 minutes, followed by Station 1 with a response time of 3 to 3.5 minutes. Response times given are to the campus core.

The CAL FIRE station is located at Highland Drive and Highway 1, at the Highland Drive entrance to campus.

Existing calls to the fire department are low, as noted in the most recent Fire Services Agreement (2013), and the Annual Fire Safety Report for 2012. Approximately seven fire events occurred in 2012, mainly associated with cooking in student residences.

The project site is served by existing fire suppression infrastructure (i.e., hydrant systems). The project is required to comply with existing Fire and Building Code regulations intended to reduce risk of damage to property and persons. Applicable regulations address roofing and roof access, fire flow (water) infrastructure, design of hydrant systems, fire protection systems (sprinklers and alarms), fire extinguishers, and structure egress. The project must also comply with access requirements (primary and secondary), provide adequate fire lanes, and maintain defensible space. Preliminary engineering studies indicate adequate fire flow (water volume and pressure) at the project site.

4.5.1.2 Police Protection

The University Police Department is responsible for the protection of lives and property within the boundaries and jurisdiction of the Cal Poly campus. University police officers are vested with full law enforcement powers and responsibilities in accordance with the California Penal Code. The University Police Department has a mutual aid agreement with the City of San Luis Obispo Police Department and the County Sherriff's Department. In case of an on-campus emergency, either of these law enforcement agencies can be called upon for back-up assistance. If additional aid is needed, the California Highway Patrol can be called in. The University Police Department headquarters recently underwent facilities consolidation and expansion.

4.5.1.3 Recreation

As noted in EIR Chapter 2 (Project Description), substantive recreational facilities exist on campus and proximate to the proposed project, including the recently renovated Recreation Center, track and field facilities, tennis courts, and the Aquatic Center. The project does not increase enrollment; students occupying the proposed housing currently have access to these facilities.

During the scoping process, community members identified concerns with increased use or trespass on nearby recreational facilities, including the former Pacheco Elementary School. Community parks and recreational facilities proximate to the proposed housing site are as follows:

Former Pacheco Elementary School. The former Pacheco Elementary School site is located south of the project site across Slack Street. This former public school campus is currently occupied by several private schools. The San Luis Coastal Unified School District (School District) controls access to this school campus. Facilities include basketball courts, open fields, and baseball facilities (striped infield, backstop and dugouts). This facility is not lit at night. During the day the facilities are in use by tenant school entities at the site; after school hours the School District has special arrangements with groups such as Little League for use. Groups may reserve facilities during after-school daylight hours and weekends at the discretion of the School District. Problems which may arise due to nuisances on site are reported to the School District by tenants during operating hours. After hours nuisances are reported to the School District or the City Police Department by the public. The City Police Department has ultimate responsibility for law enforcement on this campus (Ryan Pinkerton, San Luis Coastal Unified School District, personal communication 2013).

Cuesta Park. Cuesta Park is a County park located more than 0.8 miles from the project site and is not considered within walking distance (0.5 miles or less). The project is not expected to affect this facility.

Santa Rosa Park. Santa Rosa Park is located at Santa Rosa Street and Oak Street approximately 1 mile southwest of the project site, west of the Union Pacific Railroad. This facility is not considered within walking distance. The project is not expected to impact this facility.

There are no other public recreational facilities located within walking distance of the project.

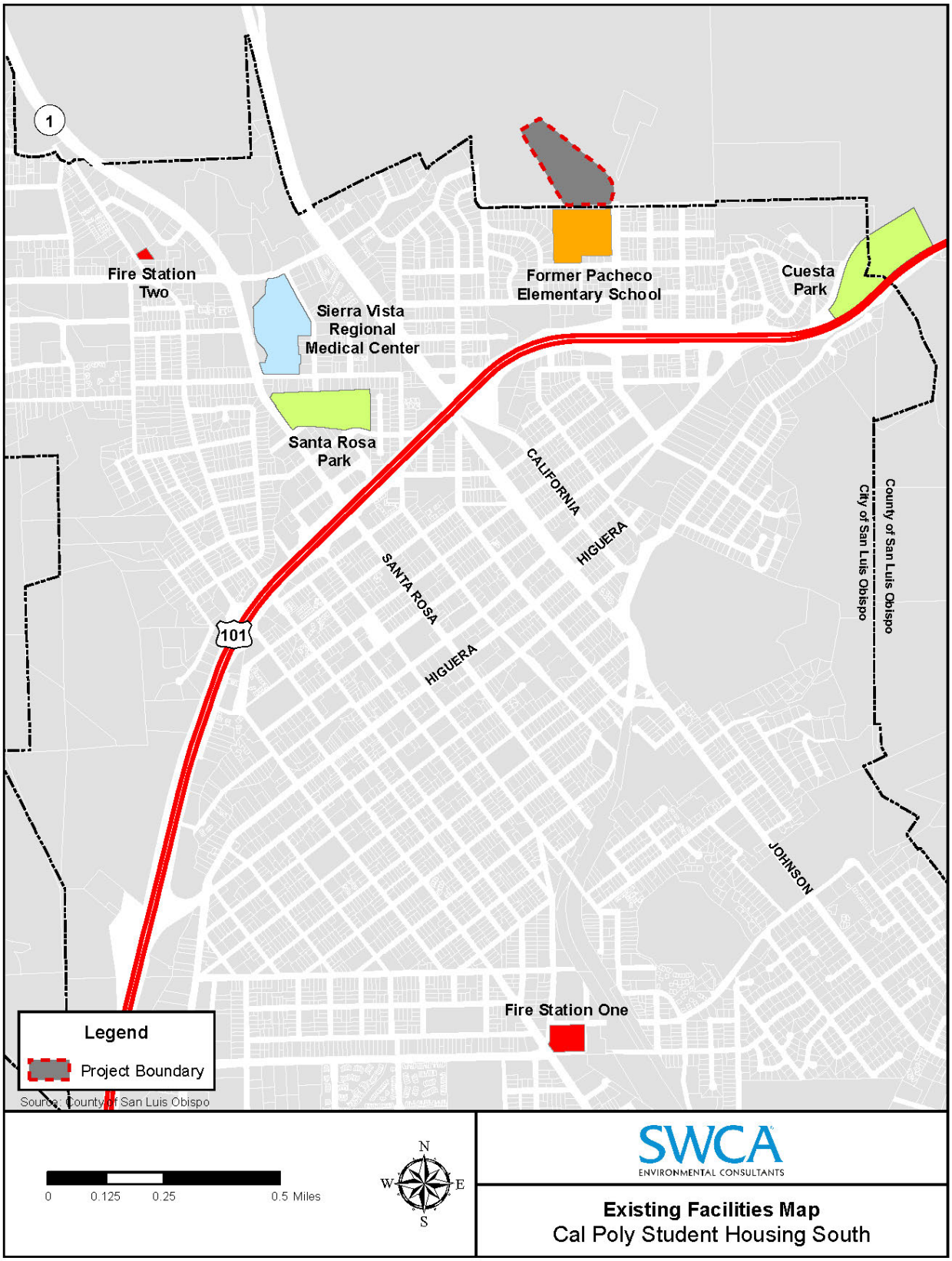
4.5.2 Regulatory Setting

4.5.2.1 Applicable Regulations

<u>California Building Code</u>

The project is required to comply with existing Fire and Building Code regulations intended to reduce risk of damage to property and persons. Applicable regulations address roofing and roof access, fire flow (water) infrastructure, design of hydrant systems, fire protection systems (sprinklers and alarms), fire extinguishers, and structure egress. The project must also comply with access requirements (primary and secondary), provide adequate fire lanes, and maintain defensible space.

Figure 4.5-1. Existing Facilities Map



Public Safety

The University provides significant public safety infrastructure on campus, including in residential areas and parking structures. Strategies include lighting, callboxes, and safe space and building design. University police will evaluate the project for public safety concerns.

4.5.3 Thresholds of Significance

The thresholds of significance are based on the criteria set forth in Appendix G of the CEQA Guidelines. According to those criteria, a project would result in a fire, police protection or recreation-related impact if it would:

1. Result in substantial adverse physical impacts associated with the provision of new or physically altered fire or police protection facilities, need for new of physically altered fire or police protection facilities, the construction of which could cause significant environmental impacts, in order to maintain acceptable service ratios, response times or other performance objectives.

2. 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.

3. Include recreational facilities or require the construction or expansion of recreational facilities which might have an adverse physical effect on the environment.

4.5.4 Impact Assessment and Methodology

Impacts to fire protection services were based on evaluation of current code compliance, access, and equipment. Impacts to police protection services were based on evaluation of the adequacy of existing police facilities. Impacts to community recreational resources were based on information obtained from the San Luis Coastal Unified School District (Ryan Pinkerton, personal communication 2013).

4.5.5 Project-specific Impacts and Mitigation Measures

4.5.5.1 Fire Protection

The project will introduce additional nighttime residents to the campus, and will increase the total number of buildings requiring fire protection. The project will not increase enrollment. Therefore, the project will not directly increase potential calls for health and safety related to the population; the project will potentially increase nighttime call volume at the University.

The assessment of impacts related to public services, as set forth in the CEQA Guidelines, is focused on the environmental impact of any expanded or new facilities required to achieve performance standards. The Fire Department has recently completed a major expansion of Station 2. No additional improvements to facilities which could have an environmental impact have been identified. The proposed housing is a consolidation of bedcount approved under the existing Master Plan; the project does not increase bedcount, enrollment, or estimates of built space beyond Master Plan projections; therefore, assuming fire department planning accounts for development under the Master Plan, no additional impacts to facilities are anticipated.

The Fire Department has raised concerns regarding provision of adequate access to the proposed buildings. The project does not introduce new structural heights; existing buildings on campus, including student residences, include five-story structures. Therefore, the project will

not result in the need for new equipment. The project will be fully sprinklered and otherwise comply with provisions of the Fire Code. Access is proposed in several locations throughout the site. Final plans will be subject to approval by the State Fire Marshal. Impacts are considered *less than significant (Class III)*.

4.5.5.2 Police

The project will introduce additional nighttime residents to the campus, and will increase the total number of buildings, but not total area, requiring patrol. The project will not increase enrollment. Therefore, the project will generate additional nighttime call volume for University Police. The project will not generate call volume which will result in the need for additional equipment or facilities, which would cause an environmental impact. The University Police headquarters recently underwent expansion to anticipate ongoing growth at the University, including the proposed project. Impacts are considered *less than significant (Class III)*.

Community members have cited ongoing concerns with nuisances related to nighttime partying in neighborhoods, and are concerned about potential increases in nighttime public safety nuisances such as noise and trespass associated with the project.

The proposed project would house existing students at the University, who live either on-campus in units in triple-bed configuration (over 600 students of the 1,475 residents proposed), or in the surrounding community in private residences and multi-family housing. The project would relocate these *existing* students to the proposed site. Presumably, the number of calls to off-campus police services would not change based on the relocation; students who choose to engage in nuisance behavior or law violations within the city limits may continue this behavior. The location of nuisance activity may change incrementally depending on where the students relocate from, however, this is difficult to quantify or predict. Ongoing public safety concerns associated with students and the City are addressed by local ordinances, which restrict gatherings and associated nuisances, University programs, which expand nighttime programs and activities on campus, and continued improvement of the on-campus residential community, including the development of housing complexes. The University will continue to work with the surrounding community to address concerns over student behavior.

Pursuant to CEQA, impacts are considered significant if the project would result in environmental impacts associated with the provision of additional structures or facilities to support police and other public services. Incremental changes associated with the location of nuisance activity in the community will not result in the need for such facilities; alterations in police may include redistribution of patrols and additional personnel. Pursuant to CEQA criteria, impacts are considered *less than significant (Class III).*

4.5.5.3 Off-Campus Recreation

Community members identified concerns with students potentially accessing the former Pacheco Elementary School Site. As noted above, this facility is in use by tenants during school hours, and is subject to reservations by groups after hours. The lack of lighting deters use at night. The proximity of existing campus recreational facilities, as well as proposed on-site recreational facilities, will deter potential use of the site by students. Nuisances at the former elementary school, including unauthorized use by groups, are subject to standard law enforcement action. Based on the proximity of substantial existing recreational facilities on campus, the provision of on-site recreational facilities, and the primacy of tenants and organized groups as facility users, the project is not expected to contribute substantially to deterioration of

this facility, or increase use substantially such that additional recreational resources would need to be constructed to offset the impact. Impacts are considered *less than significant (Class III)*.

4.5.5.4 Plan Consistency

The project provides housing and parking pursuant to objectives of the Master Plan. The project would not conflict with policies and programs related to fire, police, or recreation. Impacts are considered *less than significant (Class III*).

4.5.6 Cumulative Impacts

Implementation of the pending and approved projects listed in the cumulative development scenario would increase development on campus and in the immediate area. Continued development on and near campus would incrementally increase demand for fire protection services and recreational facilities. Ongoing growth in enrollment and staffing would alter the location and potential volume of calls on campus.

Impacts of additional development within the City of San Luis Obispo are addressed through the payment of impact fees at the time development is proposed. Impact fees are set to offset incremental impacts to public services, including fire protection and recreational facilities. Campus development is not subject to such fees. Current infill development on campus and increases in enrollment are in accordance with the adopted Master Plan. Recreational facilities on campus have been improved in accordance with and in anticipation of Master Plan buildout; no further improvements have been deemed necessary. The University continually reassesses its contract with the City of San Luis Obispo for fire protection; ongoing contract negotiations and continued compliance with the provisions of the fire and building code will be sufficient to address potential cumulative impacts to fire protection. University Police have recently expanded their headquarters to accommodate projected growth. The University will continue to work with the City regarding public safety issues in the surrounding community; however, physical environmental impacts associated with facilities expansion are not anticipated. Cumulative impacts are therefore considered *less than significant (Class III)*.

4.6 TRAFFIC AND CIRCULATION

This section documents the traffic and transportation-related impacts associated with the proposed project. A Transportation Impact Analysis (TIA) (Fehr and Peers 2013) was prepared for the project, and is included as Appendix F. The TIA serves as the basis for the traffic analysis that follows, and is incorporated by reference into the discussion and impact assessment below.

4.6.1 Existing Conditions

The existing transportation setting and baseline traffic conditions are discussed in detail below.

4.6.1.1 Street System

The project site is bounded by Slack Street on the south, Pacheco Way on the west, the Grand Avenue parking structure access road on the north, and Grand Avenue on the east. Regional access would be provided by Santa Rosa Street (State Route 1), California Boulevard, Grand Avenue, and Foothill Boulevard. Highland Drive and Slack Street provide local access to the project site. The three primary gateways into Cal Poly are Grand Avenue, California Boulevard, and Highland Drive. A gateway also exists on Stenner Creek Road north of campus, but given the extra distance required to travel to the campus core, this gateway serves a low number of trips.

These facilities are described in further detail below.

- Santa Rosa Street (State Route 1) is a north-south arterial roadway that runs from downtown San Luis Obispo to the northern edge of the city where it continues as State Route 1 towards Morro Bay and the communities along the northern coast of San Luis Obispo County. The facility is located east of the project site and provides access to the Cal Poly campus and the project site via Highland Drive. In addition, the route continues south of the study area into downtown San Luis Obispo. Near the project site, the street is a four-lane, divided roadway that carries an average daily traffic (ADT) volume of approximately 31,000 vehicles per day.

- California Boulevard is a north-south arterial roadway that runs from Highland Drive (on the Cal Poly campus) in the north to San Luis Drive in the south. The facility provides access to the project site via Highland Drive and the Union Pacific Railroad underpass. The roadway terminates at Highland Drive just west of the project site and carries approximately 8,700 vehicles per day just south of the campus boundary.

- Grand Avenue is a north-south arterial roadway that runs from Monterey Street in the south into the center of the Cal Poly campus. The facility provides access to the southeast corner of campus, where most of the parking on the south side of campus is provided. Near the campus border, Grand Avenue carries approximately 12,500 vehicles per day.

- Foothill Boulevard is an east-west arterial roadway that runs from Los Osos Valley Road in the west to the Cal Poly campus boundary in the east (where it terminates at a cul-de-sac). The facility provides access to campus via Santa Rosa Street and California Boulevard. Between Santa Rosa Street and California Boulevard, Foothill Boulevard carries approximately 16,500 vehicles per day.

- Highland Drive is an east-west arterial roadway that runs from the northwest corner of the city of San Luis Obispo in the west to Via Carta on the Cal Poly campus in the east. The roadway connects to Mount Bishop Road and then extends to provide access to the parking lots north of the campus core. East of Santa Rosa Street, Highland Drive carries approximately 7,000 vehicles per day.

- Slack Street is an east-west collector roadway that runs from the eastern foothills of San Luis Obispo to Longview Lane in the west. Longview Lane provides access (via Hathway Avenue and Carpenter Street) to Foothill Boulevard via the residential neighborhoods south of campus. At Grand Avenue, Slack Street carries approximately 2,000 vehicles per day.

Traffic conditions at seven intersections within the project vicinity were analyzed to determine how project-related effects would impact traffic and circulation within the project area. The intersections analyzed and the jurisdictions, either the City or California Department of Transportation (Caltrans), in which they are located include:

1. Highland Drive/Santa Rosa Street (City/Caltrans)
2. Foothill Boulevard/Santa Rosa Street (City/Caltrans)
3. Olive Street/Santa Rosa Street (City/Caltrans)
4. Walnut Street/Santa Rosa Street (City/Caltrans)
5. Foothill Boulevard/California Boulevard (City)
6. Taft Street/California Boulevard (City)
7. US 101 Northbound Ramps/California Boulevard (City/Caltrans)

Intersections 6 and 7, above, are side street stop-controlled.

Preliminary analysis indicated substantial traffic volume reductions on Grand Avenue, and the Grand Avenue/US 101 on-ramps associated with the project. These facilities were not, therefore, analyzed further.

Refer to Figure 4.6-1, below, for the regional traffic setting.

Existing Intersection Levels of Service

Motor vehicle traffic congestion is generally expressed in terms of Level of Service (LOS), a qualitative measure of traffic levels, with LOS A representing the best operating conditions. LOS A through C generally indicate free-flowing traffic with little delay. LOS D and E indicate worsening congestion, and LOS F indicates essentially gridlock, or stopped conditions.

Existing peak hour LOS at the studied intersections are shown in Table 4.6-1, below. The existing LOS determinations were calculated using the Synchro 7 software program for Existing Conditions (refer to Appendix F for supporting LOS calculations sheets).

Figure 4.6-1. Regional Traffic Setting

Source: Fehr and Peers 2013

Table 4.6-1. Existing Intersection Levels of Service

	Intersection	Peak Hour[1]	Intersection Control	Delay[2]	LOS	Deficient?[3]			Signal Warrant Met?[4]
						TSM	SLO	CT	
1	Highland Drive/ Santa Rosa Street	AM	Signal	24.6	C	No	No	No	N/A
		PM		30.6	C	No	No	No	
2	Foothill Boulevard/ Santa Rosa Street	AM	Signal	**37.8**	**D**	No	No	**Yes**	N/A
		PM		**45.9**	**D**	No	No	**Yes**	
3	Olive Street/ Santa Rosa Street	AM	Signal	11.9	B	No	No	No	N/A
		PM		11.3	B	No	No	No	
4	Walnut Street/ Santa Rosa Street	AM	Signal	**35.8**	**D**	No	No	**Yes**	N/A
		PM		23.9	C	No	No	No	
5	Foothill Boulevard/ California Boulevard	AM	Signal	30.8	C	No	No	N/A	N/A
		PM		45.7	C	No	No		
6	Taft Street/ California Boulevard	AM	Side Street	32.0	D	No	No	N/A	Yes
		PM	Stop Control	**>180**	**F**	**Yes**	**Yes**		**Yes**
7	US 101 Northbound Ramps/ California Boulevard	AM	Side Street	**35.8**	**E**	**Yes**	**Yes**	**Yes**	**Yes**
		PM	Stop Control	**66.2**	**F**	**Yes**	**Yes**	**Yes**	**Yes**

Notes:
Bold indicates deficient intersection operations.
[1] AM = morning peak hour, PM = afternoon peak hour.
[2] Signalized intersections: whole-intersection average vehicle control delay. Unsignalized intersections: worst side street approach average control delay
[3] TSM = CSU TSM guidelines, SLO = City of San Luis Obispo guidelines, CT = Caltrans guidelines
[4] California MUTCD Section 4C.04: Signal Warrant #3 – Peak Hour Warrant

Source: Fehr & Peers, November 2013.

4.6.1.2 Pedestrian and Bicycle Facilities

Pedestrian Facilities

Cal Poly has a high rate of alternative transportation usage; many students who live near campus walk, bike, or take transit, which suggests that automobile trips to campus may largely be from areas outside of the northern part of the city (areas further than 1–2 miles away from the campus core).

Pedestrian facilities consist of sidewalks, crosswalks, and pedestrian signals. The streets surrounding the project site all have sidewalks on at least one side of the street; however, sidewalks are not present along the east side of Pacheco Way, which is not a through street, or on the north side of Slack Street.

Marked crosswalks are provided at the Grand Avenue/Slack Street and Grand Avenue/Parking Structure access road intersections. A signalized midblock crossing is also provided about 750

feet north of the Grand Avenue/Slack Street intersection on Grand Avenue. There are no marked crosswalks at the Pacheco Way/Slack Street intersection.

Bicycle Facilities

Bicycle facilities are generally based on the Caltrans Highway Design Manual and consist of paths (Class I), lanes (Class II), and routes (Class III) as described below.

- Class I Bikeway (Bicycle Path) provides a completely separate right-of-way and is designated for the exclusive use of bicycles and pedestrians with vehicle and pedestrian cross-flow minimized.

- Class II Bikeway (Bicycle Lane) provides a restricted right-of-way and is designated for the use of bicycles with a striped lane on a street or highway. Bicycle lanes are generally 4 to 6 feet wide. Adjacent vehicle parking and vehicle/pedestrian cross-flow are permitted.

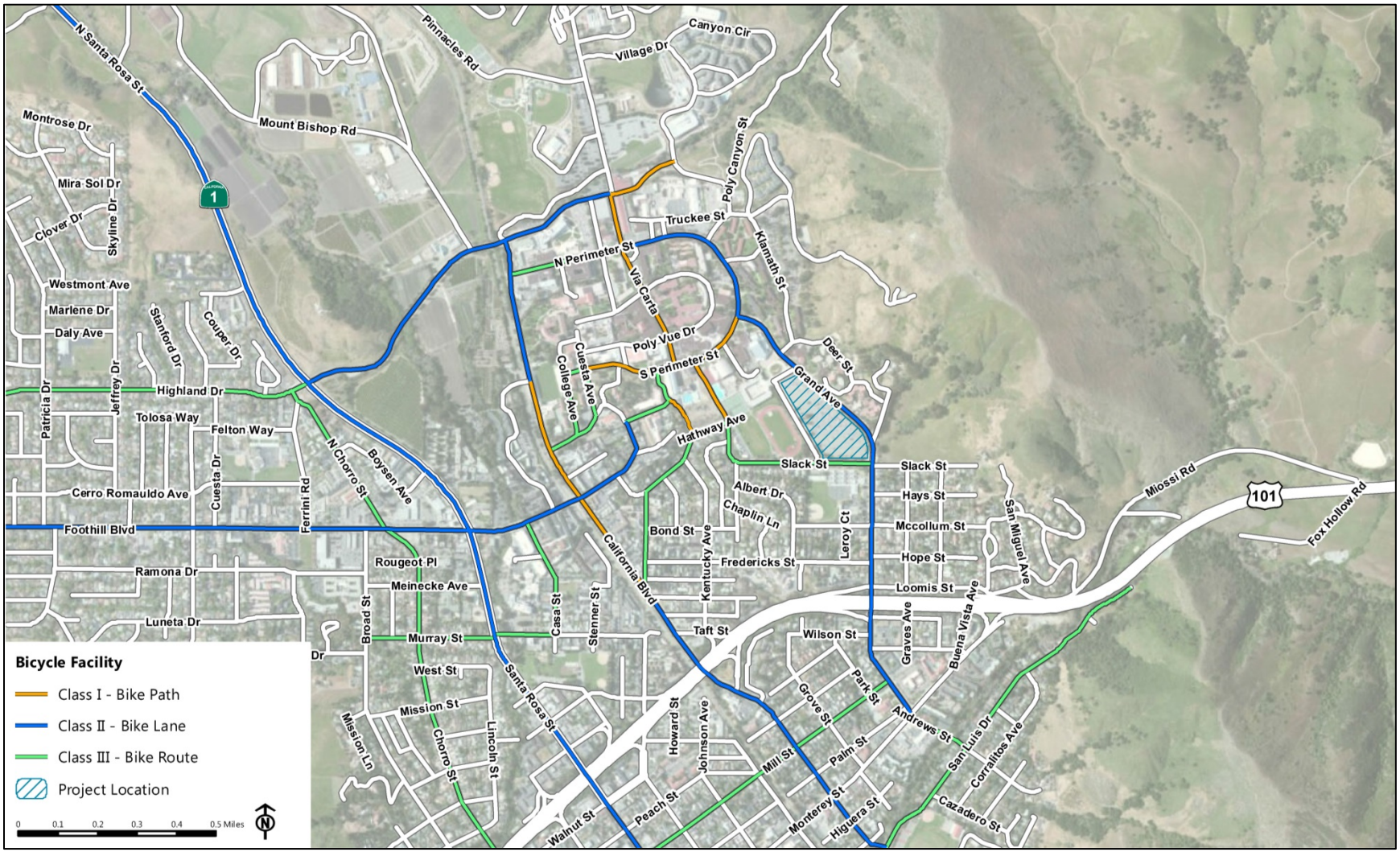
- Class III Bikeway (Bicycle Route) provides for a right-of-way designated by signs or pavement markings (sharrows) for shared use with pedestrians or motor vehicles. Sharrows are a type of pavement marking (bike and arrow stencil) placed to guide bicyclists to the best place to ride on the road, avoid car doors, and remind drivers to share the road with cyclists.

In the vicinity of the project site, Class II bicycle facilities are provided along the length of Grand Avenue. A Class III bicycle facility is provided along Slack Street. A Class I bicycle facility parallels California Boulevard from Mustang Stadium south to Hathaway Avenue.

Class II facilities are also provided along Foothill Boulevard and Santa Rosa Street; however, the high volume of traffic on these roadways deters bicycle use.

Figure 4.6-2, below, shows the location of bicycle facilities in the project vicinity.

Figure 4.6-2. Existing Bicycle Facilities



Source: Fehr and Peers 2013

4.6.1.3 Public Transit Services

The project site is served by San Luis Obispo City Transit (SLO Transit) and Regional Transit Authority (RTA) bus lines. These fixed routes operate on a weekly basis and link commuters throughout the city and surrounding communities. Cal Poly currently subsidizes student ridership on SLO Transit. The bus lines that serve the project site are summarized in Table 4.6-2, below. A map of existing transit routes is shown as Figure 4.6-3.

Table 4.6-2. Existing Transit Service Summary

Route	From[1]	To[1]	Distance to Nearest Stop[2]	Weekdays		Weekends	
				Operating Hours	Peak Hour Headway[3] (minutes)	Operating Hours	Headway[3] (minutes)
SLO Transit							
4[4]	Madonna/ Los Osos Valley Road	Downtown Transit Center	0.25	6:34 a.m. – 10:44 a.m.	30	8:10 a.m. – 6:05 p.m.	60
5[4]	Downtown Transit Center	Madonna/ Los Osos Valley Road	0.20	6:20 a.m. – 7:22 p.m.	30	8:20 a.m. – 6:17 p.m.	60
6a	Cal Poly Kennedy Library	Ramona/ Palomar	0.75	7:16 a.m. – 10:19 p.m.	30	9:10 a.m. – 5:29 p.m.	60
6b	Cal Poly Kennedy Library	Downtown Transit Center	0.25	7:02 a.m. – 10:56 p.m.	30	8:45 a.m. – 5:56 p.m.	60
RTA							
9	Downtown San Luis Obispo	San Miguel	0.25	5:30 a.m. – 9:40 p.m.	30-60	7:01 a.m. – 8:54 p.m.	120 – 180
10[5]	Cal Poly Kennedy Library	Santa Maria	0.75	5:45 a.m. – 6:20 p.m.	30	No weekend service to Cal Poly campus	
12x[5]	Downtown San Luis Obispo	Morro Bay	0.75	6:30 a.m. – 5:38 p.m.	NA	No weekend service to Cal Poly campus	

Notes:

[1] Routes run in both directions, except SLO Transit routes 4 and 5.

[2] Distance in miles from nearest stop to center of project site.

[3] Headways are defined as the time interval between two transit vehicles traveling in the same direction over the same route.

[4] Routes generally follow the same roadways and routes, but run in opposite directions.

[5] Cal Poly express service only.

Source: SLO Transit and RTA websites, July 2013.

Figure 4.6-3. Existing Public Transit Facilities

Source: Fehr and Peers 2013

4.6.1.4 Parking

Existing uses at the project site include a total of 1,324 campus parking spaces as follows:

- Parking lot G-1: general, non-residential parking lot containing 426 spaces; and,
- Parking lot R-2/G-4: residential parking serving the southernmost residential halls and overflow general parking from Lot G-1, consisting of 898 spaces.

The Cal Poly University Police Department conducted empty parking space counts over a 2-week period in April 2013, between the peak hours of 10:00 a.m. to 11:00 a.m. and 2:00 p.m. to 3:00 p.m., at the six large general parking areas and the three residential parking areas on the Cal Poly campus. Occupancy is summarized in Table 4.6-3.

Table 4.6-3. Existing Parking Lot Counts

Parking Lot	Lot Capacity (spaces)	10:00-11:00 AM Hour		2:00-3:00 PM Hour	
		Empty Spaces	% Occupied	Empty Spaces	% Occupied
General (Non-Residential) Parking					
H-1	366	345	6%	340	7%
H-12	441	12	97%	26	94%
H-14	367	282	23%	229	38%
H-16	506	148	71%	134	74%
G-1	426	62	85%	87	80%
Grand Ave Structure [1]	618	35	94%	53	91%
Resident Only Parking					
R-1	789	69	91%	89	89%
R-3	940	352	63%	361	62%
R-4 [2]	971	363	63%	372	62%
Combined Residential-General Parking					
R-2/G-4 [3]	898	373	58%	417	54%

Notes:
[1] Structure includes staff parking in addition to general parking. Only general parking data presented.
[2] Data not collected for R-4 garage, but Cal Poly Parking reports R-4 experiences similar occupancies to R-3
[3] Lot allows for overflow general parking. Majority of parking is residential parking.

Source: University Police Department and Fehr & Peers, July 2013.

Based on the April 2013 parking lot counts, the University has enough parking supply to meet demand during the morning and afternoon peak hours. Average occupancy at the onsite lots ranges from 54 to 85%.

4.6.2 Regulatory Setting

Traffic is regulated at the state and local levels through regulations, policies, and/or local ordinances. Local policies are commonly adaptations of federal and state guidelines, based on prevailing local conditions or special requirements.

Projects under the jurisdiction of the CSU system are subject to the requirements of the CSU Transportation Impact Study Manual (TSM). The TSM provides guidance to CSU campuses in the preparation of transportation impact studies for CEQA compliance. The manual includes best practice methods for completion of transportation impact studies under CEQA. Guidance includes consideration of policies and thresholds of local jurisdictions. This is reflected in the analysis of impacts under applicable CSU, City, and Caltrans thresholds in Section 4.6.3, below.

4.6.3 Thresholds of Significance

Project impacts are evaluated pursuant to the requirements of the CSU TSM. While the CSU is not subject to local planning directives, including those of the City, for the purposes of this analysis, City significance criteria were applied to assess the effective performance of the circulation system. In addition, the project was evaluated according to the Caltrans LOS standards as identified in the Caltrans Guide for the Preparation of Traffic Impact Studies (December 2002).

4.6.3.1 Intersections

California State University Thresholds

Signalized

Significant impacts at signalized intersections occur when the addition of project traffic causes one of the following:

- Intersection operations to degrade from an acceptable level (LOS D or better) to an unacceptable level (LOS E or F); or,
- Exacerbates unacceptable operations (LOS E or LOS F, up to 119.9 seconds of average control delay) by adding 10 or more peak hour trips and 5 seconds or more of peak hour delay during the same peak hour; or,
- Exacerbates unacceptable operations (LOS F, at or over 120.0 seconds of average control delay) by increasing the volume-to-capacity ratio by 0.02 or more.

Unsignalized

LOS analysis at unsignalized intersections is generally used to determine the need for modifying intersection control type (i.e., all-way stop or signalization). As part of this evaluation, traffic volumes, delays, and peak hour traffic signal warrants are evaluated to determine if the existing intersection control is appropriate. Significant impacts at signalized intersections occur when the addition of project traffic triggers both criteria:

Criterion 1: Off-site Traffic Operations

- Intersection operations degrade from an acceptable level (LOS D or better) to an unacceptable level (LOS E or F); or,

- Exacerbates unacceptable operations (LOS E or LOS F, up to 119.9 seconds of average control delay) by adding 10 or more peak hour trips and 5 seconds or more of peak hour delay during the same peak hour; or,

- Exacerbates unacceptable operations (LOS F, at or over 120.0 seconds of average control delay) by increasing the volume-to-capacity ratio by 0.02 or more.

Criterion 2: Intersection Traffic Control

- The addition of project traffic causes an all-way stop-controlled or side street stop-controlled intersection to meet Caltrans signal warrant criteria.

Significant impacts occur when the addition of project traffic degrades operations and the intersection satisfies the peak hour signal warrants from the California Manual of Uniform Traffic Control Devices (MUTCD) in the added project traffic scenario only.

City of San Luis Obispo Thresholds

Signalized

Significant impacts at signalized City intersections occur when the addition of project traffic causes one of the following:

- Intersection operations to degrade from an acceptable level (LOS E or better on downtown arterials, LOS D or better on other streets) to an unacceptable level (LOS F on downtown arterials, LOS E or F on other streets)' or,

- Project traffic is added to an intersection operating at unacceptable levels.

Unsignalized

Significant impacts at unsignalized City intersections occur when the addition of project traffic causes intersection operations to degrade to an unacceptable level and satisfy the peak hour signal warrant from the California MUTCD, or the project's access to a major street causes a potential unsafe situation or requires a new traffic signal based on standard warrant criteria.

Caltrans Thresholds

Caltrans has jurisdiction over all state-maintained facilities, including State Route 1 (Santa Rosa Street) in the project vicinity. Caltrans strives to maintain operations at the LOS C/D threshold on all of its facilities, but acknowledges that numerous roadway segments under its control in urban areas will operate at LOS D or worse.

The Caltrans Guide for the Preparation of Traffic Impact Studies (December 2002) states that:

> *"Caltrans endeavors to maintain a target LOS at the transition between LOS C and LOS D on State highway facilities; however, Caltrans acknowledges that this may not be always feasible and recommends that the lead agency consult with Caltrans to determine the appropriate target LOS."*

The LOS standard for Caltrans intersections in the vicinity is LOS C. A project triggers a significant impact if the project adds net new trips to an intersection already operating at unacceptable levels.

4.6.3.2 Pedestrian and Bicycle Facilities

The CSU TSM includes impact criteria to ensure that pedestrian and bicycle facilities are safe and effective for users and that the project does not conflict with existing transportation plans, guidelines, policies, or standards as they relate to non-automotive transportation. Significant impacts to these modes of transportation would occur when:

- A project significantly disrupts existing or planned bicycle facilities or significantly conflicts with applicable non-automotive transportation plans, guidelines, policies, or standards.
- A project fails to provide safe pedestrian connections between campus buildings and adjacent streets and transit facilities.
- A project significantly disrupts existing or planned pedestrian facilities or significantly conflicts with applicable non-automotive transportation plans, guidelines, policies, or standards.

4.6.3.3 Public Transit Facilities

Significant impacts to transit service would occur if the project or any part of the project:

- Significantly disrupts existing or planned transit facilities and services or significantly conflicts with applicable transit plans, guidelines, policies, or standards.

4.6.3.4 Site Design Criteria

Significant impacts relating to site design would occur if the project or any part of the project:

- Inhibits emergency vehicle access to facilities on the project site.
- Includes design features that present safety hazards to pedestrians, bicyclists, or motorists.

4.6.4 Impact Assessment and Methodology

Impacts were assessed by comparing intersection operations with the addition of project-generated traffic to those under existing conditions and applying the appropriate criteria from thresholds of significance described above. Potential impacts to bicycle, pedestrian, and transit facilities and services were also identified by comparing project conditions to existing conditions. The analysis assumes construction of a 300-space, rather than 500-space parking structure, to provide a reasonable worst-case scenario for identification of traffic impacts.

Trip generation is typically performed using rates from Trip Generation, 9th Edition from the Institute of Transportation Engineers (ITE). Trip Generation is a compendium of trip generation studies that allows for the estimate of trips for a given project based on collected data. However, owing to the lack of data on the proposed use (student housing), the removal of a substantial amount of parking on site, and the unique characteristics of Cal Poly campus travel (a higher propensity to walk, bike, or take transit), site-specific trip generation methodology was used, in accordance with ITE guidance to use local data where possible.

The LOS method identified in the CSU TSM and the City Traffic Impact Study Preparation Guidelines for signalized intersections is the method described in Chapter 16 of the 2000

Highway Capacity Manual (HCM) (Special Report 209, Transportation Research Board). This method bases signalized intersection operations on the average vehicular control delay.

Control delay includes initial deceleration delay, queue move-up time, stopped delay, and acceleration delay. The average control delay for signalized intersections is calculated using Synchro 7 analysis software and is correlated to a LOS designation as shown in Table 4.6-4. The CSU TSM and the City have established a minimum acceptable operating level of LOS D for intersections. Caltrans has established a minimum acceptable operating level of "the cusp of LOS C/D" for intersections. For purposes of this analysis, the minimum acceptable operating LOS for Caltrans is LOS C.

Table 4.6-4. Signalized Intersection Level of Service Definitions

LOS	Description	Average Control Delay Per Vehicle (Seconds)
A	Operations with very low delay occurring with favorable progression and/or short cycle lengths.	≤ 10.0
B	Operations with low delay occurring with good progression and/or short cycle lengths.	10.1 – 20.0
C	Operations with average delays resulting from fair progression and/or longer cycle lengths. Individual cycle failures begin to appear.	20.1 – 35.0
D	Operations with longer delays due to a combination of unfavorable progression, long cycle lengths, and high volume-to-capacity (V/C) ratios. Many vehicles stop and individual cycle failures are noticeable.	35.1 – 55.0
E	Operations with high delay values indicating poor progression, long cycle lengths, and high V/C ratios. Individual cycle failures are frequent occurrences.	55.1 – 80.0
F	Operations with delays unacceptable to most drivers occurring due to over-saturation, poor progression, or very long cycle lengths.	> 80.0

Source: Fehr & Peers, November 2013.

Operations of the unsignalized study intersections (e.g., stop sign controlled) were evaluated using the methods contained in Chapter 17 of the 2000 HCM and calculated using the Synchro 7 analysis software. LOS ratings for stop sign controlled intersections are based on the average control delay expressed in seconds per vehicle. At two-way or side street stop-controlled intersections, control delay is calculated for each movement, not for the intersection as a whole. For approaches composed of a single lane, control delay is computed as the average of all movements in that lane. Intersection impacts are determined based on the computed control delay and LOS for the worst approach at the intersection. Table 4.6-5 summarizes the relationship between delay and LOS for unsignalized intersections. The LOS standards for unsignalized intersections are equivalent to the signalized intersection standards.

Table 4.6-5. Unsignalized Intersection Level of Service Definitions

LOS	Description	Average Control Delay Per Vehicle on Worst Approach (Seconds)
A	Little or no delays	≤ 10.0
B	Short traffic delays	10.1 – 15.0
C	Average traffic delays	15.1 – 25.0
D	Long traffic delays	25.1 – 35.0
E	Very long traffic delays	35.1 – 50.0
F	Extreme traffic delays with intersection capacity exceeded	> 50.0

Source: Fehr & Peers, November 2013

4.6.5 Project-specific Impacts and Mitigation Measures

4.6.5.1 Intersections

Trip Generation

Trip generation is a transportation forecasting process which predicts the number of trips that will originate from a particular use or area. Vehicle trip generation for the proposed project is comprised of the following components:

- Commute trip reduction for freshmen who would no longer drive to campus due to the addition of available on-campus housing;
- Off-campus trips generated by existing freshmen who would live on campus as a result of the project;
- Redistributed commute trips from drivers that currently park in the G-1 and G-4 lots; and,
- Redistributed trips from residents who would park elsewhere on campus with the closure of the R-2 parking lot.

Commute Reductions and Offsets

The project does not propose any increase in Cal Poly enrollment; therefore, the number of trips associated with students commuting to campus would substantially decrease with the development of additional on-campus student housing. However, this reduction would be marginally offset by trips taken by those freshmen now living on campus to off-campus jobs, shopping, restaurants, recreational activities, etc. In October 2013, 72-hour driveway data was collected at the R-1 parking lot. This data was used to estimate the proportion of freshman parking demand that travels in and out of the lot during peak hours. Based on the traffic counts, approximately 3% of traffic in and out of the lot during the AM peak hour consisted of freshmen housed on campus, and a little over 12% of PM peak hour traffic consisted of campus-housed freshmen. This data was used to conservatively project the reasonable offset of project-related trip reductions due to the addition of on-campus housing.

Parking Redistributions

The project would remove 1,324 existing parking spaces at the project site. The reduction of parking supply would result in a redistribution of parking (and therefore trips) to available parking lots in other areas of the campus. Because those redistributed trips would redirect traffic onto different roadways and along different routes that would not otherwise experience an increase in use, redistributed parking trips resulting from the project are considered additional trips for purposes of this EIR.

The project site currently supports AM peak hour parking for approximately 464 general occupancy vehicles and 425 residential vehicles, and PM peak hour parking for 375 general occupancy vehicles and 445 residential vehicles. All of these vehicles would be relocated as a result of the proposed project. However, the project would develop a parking structure at the project site that would accommodate at least 300 general occupancy vehicles, and the Grand Avenue Parking Structure, located directly adjacent to the northwest corner of the project site, has existing available capacity to conservatively accommodate an additional 35 AM peak hour general occupancy vehicles and 53 PM peak hour general occupancy vehicles. Redistribution of vehicles to these facilities at the project location or directly adjacent to it would not affect circulation patterns or place additional vehicle trips on alternate routes in the project vicinity. Therefore, they are not included in the number of additional trips that would result from project-related parking redistributions.

No development of additional residential parking is proposed. Therefore, all existing residential parking lot vehicles would be relocated to alternative parking lots (425 AM peak hour vehicles and 445 PM peak hour vehicles). The proposed on-campus housing will generate additional on-campus residential parking demand of 401 parking spaces during AM and PM peak hours. Because no residential parking would be provided on-site, this demand would be redistributed to alternative lots on campus.

Assuming the use of available parking capacity in the new parking structure and at the Grand Avenue structure, the project would result in the redistribution of 129 general occupancy parking vehicles and 826 residential parking vehicles during AM peak hour and 22 general occupancy parking vehicles and 846 residential parking vehicles during PM peak hour.

Table 4.6-6, below, presents the project trip generation based on the factors described above, including a summary of redistributed parking trips, which, when considered “additional trips,” outnumber the reasonable number of commute reductions that can be expected to occur from the project. Therefore, the project is expected to result in a total of five additional AM peak hour trips and 150 additional PM peak hour trips on local streets and intersections.

Table 4.6-6. Project Trip Generation

Component	Peak Hour	Parking Lot Redistribution			Peak Hour Trips					
		Total Vehicles Shifted[1]	% of Shifted Vehicles Traveling in Peak Hour		AM Peak Hour			PM Peak Hour		
			Inbound	Outbound	In	Out	Total	In	Out	Total
General Parking Redistribution	AM PM	129 22	30%[2] 11%[4]	10%[4] 20%[2]	39	13	52	3	5	8
Residential Parking Redistribution	AM PM	826 846	2%[3] 10%[3]	3%[3] 12%[3]	21	28	49	87	104	191
Freshman Trip Reduction	N/A	N/A	N/A	N/A	-72	-24	-96	-17	-32	-49
			Total Combined Trips		***-12***	***17***	***5***	***73***	***77***	***150***

Notes: Table references are for TIA, attached as Appendix F

[1] From Table 9

[2] Factors From Table 4

[3] Factors From Table 5

[4] Factors derived from In/Out trip splits in Table 4

Sample Calculation: General Parking PM Peak Hour, off-peak direction (inbound) = 322 * 11% ≈ 36 trips

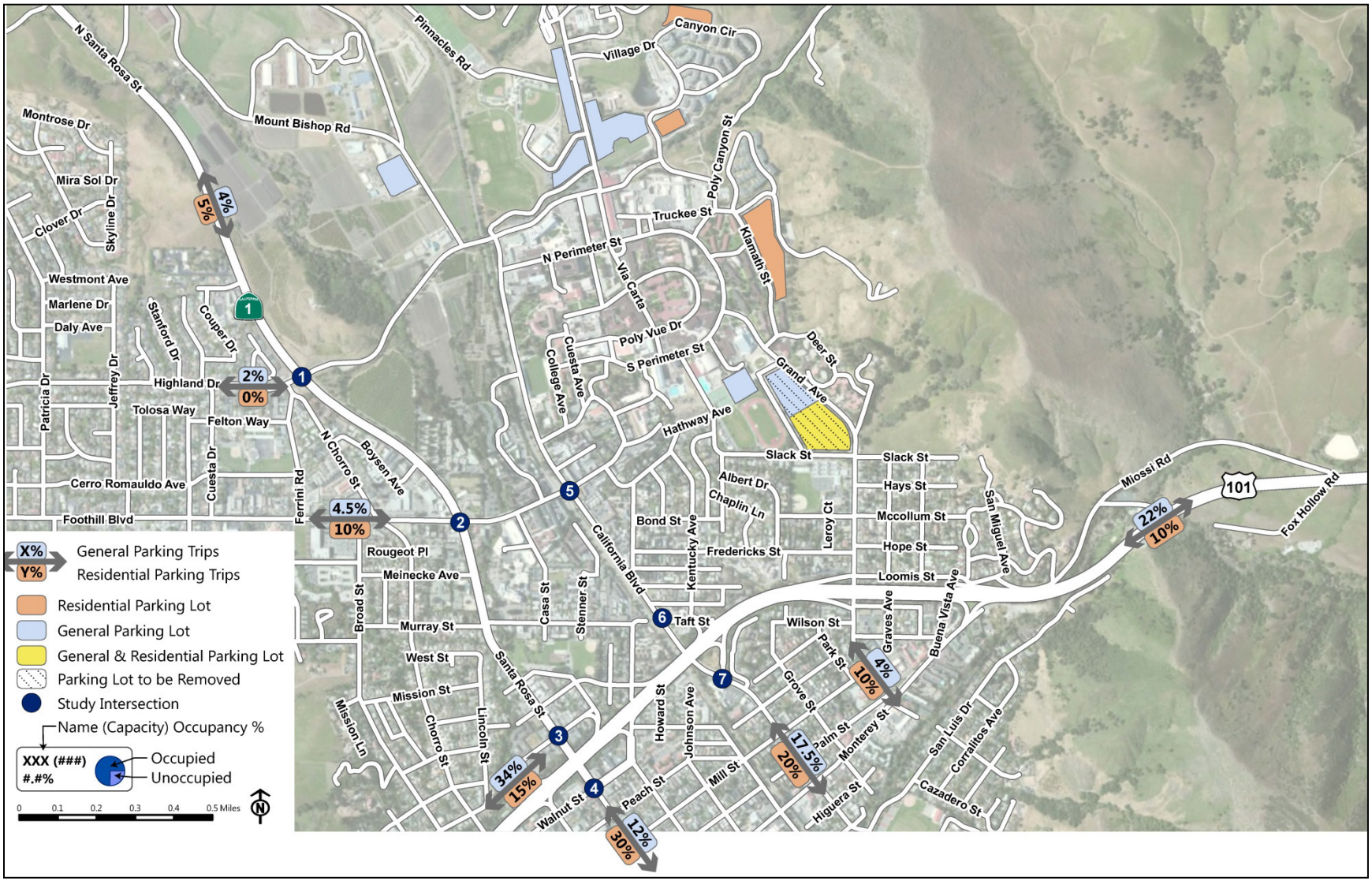
Source: Fehr & Peers, November 2013.

Trip Distribution

Trip distribution is a traffic-forecasting model that predicts how traffic (i.e., the project trip generation) will be distributed on the area-wide circulation system. Trip distribution patterns for freshmen on-campus residents were developed based on assumptions made about the types of trips they generally make (i.e., to part-time jobs, off-campus restaurants, other student housing areas, etc.) and the location of those facilities within the study area. The distribution of project-generated trips is primarily based on the relative distribution of existing traffic on local roadways. Figure 4.6-4, below, shows the project trip distribution based on the results of the TIA.

Trip distribution forecasting indicates that redistributed trips resulting from the project would add traffic to Santa Rosa Street (State Route 1), Highland Drive, Foothill Boulevard, US 101, California Boulevard, and Olive Street. The largest distribution of project-related traffic would be added to the Santa Rosa Street/Highland Drive and Santa Rosa Street/Foothill Boulevard intersections, with just under 80 additional PM peak hour trips added to each intersection as a result of the project.

Figure 4.6-4. Project Trip Distribution



Source: Fehr and Peers 2013

Level of Service Analysis

The TIA compared the existing LOS at all study intersections with the predicted LOS that would result after implementation of the proposed project (Existing with Project Conditions), based on the trip generation rate and distribution pattern discussed above. As shown in Table 4.6-7, below, most of the study intersections would continue to operate at acceptable LOS according to their designed LOS standard. However, all four intersections that currently exceed applicable LOS thresholds during AM and/or PM peak hour traffic would continue to exceed acceptable intersection operations after implementation of the project:

- Foothill Boulevard / Santa Rosa Street (AM and PM peak hours)
- Walnut Street / Santa Rosa Street (AM peak hour)
- Taft Street / California Boulevard (AM and PM peak hours)
- US 101 Northbound Ramps / California Boulevard (PM peak hour)

Signal Warrant Analysis

Unsignalized intersections that would operate unacceptably under Existing with Project Conditions were analyzed to determine if a traffic signal is warranted under the Federal Highway Administration MUTCD. Both unsignalized study intersections, Taft Street/California Boulevard and US 101 Northbound Ramps/California Boulevard, were determined to meet signal warrants for both AM and PM peak hours.

This forecasted traffic analysis does not, alone, justify the need for installation of a signal, but it does indicate a general need for correlation between the planned level of future development and the projected need for installation of new traffic signals at these locations. The decision to install a signal should be based on field-measured (rather than forecast) traffic data and a thorough study of traffic and roadway conditions, since the installation of signals can lead to certain types of collisions. The appropriate agency should undertake regular monitoring of actual traffic conditions and accident data, and timely re-evaluation of the full set of warrants to prioritize and program intersections for signalization within its jurisdiction.

Affected Intersections

The proposed project would replace 300-500 of the 1,324 parking spaces that would be removed in the G-1 and R-2/G-4 lots. Three hundred parking spaces were assumed in the analysis to provide a reasonable worst-case scenario. An additional 35 AM peak hour and 53 PM peak hour trips would be accommodated by existing capacity in the adjacent Grand Avenue structure. All remaining trips would be redistributed to alternative parking areas with available occupancy and would utilize the most direct routes from the origin to reach the new destination. Parking facilities with available capacity are located on the north side of campus; therefore, most redistributed trips would use Santa Rosa Street or California Boulevard to bypass the campus core and access the available parking on the north side of campus, adding to existing unacceptable operational conditions at three shared City/Caltrans jurisdictional intersections.

Existing with Project Conditions at each study intersection have been compared to applicable CSU, City, and Caltrans thresholds of significance for intersection LOS to indicate where applicable thresholds would be exceeded under each jurisdiction's regulations. Based on the intersection impact criteria listed in Section 4.6.3.1, above, the proposed project would have a

significant impact at three City/Caltrans-shared study intersections within the city during the following peak hours:

- Foothill Boulevard/Santa Rosa Street Intersection (AM and PM peak hours) – The addition of project traffic under Existing with Project Conditions exacerbate unacceptable intersection operations during the AM and PM peak hour per the Caltrans LOS criteria. Under the Caltrans impact significance criteria, the net addition of project trips results in the project causing a significant impact at this intersection.

- Walnut Street / Santa Rosa Street Intersection (AM peak hour) – Under the Caltrans impact significance criteria, the net addition of project trips results in the project causing a significant impact at this intersection. However, it should be noted that the intersection LOS may improve to acceptable conditions (LOS C) as modeled. To be conservative, impacts are considered significant because the project would add trips to an intersection currently at a deficient level of service under Caltrans thresholds.

- US 101 Northbound Ramps / California Boulevard Intersection (PM peak hour) - The addition of project traffic under Existing with Project Conditions exacerbates unacceptable intersection operations during the AM and PM peak hours. Under the City of San Luis Obispo criteria, the impact is less than significant as the intersection meets signal warrants under both the Existing and Existing with Project scenarios. Under the Caltrans impact significance criteria, the net addition of project trips results in a significant impact at this intersection.

Table 4.6-7, below, provides a summary of the project-related effects on LOS, intersection delays, trip volume, and signal warrant merit at all study intersections. The table identifies any project-related effects that would exceed operational intersection thresholds and indicates conditions that would be considered potential significant effects based on applicable agency regulations.

Table 4.6-7. Existing with Project Intersection Levels of Service

	Intersection	Peak Hour[1]	Existing Conditions		Existing with Project Conditions		Net Trips Added	Signal Warrant Met?[3]		Impact?[4]		
			Delay[2]	LOS	Delay[2]	LOS		Without Project	With Project	TSM	SLO	CT
1	Highland Drive/ Santa Rosa Street	AM	24.6	C	24.7	C	7	N/A	N/A	No	No	No
		PM	30.6	C	32.3	C	76			No	No	No
2	Foothill Boulevard/ Santa Rosa Street	AM	**37.8**	**D**	**37.8**	**D**	7	N/A	N/A	No	No	**Yes**
		PM	**45.9**	**D**	**46.4**	**D**	79			No	No	**Yes**
3	Olive Street/ Santa Rosa Street	AM	11.9	B	11.8	B	5	N/A	N/A	No	No	No
		PM	11.3	B	11.4	B	61			No	No	No
4	Walnut Street/ Santa Rosa Street	AM	**35.8**	**D**	**34.8**	**C**	5	N/A	N/A	No	No	**Yes**
		PM	23.9	C	24.0	C	57			No	No	No
5	Foothill Boulevard/ California Boulevard	AM	30.8	C	30.8	C	-4	N/A	N/A	No	No	N/A
		PM	45.7	C	47.1	D	53			No	No	
6	Taft Street/ California Boulevard	AM	32.0	D	31.5	D	-5	**Yes**	**Yes**	No	No	N/A
		PM	**>180**	**F**	**>180**	**F**	45	**Yes**	**Yes**	No	No	
7	US 101 Northbound Ramps/ California Boulevard	AM	**35.8**	**E**	**35.6**	**E**	-2	**Yes**	**Yes**	No	No	No
		PM	**66.2**	**F**	**74.4**	**F**	38	**Yes**	**Yes**	No	No	**Yes**

Notes:
[1] AM = morning peak hour, PM = afternoon peak hour.
[2] Signalized intersections: whole-intersection average vehicle control delay. Unsignalized intersections: worst side street approach average control delay
[3] California MUTCD Section 4C.04: Signal Warrant #3 – Peak Hour Warrant
[4] TSM = CSU TSM guidelines, SLO = City of San Luis Obispo guidelines, CT = Caltrans guidelines
Bold indicates deficient intersection operations. **Bold and highlighted** indicates a significant impact.

Source: Fehr & Peers, November 2013.

Mitigation Analysis

Impacts to intersections are a result of redistribution of parking trips. The TIA discusses various potential mitigation options, including the provision of additional general and residential parking on-site to reduce the number of trips redistributed, a Transportation Demand Management (TDM) Program (with monitoring) to reduce the number of trips, and other standard traffic mitigation options to reduce trips or accommodate additional capacity. However, the likely success and feasibility of these measures is difficult to establish at this time due to the nature of the proposed project, as discussed below.

On-Site Parking Replacement

Additional parking replacement at the project site would encourage trips to campus to be made using existing travel patterns, thus reducing the redistribution to California Boulevard and Santa Rosa Street and reducing impacts on intersections along those streets. Cal Poly staff has indicated that a parking area of up to 500 spaces at the project site may be possible, as referenced in the Project Description. At this time, however, the ultimate feasibility of a 500-space parking area has not yet been determined.

Development of a 500-space parking area alone would not be sufficient to mitigate project-related impacts at nearby intersections to a less than significant level, as detailed in the TIA (refer to Appendix F). Incorporating a 500-space garage as part of the project would reduce parking redistribution and lessen the severity of the intersection impacts, but because the project would continue to produce a net addition of trips to impacted study intersections, it would not fully mitigate the intersection impacts to a less than significant level under Caltrans thresholds. In order to reduce potential impacts to less than significant, the project-related trips at affected study intersections currently operating at deficient levels would need to be reduced to zero. The financial feasibility of a 500-space parking structure has yet to be determined; therefore, development of such a structure cannot be counted towards mitigation for the project's impacts.

Transportation Demand Management and Monitoring Program

Cal Poly already implements TDM measures that could be enhanced and improved upon by expanding the current program. The University could also implement additional TDM measures. Available TDM measures include: modifications to the number or price of residential parking permits; an expansion of existing carsharing or ridesharing programs; development of bicycle and pedestrian improvements to areas of high trip attraction; and development of increased amenities on campus to reduce the need for off-campus travel by students and faculty.

Pursuant to the Caltrans thresholds identified above, the addition of even one trip to an intersection that currently operates at an unacceptable LOS would be considered a potentially significant impact. Therefore, implementation of any recommended TDM program would need to be monitored to ensure compliance with the strict zero net trip increase threshold at the impacted study intersections.

A combination of on-site parking replacement and a monitored TDM program could produce intersection impacts that are less than significant with mitigation. However, because the project site plan has not been finalized and the level of parking replacement on-site is still to be determined, development of a TDM and monitoring plan of appropriate detail and scope is not possible at this time. Upon finalization of the project site plan and determination of the feasible number of parking spaces that can be provided on site, it may be conclusively established that

appropriate mitigation is available to reduce significant impacts to intersections. However, because the effects of the TDM measures cannot be fully developed and quantified at this time, significant impacts to intersections in the project vicinity would remain *significant and unavoidable (Class I)*.

Other standard mitigation measures were also considered to reduce impacts to intersections, including reducing the project size, physical improvements to roadways, and payment of in lieu fees. These measures are typically considered as an integral component of traffic studies for other development projects; however, their implementation may not be feasible or appropriate due to the unique nature of this project.

Reduced projects are typically addressed as alternatives (refer to Chapter 5, Alternatives Analysis). In this case, a reduced project would lessen the beneficial commute trip reduction associated with moving students onto campus, potentially exacerbating intersection impacts. For this reason, implementation of a reduced size project as mitigation would not be feasible.

Intersection improvements, including widening Santa Rosa Street to three lanes in each direction, would improve affected intersection operations, but would not reduce the number of project-related trips traveling through the intersections. Physical improvements may also have secondary impacts associated with the improvement, such as increasing pedestrian crossing distances. Increasing the crossing distances would necessitate signal timing adjustments along the corridor which may lead to degradation in intersection operations. Widening could also be physically infeasible in constrained areas.

Physical improvements could be funded through CSU fair-share percentage contribution to the costs to construct identified improvements. However, since an established City capital program for addressing such improvements is not in place, the potential impacts to intersections are identified as *significant and unavoidable (Class I)*.

Mitigation options are discussed above in an attempt to reduce project impacts. However, because the mitigation will ultimately be formulated by what is determined to be feasible by project design, cost, campus goals, and guidelines in the Master Plan, there is insufficient evidence to assume the mitigation options will reduce potential impacts to intersections to less than significant levels under Caltrans thresholds. Therefore, potential impacts to intersections are identified as *significant and unavoidable (Class I)*.

TC Impact 1
The project would result in a loss of campus parking and the redistribution of trips to alternative parking lots in the project area, which would add trips to streets and intersections in the project vicinity. The additional trips could result in an exceedance of acceptable operational standards at intersections in the project vicinity, resulting in a potentially significant environmental impact.
Mitigation Measures
No mitigation is identified.
Residual Impacts
Several mitigation options are discussed in the impact analysis; however, implementation of the proposed measures may be infeasible due to lack of jurisdictional authority, infeasibility, or lack of certainty. Therefore, despite implementation of this mitigation, residual impacts are considered *significant and unavoidable (Class I)*.

4.6.5.2 Pedestrian and Bicycle Facilities

On-Campus

Pedestrian connections to other areas on campus from the project site are currently provided by sidewalks along Grand Avenue and an undercrossing below the Grand Avenue Parking Structure entrance. Bicycle access would be provided by the Grand Avenue Parking Structure undercrossing and bike lanes along Grand Avenue. Due to the more direct route provided by the Grand Avenue Parking Structure undercrossing, it is anticipated that the majority of residents traveling to destinations on campus from the project site would use this route.

Although this is likely the preferred route of existing users for the same reason, the peak traffic that would result from the proposed project would be higher than current traffic associated with parking at the site. Peak AM and PM traffic hours may generate some congestion along this route, but the effect is not expected to be significant. There are multiple routes in the immediate vicinity that are available for foot and bicycle access to the campus core, and trips in and out of the project site through this area would vary based on class schedules and destination points on campus. The overall increase in pedestrian and bicycle traffic would not result in substantial congestion or significantly impact internal campus circulation. Impacts are considered *less than significant (Class III*).

Pedestrian trips to areas other than the campus core would be handled by the surrounding sidewalk network. Sidewalks are currently not provided along the north side of Slack Street from Grand Avenue to Longview Lane. Increased pedestrian flows in this area could lead to a safety hazard due to the lack of a convenient pedestrian route along the southern perimeter of the site. Therefore, potential impacts would be *less than significant with mitigation (Class II)*.

TC Impact 2	
The addition of 1,475 students at the project location would substantially increase pedestrian trips on surrounding streets, resulting in potential safety hazards due to the lack of standard sidewalks along the project perimeter.	
Mitigation Measures	
TC/mm-1	*Prior to final plan approval, Cal Poly shall develop and incorporate into project design plans a pedestrian management plan. As project specifications, the plan should include the following pedestrian improvements. All pedestrian improvements shall be designed in consultation with a qualified traffic engineer and shall meet or exceed applicable standards for the development of similar structures.* *a. Sidewalks should be provided around the frontage of the project site, including along Pacheco Way and along the north side of Slack Street.* *b. Marked crosswalks should be provided to transition pedestrians from the existing off-site sidewalk network to the on-site pedestrian facility network. The location of crosswalks should be determined in consultation with a qualified traffic engineer and should be sited to sufficiently deter pedestrians from leaving separated pedestrian facilities and entering surrounding roadways to access adjacent areas.* *c. Forecasted heavily traveled pedestrian areas, such as the Pacheco Way pedestrian crossing that provides access to the campus core, should be identified. The need to implement feasible measures to improve visibility of the facilities and promote comfortable walking and bicycling access to other areas of the campus shall be discussed. Recommendations shall be made by a qualified traffic engineer as to the need for such improvements, which could include enhanced bulbouts, raised crossings, lighting, or similar features.*

TC Impact 2
Residual Impacts
The addition of these sidewalks and crosswalks would deter pedestrians from using surrounding roadways when entering and leaving the site by providing a complete system of separate pedestrian facilities both on- and off-site. Therefore, potential impacts would be mitigated to *less than significant (Class II)*.

Off-Campus

The project does not increase enrollment; a portion of the students housed on-site may, therefore, be pedestrians or cyclists. The development of housing in this location may result in a localized increase in pedestrian and bicycle activity, particularly in those areas that front an arterial roadway. Off-campus pedestrian and bicycle trips associated with the project would be concentrated along Grand Avenue and, via internal campus roads, California Boulevard, and Foothill Boulevard, as those streets are equipped with pedestrian and bicycle facilities and provide more convenient connections.

The project would result in a reduction in peak hour vehicle trips through the Grand Avenue campus gateway. The reduction in commuter trips would ultimately provide a more comfortable travel environment in the local area as the number of potential conflicts during the periods of heaviest vehicle travel would be reduced.

Substantial bicycle facilities exist in the project vicinity as described in Section 4.6.1.2, above, and would provide adequate connection to areas where trips are likely to occur, including downtown San Luis Obispo, surrounding parks and recreational areas, and surrounding arterial roadways and access routes.

Therefore, potential impacts associated with pedestrian and bicycle use of areas surrounding the project site would be *less than significant (Class III)*.

4.6.5.3 Public Transit Facilities

Fixed-route bus service currently operates near the project site with stops located within walking distance of the proposed development. Overall student enrollment is not expected to increase as part of the project; therefore peak hour transit ridership is not expected to increase. As more students would live on campus, there is a high likelihood that commute transit trips will be reduced similar to the reduction in peak hour automobile commute trips. Therefore impacts to transit would be *less than significant (Class III)*.

4.6.5.4 Site Design Criteria

Parking Capacity

Based on parking information provided in the TIA, including empty space counts taken by the University Police Department, the campus has enough available total parking supply to meet demand with the removal of the G-1 and R-2/G-4 parking areas. The Grand Avenue parking structure will likely fill to capacity during the peak periods of parking demand, which will result in vehicles circulating in the garage to find spaces, or circulating through campus to reach the parking lots at the north end of campus with available capacity.

The H-1 parking lot is located far from the campus core; drivers tend to park closest to their final destination, which suggests that the H-1 lot will continue to be underutilized even as Lots H-12, H-14, and H-16 approach capacity.

The analysis of current residential parking supply and demand to be shifted shows that there is adequate capacity to handle the shift of 425 resident parking vehicles in the AM and 445 resident parking vehicles in the PM. Residents may need to park in lots farther away from their residence halls as demand redistributes between the R-1, R-3, and R-4 parking areas. However, the current supply of resident parking is not adequate to handle both the current demand and new demand generated by the project (401 spaces). The net deficiency in residential parking supply on campus is 42 spaces in the morning and 24 spaces in the afternoon. The University has the discretion to modify the residential parking supply (for example, by redesignating general spaces in underutilized lots for residential use) or residential parking policies and programs to ensure that supply does not exceed demand. Effects associated with the residential parking supply shortage would be *less than significant (Class III)*.

Site Access

Primary on-site vehicular access would be provided via Grand Avenue and the northern access road to the Grand Avenue Parking Structure. Secondary access would be from Pacheco Way. Emergency and service access will be provided from several points through the site. The University is required, under existing regulations, to document sufficient emergency access, subject to a determination by the State Fire Marshal. Compliance with existing regulations will ensure impacts are *less than significant (Class III)*.

4.6.5.5 Short-Term, Construction-Related Traffic

Construction of the project will generate ongoing traffic associated with worker vehicles, equipment delivery and use, and materials delivery and haul-off. Volumes will vary depending on the stage of construction. The project incorporates mitigation from the Master Plan, outlined in Appendix B, which includes the following:

> ***Circulation Plan.*** *Where vehicle and pedestrian routes and residential areas conflict with construction activities, a circulation plan will be developed, which will include warning signs and detours, as well as efforts to minimize noise in residential areas.*

Compliance with existing regulations will be sufficient to address impacts related to circulation during construction. Impacts are considered *less than significant (Class III*).

4.6.6 Cumulative Impacts

Cumulative Intersection Impacts

Cumulative project-related impacts were assessed by comparing cumulative “without project” traffic volumes with cumulative “with project” traffic volumes to determine the level of impact the project would have under a cumulative setting. The cumulative scenario consists of forecasts promulgated by the City. Table 4.6-8, below, summarizes the results of the cumulative comparison.

Based on the impact criteria listed in Section 4.6.3.1, above, the proposed project will have a significant impact at four study intersections within the city:

- Highland Drive / Santa Rosa Street (AM and PM peak hours) – The addition of project traffic under Cumulative with Project Conditions exacerbates unacceptable intersection operations during the AM and PM peak hour per the Caltrans LOS criteria. The net addition of project trips results in a significant impact at this intersection.
- Foothill Boulevard / Santa Rosa Street (AM and PM peak hours) – The addition of project traffic under Cumulative with Project Conditions exacerbates unacceptable intersection operations during the AM and PM peak hour per the CSU, City, and Caltrans LOS criteria. Under the City and Caltrans impact significance criteria, the net addition of project trips results in a significant impact at this intersection. Likewise, the project adds more than 10 trips through the intersection and causes an increase in delay greater than 5.0 seconds during the PM peak hour. Therefore, the project contributes to a significant impact under the CSU criteria as well.
- Walnut Street / Santa Rosa Street (AM and PM peak hours) – The addition of project traffic under Cumulative with Project Conditions exacerbates unacceptable intersection operations during the AM and PM peak hour per the Caltrans LOS criteria. Under the Caltrans impact significance criteria, the net addition of project trips results in a significant impact at this intersection. For the AM peak hour, the project also exceeds the significance criteria for the City as it adds trips through an intersection at LOS E.
- US 101 Northbound Ramps / California Boulevard (PM peak hour) – The addition of project traffic under Cumulative with Project Conditions exacerbates unacceptable intersection operations during the PM peak hour. Under the City criteria, the impact is less than significant as the intersection meets signal warrants under both the Existing and Existing with Project scenarios. Under the Caltrans impact significance criteria, the net addition of project trips results in a significant impact at this intersection.

Mitigation to minimize these impacts is discussed in Section 4.6.5.1, above. However, mitigation is insufficient to reduce project-specific impacts to a less than significant level. Therefore, cumulative impacts are likewise considered *significant and unavoidable (Class I)*.

TC Impact 3
The project will have significant impacts when considered along with cumulative development.
Mitigation Measures
No mitigation is identified.
Residual Impacts
The proposed mitigation measures would reduce additional trips on adjacent intersections and resulting impacts. However, implementation of the proposed measures may be infeasible due to lack of jurisdictional authority, infeasibility, or lack of certainty. Therefore, despite implementation of this mitigation, residual impacts are considered *significant and unavoidable (Class I)*.

Table 4.6-8. Cumulative Conditions Intersection Levels of Service

	Intersection	Peak Hour[1]	Cumulative Conditions		Cumulative with Project Conditions		Net Trips Added	Signal Warrant Met?[3]		Impact?[4]		
			Delay[2]	LOS	Delay[2]	LOS		Without Project	With Project	TSM	SLO	CT
1	Highland Drive/ Santa Rosa Street	AM	**39.9**	D	**40.2**	**D**	7	N/A	N/A	No	No	**Yes**
		PM	**37.1**	D	**37.9**	**D**	76			No	No	**Yes**
2	Foothill Boulevard/ Santa Rosa Street	AM	**90.8**	**F**	**90.5**	**F**	7	N/A	N/A	No	**Yes**	**Yes**
		PM	**88.6**	**F**	**96.4**	**F**	79			**Yes**	**Yes**	**Yes**
3	Olive Street/ Santa Rosa Street	AM	11.8	B	11.8	B	5	N/A	N/A	No	No	No
		PM	20.0	B	20.1	C	61			No	No	No
4	Walnut Street/ Santa Rosa Street	AM	**56.1**	**E**	**54.8**	**D**	5	N/A	N/A	No	**Yes**	**Yes**
		PM	**35.1**	**D**	**35.4**	**D**	57			No	No	**Yes**
5	Foothill Boulevard/ California Boulevard	AM	35.4	C	35.4	D	-4	N/A	N/A	No	No	N/A
		PM	44.2	D	44.7	D	53			No	No	
6	Taft Street/ California Boulevard	AM	**>180**	**F**	**>180**	**F**	-5	**Yes**	**Yes**	No	No	N/A
		PM	**>180**	**F**	**>180**	**F**	45	**Yes**	**Yes**	No	No	
7	US 101 Northbound Ramps/ California Boulevard	AM	**100.3**	**F**	**98.6**	**F**	-2	**Yes**	**Yes**	No	No	No
		PM	**>180**	**F**	**>180**	**F**	38	**Yes**	**Yes**	No	No	**Yes**

Notes:
[1] AM = morning peak hour, PM = afternoon peak hour.
[2] Signalized intersections: whole-intersection average vehicle control delay. Unsignalized intersections: worst side street approach average control delay
[3] California MUTCD Section 4C.04: Signal Warrant #3 – Peak Hour Warrant
[4] TSM = CSU TSM guidelines, SLO = City of San Luis Obispo guidelines, CT = Caltrans guidelines
Bold indicates deficient intersection operations. **Bold and highlighted** indicates a significant impact.

Source: Fehr & Peers, November 2013.

Cumulative Pedestrian, Bicycle and Transit Impacts

The project is not expected to result in a substantial contribution to cumulative impacts to pedestrian, bicycle, or transit facilities in the project area. Substantive development in the vicinity, which may contribute bicycle and pedestrian trips, is not anticipated. The project does not propose any increase in campus enrollment, but would rather constitute a shift and redistribution in the use of existing pedestrian, bicycle and transit resources. Therefore, cumulative impacts to pedestrian, bicycle, and transit facilities would be *less than significant (Class III)*.

Access

Impacts related to access are site-specific. No significant cumulative impacts related to emergency or vehicle access would occur (*Class III*).

4.7 UTILITIES

This section of the EIR discusses utilities, including water and wastewater, and the impacts of increased demand for utilities services resulting from the project.

Impacts to water supplies are based on the project-specific Water Supply Assessment (SWCA 2013) prepared for the project, included as Appendix G of this EIR.

4.7.1 Existing Conditions

4.7.1.1 Water

The University obtains water from both surface and groundwater sources. Cal Poly owns 33% capacity in Whale Rock Reservoir, located east of the town of Cayucos. The 33% ownership translates into approximately 13,707 acre feet (AF) in normal years. The City, which also has ownership in the reservoir, has modeled safe annual yields (SAY) for water users. The SAY for Cal Poly's share is currently estimated at 1,384 AF per year (AFY). Average total demand for the last 3 years on record is 1,071 AF. Agricultural and landscape irrigation demand is a significant portion of the total; average agricultural demand for the same period was 501 AF (47% of total) and annual water demand for irrigation averaged 280 AF (26%). Approximately 288 AFY (27%) was used for indoor or domestic purposes during that period. The current water surplus for Whale Rock Reservoir averages 313 AFY, 560 AFY for the entire campus when groundwater supplies are included.

Groundwater is obtained from two wells supplied by the San Luis Obispo Valley Groundwater Basin (Stenner Creek Sub-basin). The San Luis Obispo Valley Groundwater Basin (Stenner Creek Sub-basin) is the source of groundwater currently used on the main campus. Information regarding the groundwater basin serving the campus can be found in Appendix G. The basin is not adjudicated, in overdraft or otherwise under a groundwater management plan. The sustained yield of the basin is 5,900 AFY; current extractions total approximately 5,800 AFY. Groundwater pumping capacity is therefore limited only by existing pumping infrastructure. Average withdrawals are estimated at approximately 250 AFY, including a low of 86 AF in 1997-1998 and a high of 590 AF in 2002-2003. Meters have recently been installed on the two wells, and withdrawals have been measured at approximately 125 AF for the last year. Total pumping capacity is currently being assessed. Groundwater is used for non-potable demand (agriculture and irrigation) only. The University lacks treatment infrastructure required to make this source potable.

According to the most recent Sustainability Report (2012), and a Water Supply Assessment prepared for the project (included in Appendix G), significant increases in both domestic and institutional square footage in recent years have not resulted in substantive increases in total water demand. The Sustainability Report credits installation of water-saving fixtures and upgrades in infrastructure among other measures for the relatively small increase in total demand.

Water from Whale Rock Reservoir is treated at the Stenner Canyon water treatment facility. Peak treatment capacity is 16 million gallons per day (mgd). Water treated at the plant comes from Whale Rock Reservoir, the Nacimiento Water Project, or the Salinas Reservoir. Cal Poly is entitled to 1,000 AFY in treatment at the plant. Domestic demand from the plant has averaged 568 AFY in the last 3 years, or 57% of Cal Poly's capacity.

Projects under construction which are not represented in the existing demand are as follows:

- Wine and Viticulture Center (22,000 square feet of production/lab/office space in planning) – consolidation of existing functions and (3) new staff
- Center for Science (completed in 2013) – (11) additional students, (0) additional staff
- Recreation Center (completed 2012) – minor increase in professional staff, mainly student staff

Renovation of the Center for Science is expected to yield significant improvements in water efficiency due to upgraded lab spaces, infrastructure, and fixtures. The Recreation Center renovation was likewise completed with significant water conservation features. The Wine and Viticulture Center consolidates existing operations on campus. Potential increases in enrollment and staff are included in estimates for baseline year 2015.

The project is required to provide sufficient water flow for fire protection. Based on preliminary analysis, the University has adequate "fire flow" at the project site.

4.7.1.2 Wastewater

The City provides wastewater collection and treatment services to the University through a contractual agreement, which provides Cal Poly a share of the City's sewer collection and treatment infrastructure. The University is responsible for providing and maintaining collections infrastructure on campus. Campus wastewater is collected via internal infrastructure which terminates at a main in California Boulevard. The City meters flow at the main, where campus infrastructure ties into City lines. The City's wastewater treatment plant is located at Prado Road. Existing plant capacity totals 5.1 million gallons per day (mgd). Current citywide flows, including Cal Poly, total approximately 4.2 mgd. Cal Poly's current share totals approximately 0.471 mgd, calculated as a monthly average. Cal Poly's average daily flow, calculated annually, is currently 0.251 mgd; peak flow months total 0.313 mgd.

4.7.2 Regulatory Setting

4.7.2.1 Federal and State Regulations

California Building Code/California Plumbing Code

Water and wastewater system design parameters are regulated by the California Building Code (CBC) and the California Plumbing Code (CPC). The CSU is required to construct and maintain facilities in compliance with existing code. The CSU coordinates with the Department of the State Architect, and the State Fire Marshal in determining code compliance.

Senate Bill 610 Urban Water Management Planning Act

Senate Bill (SB) 610 was passed on January 1, 2002, amending California law to require detailed analysis of water supply availability for large development projects. The primary purpose of SB610 is to improve the linkage between water and land use planning by ensuring greater communication between water providers and local planning agencies, and ensuring that land use decisions for certain large development projects are fully informed as to whether sufficient water supplies are available to meet project demands. The lead agency for the project is required to identify the public water system that might supply water to the project and then to request a Water Supply Assessment from the water supplier. If there is no public water system and the project meets the definition of "project" as defined in SB610, then the lead agency must prepare the assessment.

4.7.2.2 Local Regulations

Regional Water Quality Control Board

Water quality standards for receiving waters are set by the RWQCB in the Water Quality Control Plan, Central Coast Basin. In part to comply with water quality goals, the University adopted and maintains a Water Quality Management Plan (2005) which was adopted by the RWQCB. The University monitors groundwater and creek flow for several parameters, including nitrates and biological oxygen demand (BOD). Although specific criteria fluctuate, the University has generally been in conformance with adopted standards, with limited exceedances.

University Sustainability Goals

As part of general efforts to reduce water use, Cal Poly has been working to improve water efficiency throughout the domestic and agriculture/irrigation systems.

4.7.3 Thresholds of Significance

The thresholds of significance are based on the criteria set forth in Appendix G of the CEQA Guidelines. According to those criteria, a project would result in a significant utilities impact if it would:

1. Exceed wastewater treatment requirements of the applicable Regional Water Quality Control Board.

2. Require or result in the construction of new water or wastewater treatment facilities or expansion of existing facilities, the construction of which could cause significant environmental effects.

3. Require or result in the construction of new stormwater drainage facilities or expansion of existing facilities, the construction of which could have significant environmental effects.

4. Have sufficient water supplies available to serve the project from existing entitlements and resources, or are new or expanded entitlements necessary.

5. Result in a determination by the wastewater treatment provider which serves or may serve the project that it has adequate capacity to serve the project's projected demand in addition to the provider's existing commitments.

Impacts are also considered significant if the project would require upgrades to existing power infrastructure the construction of which would have significant environmental effects.

4.7.4 Impact Assessment and Methodology

Potential water, wastewater and power infrastructure impacts were determined based on quantification of potential demand, compared to existing utilities use. Impacts related to water supply were evaluated through a Water Supply Assessment (refer to Appendix G), prepared in compliance with the provisions of SB610. Wastewater volumes were calculated based on existing data, and compared to available capacity. Impacts to power infrastructure were based on engineering studies performed for the project design.

4.7.5 Project-specific Impacts and Mitigation Measures

4.7.5.1 Wastewater Treatment Requirements

Exceedance of wastewater treatment requirements can occur when (a) the proposed use generates wastewater with a composition that requires advanced or alternative treatment techniques, or (b) the volume of wastewater generated exceeds available capacity, resulting in insufficient treatment. The proposed use includes parking, residences and ancillary facilities. Parking will not generate wastewater. Residences are not considered a type of land use which would require alterations in wastewater treatment techniques. The types of ancillary facilities proposed include offices, a coffee house, and mechanical and other support facilities for the residences. The rates for staff and residences are inclusive of ancillary facilities. Construction washwater and other potential sources of wastewater will be confined to the site and will not be disposed of into the community wastewater system. Portable toilets will be installed and maintained as needed. Wastewater generated by the project is calculated in Table 4.7-1

Table 4.7-1. Proposed Project Wastewater Generation

Land Use	Units	Generation Factor	Total (mgd)
Current Disposal			0.313
Pipeline Projects *	14 staff and students	20 gpd	0.00028
Current Baseline			0.313
Student Housing South	1,475	50 gpd	0.074
Less Existing Students	1,475	20 gpd	(0.030)
Total Project Generation			***0.357***
Total Current Share			***0.471***
(Deficit)/Surplus			**0.114**

* Currently Approved Projects, including Wine and Viticulture, and the Center for Science = 14 FTE/Staff at 20 gpd

Sufficient capacity exists within both the University's share and the City's treatment plant for the total wastewater projected. The project would not create conditions in the waste stream which would adversely affect treatment processes or requirements. Impacts are considered *less than significant (Class III)*.

4.7.5.2 Construction of New Water or Wastewater Treatment Facilities

Based on the discussion above and below in Section 4.8.5.5, there is sufficient capacity within existing water facilities, water treatment facilities, and wastewater treatment facilities to serve the proposed project. The project will not create the need for new water or wastewater treatment facilities. Impacts are considered *less than significant (Class III)*.

4.7.5.3 Construction of New Water, Wastewater, and Stormwater Infrastructure

The development of the site will include new water, wastewater, and stormwater infrastructure. Each is discussed in the following paragraphs:

Water

Existing water service on site is limited to irrigation for landscaped areas. Trunk lines exist within Grand Avenue. Sufficient flow exists within the trunk lines to serve the project. New water

infrastructure will be required throughout the site to serve individual buildings and new landscaping.

Wastewater

There is no wastewater infrastructure on site. Main collection lines exist in Grand Avenue. The project will either force main to Grand Avenue, which connects to the City tie-in at California Boulevard, or will gravity flow through new lines extending from the site past the Recreation Center to the California Boulevard main. Gravity flow would require trenching through campus approximately 3,700 linear feet.

Stormwater

Stormwater currently sheet flows across the site to scattered drainage inlets. The proposed site plan includes substantive new stormwater infrastructure. Proposed infrastructure is designed to comply with Low Impact Development (LID) Guidelines established by the RWQCB. These guidelines generally require on site retention and infiltration of stormwater. The proposed site plan includes several features designed to ensure compliance, including:

- Approximately 1,000 linear feet of bioswale, with site grading designed to maximize flow to the bioswale feature;
- Extensive tree planting;
- Limited use of paving, including permeable paving and pavers, which allow infiltration; and,
- Greenspace.

Proposed hard-pipe stormwater infrastructure is limited to relocated drainage lines to serve existing development east of the site, and new connecting lines to serve individual buildings.

The construction of proposed infrastructure will not occur entirely within the confines of the site. Trenching new wastewater lines through campus would incrementally increase impacts related to air quality and erosion. Project mitigation measures would apply and impacts would be reduced to a less than significant level, except for air quality, where the activity would incrementally contribute to significant construction air quality impacts.

4.7.5.4 Construction of New Power Infrastructure

The University purchases power from PG&E's standard mix. The University doubled the capacity of its substation during construction of the Poly Canyon Village project, and has sufficient capacity for the proposed project (Joel Neel, Facilities Planning and Capital Projects Director, personal communication 2013). The project will use existing pathways on campus for power transmission; new transformers and distribution systems will be installed on site. Impacts related to the construction of power infrastructure are as described for the larger project throughout the document.

4.7.5.5 Sufficiency of Water Supplies

The project would result in up to 1,475 beds of new housing on campus. The project would not increase enrollment; therefore, the project would "capture" a portion of the existing water demand from current students. Table 4.7-2 outlines the water demand associated with the project. Total residential demand (the average indoor demand for the last 3 years on record

divided by the total bed count [6,902]) is discounted by the existing student demand to achieve the total indoor or domestic water demand resulting from the project. Irrigation is calculated conservatively at 1.4 AFY per acre, the amount required for turf grass. Per bed demand is inclusive of ancillary facilities. Actual demand for irrigation will be reduced as project landscaping matures, since a significant portion of the landscaping is dedicated to trees. Pipeline projects, or those projects currently being built or recently approved by the University and expected to be operational at the time the housing complex opens, are included to determine an accurate Year 1 baseline.

Table 4.7-2. 2015 Projected Demand (Project Year 1)

Use	Number	Demand Factor	Total Water Usage
Existing Domestic (3-Year Average)			289
Student Housing South	1,475	0.04 AFY	59
Existing Students Captured	1,475	0.03 AFY	(44.25)
Pipeline Projects	14 staff and faculty	0.03 AFY	0.42
SHS - Staff/Faculty	30	0.03 AFY	0.9
General Staff and Faculty	20	0.03 AFY	0.6
Enrollment	285	0.03 AFY	8.55
Domestic Total			**314**
Existing Agriculture/Irrigation			782
Irrigation – Student Housing South	5.5 acres	1.4 AFY	7.7
Non-potable Total			**790**
Total Demand			***1,104***
Total Supply			***1,384***
Groundwater			247
Surplus/Deficit			**527**

Notes
(a) Center is consolidation of existing functions, no net water impact.
(b) Project involved significant upgrades in water conserving methodologies, including pool management.
(c) Project involved significant upgrades in water conserving methodologies, including laboratory water use efficiency.

Based on the calculations above, there is sufficient water within existing entitlements to serve the proposed project. Impacts are considered *less than significant (Class III)*.

4.7.5.6 Plan Consistency

The project would develop housing consistent with bedcount predicted in the Master Plan. The project would not conflict with planning for utilities. Impacts are considered *less than significant (Class III*).

4.7.6 Cumulative Impacts

Implementation of the pending and approved projects listed in the cumulative development scenario would increase development on campus and in the immediate area. Cumulative impacts to the University's water allocation have been quantified in the Water Supply Assessment. Currently anticipated campus projects, along with increases in enrollment and staffing have been assessed to determine potential increases in water demand. Based on the Water Supply Assessment, there is sufficient water to serve the campus through 2035 (refer to Table 4.7-3).

Table 4.7-3. Cumulative Water – 2035 Projected Demand

Use	Number	Demand Factor	Total Water Usage
2015 + Project			1,104
Staff/Faculty	363	0.03 AFY	11
Enrollment	6,678	0.03 AFY	200
Total Demand			***1,316***
Total Supply			***1,384***
Groundwater			247
Surplus/Deficit			**314**

Cumulative wastewater generation is determined based on continued enrollment and faculty/staff growth, and additional facilities as projected in the Water Supply Assessment (refer to Table 4.7-4). Factors are applied to determine future generation.

Table 4.7-4. Cumulative Wastewater – 2035

Land Use	Units	Generation Factor	Total (mgd)
Project Year 1			0.357
Staff and Faculty	363	20 gpd	0.007
Enrollment	6,678	20 gpd	0.13
Total Cumulative Generation			***0.494***
Total Current Share			***0.471***
(Deficit)/Surplus			**(0.023)**

Based on the calculations above, there is insufficient allocation to serve the 2035 cumulative scenario. The University will need to purchase additional share prior to 2035. The City has not identified capacity constraints at the plant, in part due to increasing water conservation and improved collection infrastructure. Enrollment projected above is beyond the adopted Master Plan, and at a consistent 1.5% per year rate, which has not been the historical pattern of enrollment growth on campus. Therefore, this scenario is considered worst-case. However, the University can mitigate impacts by purchasing additional shares in the facility prior to exceedance of current agreements. Impacts are considered *less than significant with mitigation (Class II)*.

UTIL Impact 1	
Continued growth on campus will exceed the University's existing share of the wastewater treatment plant by 2035.	
Mitigation Measures	
UTIL/mm-1	*The University will continue to monitor wastewater volumes and purchase additional shares in the treatment plant prior to exceedance of current agreement limits.*
Residual Impacts	
There is sufficient capacity to serve the project, and campus growth, for many years. However, when the 2035 cumulative scenario is considered, along with consistent enrollment and staffing growth, Cal Poly exceeds its fair share. Continued monitoring of wastewater volumes and renegotiation of fair share agreements will reduce cumulative impacts to a *less than significant level (Class III)*. Capacity constraints are not forecast at the City treatment plant in the near future. The City had contemplated capacity increases over the last decade, but has not pursued such plans due to the beneficial effects of water conservation and collection system infrastructure (reduced infiltration and inflow (I&I)) on plant capacity.	

Cumulative impacts to power infrastructure are difficult to define. PG&E's power service and mix is affected by regional growth, facilities outages and maintenance, and even climate change. The University has sufficient infrastructure to accommodate projected growth, and has made significant improvements in the efficiency of buildings.

Potential impacts related to stormwater are site-specific, and mitigation measures are applied to each project to minimize the potential for significant impacts. All development projects are required to comply with State and local regulations regarding stormwater management; therefore, no cumulative impacts related to this issue have been identified. No significant cumulative impacts have been identified, except for mitigable impacts related to wastewater. Capacity constraints are not forecast at the City treatment plant in the near future. The City had contemplated capacity increases over the last decade, but has not pursued such plans due to the beneficial effects of water conservation and improvements to collection system infrastructure (reduced infiltration and inflow (I&I)) on plant capacity. The University continually monitors wastewater flow and may renegotiate agreements with the City for either existing or expanded capacity. The contribution of the project is not considered cumulatively considerable, when mitigated.

4.8 ISSUE AREAS WITH LESS THAN SIGNIFICANT IMPACTS

The Initial Study and further environmental review through the EIR process have evaluated the proposed project and determined that the project would result in less than significant impacts to the following areas: agricultural and forestry resources, biological resources, cultural resources, hazards and hazardous materials, hydrology and water quality, mineral resources, public services (excepting fire and police), and recreation (on campus recreation). These issues are briefly described in the following sections, limited mitigation is recommended, and an explanation as to why impacts were determined to be less than significant after mitigation (if any) for the given resource is provided.

4.8.1 Agricultural and Forestry Resources

4.8.1.1 Existing Conditions

The University extends over 6,000 acres in San Luis Obispo and Monterey Counties, with a significant portion of its landholdings devoted to agriculture. The University has extensive livestock operations, which graze on University ranches, and cultivated croplands including vineyards, row crops, and orchards, in addition to more intensive agricultural facilities such as feedlots. University agricultural operations are located generally in the northern portions of the San Luis Obispo campus, northwest of California Boulevard and north of Highland Drive.

While the University is a significant local agricultural producer, the project site is located in a portion of campus which is distant from campus agricultural and grazing lands. There are no agricultural activities occurring on the proposed project site. Agricultural activity in the area is limited to intermittent grazing of undeveloped fields east of Grand Avenue. The project site is developed as a surface parking lot and is located in an area of other campus development. Onsite soils consist of undocumented fill, with unknown but presumably limited agricultural value.

4.8.1.2 Regulatory Setting

Several state laws and regional plans have been enacted to support agricultural production and conservation of agricultural resources and lands, including the California Land Conservation Act (Williamson Act). These regulations are not directly applicable to the proposed project because no agricultural lands or Williamson Act lands are present onsite and because the project is within the developed campus instructional core.

4.8.1.3 Thresholds of Significance

The significance of potential agricultural impacts is based on thresholds identified within Appendix G of the CEQA Guidelines, which provide the following thresholds for determining impact significance with respect to agricultural resources. Agricultural impacts would be considered significant if the proposed project would:

1. Convert prime agricultural land to non-agricultural use;

2. Impair agricultural use of other property or result in conversion to other uses;

3. Conflict with existing zoning or Williamson Act program.

4.8.1.4 Impact Assessment and Methodology

Impacts to agricultural resources were assessed by utilizing data and maps published by the USDA, NRCS, and California Department of Conservation (DOC), including soil information, farmland mapping, and economic data. The project was analyzed for potential conversion of important farmland, loss of productive agricultural soils, incompatible land uses, and inconsistencies with regulations and policies intended to preserve agricultural resources.

4.8.1.5 Project-specific Impacts and Mitigation Measures

Convert Prime Agricultural Land to Non-Agricultural Use

The project is located in a non-agricultural area with no agricultural activities occurring at or adjacent to the project site. The project site is classified as Urban and Built-Up Land by the DOC, Division of Land Resource Protection's Farmland Monitoring and Mapping Program (DOC 2008). No important farmland would be converted to non-agricultural use; therefore, there would be no impact.

Impair Agricultural Use of Other Property or Result in Conversion to Other Uses

No agricultural uses occur in the immediate vicinity of the project site; agricultural use in the area is limited to grazing on undeveloped acreage east of Grand Avenue. Based on the location of the project, it would not impair agricultural use of other properties in the region or result in conversion to non-agricultural uses. Therefore, there would be no impact.

Conflict with Existing Zoning or Williamson Act Program

The project site is within the residential land use category, and is not under Williamson Act contract. No parcels in the project vicinity are within the agricultural land use category or are subject to a Williamson Act contracts. No significant impacts to agricultural resources would to occur.

4.8.1.6 Cumulative Impacts

The project is located within an urban area and would not affect agricultural resources in the vicinity. Therefore, it would not cumulatively contribute to any impacts on agricultural resources.

4.8.2 Biological Resources

4.8.2.1 Existing Conditions

The project site consists of a paved surface parking lot located in the developed campus instructional core. Existing vegetation is limited to trees bordering the parking lot along Pacheco Way, Slack Street, and Grand Avenue. The following tree and shrub species have been identified on site during SWCA field visits:

- blue gum eucalyptus (*Eucalyptus globulus*)
- bottlebrush (*Callistemon* sp.)
- Brazilian pepper tree (*Schinus terebinthifolius*)
- Canary island palm (*Phoenix canariensis*)
- Canary Island pine (*Pinus canariensis*)
- coast redwood (*Sequoia sempervirens*)
- king palm (*Washingtonia filifera*)
- liquidambar (*Liquidambar styraciflua*)
- olive (*Olea europaea*)
- Peruvian pepper tree (*Schinus molle*)
- pittosporum (*Pittosporum undulatum*)
- pride-of-madeira (*Echium nervosum*)
- red flowering gum (*Corymba ficifolia*)

- cork oak (*Quercus suber*)
- cotoneaster (*Cotoneaster horizontalis*)
- toyon (*Heteromeles arbutifolia*)
- velvet ash (*Fraxinus velutina*)

Based on review of campus drainage plans and the Geotechnical Report prepared for the project, there are no drainage features, natural or man made, located on or near the project site. The nearest natural drainage feature is a swale located east of the site, east of the existing visitor's kiosk. The swale drains into subterranean stormwater infrastructure at the kiosk. There are no wetland features on-site or otherwise hydrologically connected to the site. Drainage downslope of the project is via existing urban storm drain infrastructure. The borings performed for the Geotechnical Report indicated no defined subsurface water features on site, although the report noted that the sample year was particularly dry. The site is underlain by undocumented fill and, therefore, subsurface drainage is expected to have been altered from any natural condition.

There are no sensitive or special-status plants or animals expected to occur on site. The majority of the site is paved, and provides no habitat for plants or animals. The borders of the site, which are planted with trees, provide limited nesting opportunities for birds. Special-status plant and animal species are known or suspected to inhabit more undeveloped portions of the University's landholdings; potential for occurrence within the developed campus instructional core is limited to Stenner and Brizzolara Creek.

Limited habitat on site, and the location of the project site within the developed campus core, reduces potential use of the site for migration or movement. Existing mature trees on site provide limited nesting or cover opportunities for individual birds or bats. Red-shouldered hawks (*Buteo lineatus*) and other raptors have been observed in the vicinity.

4.8.2.2 Regulatory Setting

Federal Policies and Regulations

Section 404 of the Clean Water Act of 1977

Pursuant to Section 404 of the Clean Water Act (33 United States Code 1344), the USACE is responsible for the issuance of permits for the placement of dredged or fill material into "waters of the U.S." As defined by USACE at 33 CFR 328.3(a)(parts 1-6), the following summarizes waters of the U.S.:

> *"Those waters that are currently used, or were used in the past, or may be susceptible to use in interstate or foreign commerce, including all waters which are subject to the ebb and flow of the tide; tributaries and impoundments to such waters; all interstate waters including interstate wetlands; and territorial seas."*

Waters of the U.S. are typically identified by the presence of an ordinary high water mark and connectivity to traditional navigable waters or other jurisdictional features. If a project would result in dredge or fill of USACE jurisdictional waters, the project would be subject to USACE review under Section 404 of the Clean Water Act.

Section 401 of the Clean Water Act of 1977

Section 401 of the Clean Water Act and its provisions ensure that federally permitted activities comply with the federal Clean Water Act and state water quality laws. Section 401 is implemented through a review process that is conducted by the RWQCB, and is triggered by the Section 404 permitting process. The RWQCB certifies via the Section 401 process that a

proposed project complies with applicable effluent limitations, water quality standards, and other conditions of California law. Evaluating the effects of the proposed project on both water quality and quantity falls under the jurisdiction of the RWQCB. Proposed project activities that have the potential to result in impacts to water quality and quantity would require certification by the RWQCB.

Federal Endangered Species Act of 1973

The Federal Endangered Species Act (ESA) provides legislation to protect federally listed plant and animal species. Impacts to listed species resulting from the implementation of a project would require the responsible agency or individual to formally consult with the U.S. Fish and Wildlife Service (USFWS) or NOAA National Marine Fisheries Service (NOAA Fisheries) to determine the extent of impact to a particular species. If USFWS or NOAA Fisheries determine that impacts to a species would likely occur, alternatives and measures to avoid or reduce impacts must be identified. USFWS and NOAA Fisheries also regulate activities conducted in federal critical habitat, which are geographic units designated as areas that support primary habitat constituent elements for listed species.

Migratory Bird Treaty Act of 1918

The Migratory Bird Treaty Act (MBTA) protects all migratory birds, including their eggs, nests, and feathers. The MBTA was originally drafted to put an end to the commercial trade in bird feathers, popular in the latter part of the 1800's. The MBTA is enforced by the USFWS, and potential impacts to species protected under the MBTA are evaluated by the USFWS in consultation with other federal agencies. Several migratory bird species were present in the project corridor. If ground disturbing activities were implemented during the nesting bird season, pre-disturbance nesting bird surveys would need to be conducted to avoid impacts to migratory birds.

State Policies and Regulations

California Endangered Species Act

The California Endangered Species Act (CESA) ensures legal protection for plants listed as rare or endangered, and species of wildlife formally listed as endangered or threatened. The state law also lists California Special Concern species based on limited distribution, declining populations, diminishing habitat, or unusual scientific, recreational, or educational value. Under state law, the California Department of Fish and Wildlife (CDFW) is empowered to review projects for their potential to impact state-listed species and California Special Concern species, and their habitats.

Section 1602 of the Fish and Game Code

The CDFW is responsible for conserving, protecting, and managing California's fish, wildlife, and native plant resources. To meet this responsibility, the law requires any person, state or local government agency, or public utility proposing a project that may impact a river, stream, or lake to notify the CDFW before beginning the project. If the CDFW determines that the proposed project may adversely affect existing fish and wildlife resources, a Lake or Streambed Alteration Agreement is required. A Streambed Alteration Agreement lists the CDFW conditions of approval relative to the proposed project, and serves as an agreement between an applicant and the CDFW for a term of not more than five years for the performance of activities subject to this section. A Streambed Alteration Agreement from the CDFW would be required prior to any direct or indirect impact to streambeds, banks, channels or associated riparian resources.

Other Sections of the Fish and Game Code

"Fully Protected" species may not be taken or possessed without a permit from the Fish and Game Commission and/or the CDFW. Information on these species can be found within California Fish and Game Code §3511 (birds), §4700 (mammals), §5050 (reptiles and amphibians), and §5515 (fish) of the Fish and Game Code.

4.8.2.3 Thresholds of Significance

The significance of potential biological impacts is based on Appendix G of the CEQA Guidelines. Biological impacts would be considered significant if the proposed project would:

1. 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;

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

3. 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;

4. Interfere substantially with the movement of any native resident or migratory fish or wildlife species or with established native residents or migratory wildlife corridors, or impede the use of native wildlife nursery sites;

5. Conflict with any local policies or ordinances protection biological resources, such as a tree preservation policy or ordinance;

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

4.8.2.4 Impact Assessment and Methodology

The impact assessment focused on identifying potential project-related impacts associated with implementation of the project, and was based on details presented within the project description. Potential impacts were expected to occur where proposed construction or development activities would result in temporary or permanent modification of sensitive communities or habitats occupied by special-status species. Impacts to biological resources were evaluated by determining the sensitivity, significance, or rarity of each resource that would be adversely affected by the proposed project, and thresholds of significance were applied to determine if the impact constituted a significant impact. The significance threshold may be different for each habitat or species and is based on the resource's rarity or sensitivity and the level of impact that would result from the proposed project. Where potential project-related impacts to sensitive resources were identified, measures for avoiding or minimizing adverse effects to these resources were recommended.

4.8.2.5 Project-specific Impacts and Mitigation Measures

Sensitive or Special-Status Species or their Habitats

The site generally lacks habitat to support sensitive species. Existing trees may provide suitable nesting habitat for birds, including nesting migratory birds, and may provide roosting or foraging habitat for birds or bats. Existing trees will need to be removed in order to allow for implementation of the excavation and grading program proposed for the project. Removal of trees during the nesting season would adversely affect any nesting birds or bats, if present. Mitigation is recommended to address potential impacts.

BR Impact 1	
Tree removal conducted during the nesting season (March through September) could directly or indirectly impact nesting or roosting birds and bat species.	
Mitigation Measures	
BR/mm-1	*Prior to commencement of construction or tree removal, if such activities are scheduled to begin during the typical bird nesting season (from March 1 to August 31) a qualified biologist shall be retained to conduct a pre-construction survey (approximately one week prior to construction) to determine presence/absence for tree nesting birds or bats. If no nesting activities are detected within the proposed work area, construction activities may proceed and no further mitigation is required. If nesting activity on site is confirmed during pre-construction nesting surveys, work activities shall be delayed within 300 feet (500 feet if raptors) of active nests until the young birds have fledged and left the nest. To the extent feasible, tree removal shall be scheduled outside of typical nesting seasons to prevent impacts.*
Residual Impacts	
Due to the presence of mature trees on the project site, mitigation is recommended to ensure and verify avoidance of nesting birds and bats. Although unlikely, nesting birds or bats may occupy mature trees. Implementation of pre-construction surveys will ensure avoidance. Compliance with these measures, and verification by an environmental monitor, will ensure these measures are enforced during construction. Upon completion of the project, no long-term impacts would occur. Potential short-term impacts would be *less than significant with mitigation (Class II)*.	

Wetland or Riparian Habitat

No wetland or riparian habitat is present onsite. Based on the location of the project, impacts to wetland or riparian habitat would not occur.

Barriers to Movement of Resident Species / Wildlife Activity

Suitable cover for movement or wildlife activity on site is restricted to the mature trees planted at the site perimeter. As noted above in BR Impact 1, tree removal during project construction could adversely affect resident and visiting migratory species. The impact is temporary; the project will more than compensate for the tree removal through planting of a substantial number of trees on site. Compliance with the mitigation above will ensure impacts associated with the loss of trees are less than significant (Class II).

Community members have identified concerns with lighting, and its impact on bird migration patterns. Impacts related to lighting are addressed through incorporation of Master Plan mitigation, which generally calls for shielding and downcasting of light, as well as specific

parameters for parking structure lighting, and mitigation outlined in Section 4.1, Aesthetic Resources. The area is already lit; additional measures will help ensure lighting levels do not cause significant impacts. Impacts are considered less than *significant with mitigation (Class II)*.

BR Impact 2
Tree removal and lighting could affect movement patterns of wildlife on site.
Mitigation Measures
Implement BR/mm-1 and AES/mm-2.
Residual Impacts
Due to the presence of mature trees on the project site, mitigation is recommended to ensure and verify avoidance of nesting birds and bats. Although unlikely, nesting birds or bats may occupy mature trees. Implementation of pre-construction surveys will ensure avoidance. Compliance with Master Plan mitigation regarding lighting and additional mitigation outlined in the Aesthetics section will ensure impacts to wildlife associated with potential uplighting are addressed. Compliance with these measures, and verification by an environmental monitor, will ensure these measures are enforced during construction. Impacts would be *less than significant with mitigation (Class II)*.

Conflicts with Plans or Policies

The applicable land use plan is the University Master Plan (2001). The Master Plan takes a multi-pronged approach to the protection of biological resources on University landholdings. First, the Master Plan identified areas of environmental sensitivity and known resources. The land use plan was then developed in response to these and other constraints. Land uses which were deemed less compatible with natural resources protection were directed to already developed portions of the campus instructional core or its fringes. The Master Plan EIR then identified measures for implementation where biological impacts were expected to occur.

The proposed project is located in the developed campus instructional core, on an existing surface parking lot. Development of infill areas is consistent with Master Plan policy for protection of biological resources. Impacts are considered *less than significant (Class III)*.

4.8.2.6 Cumulative Impacts

Based on the location and size of the project, and implementation of recommended mitigation measures, the project would not have any significant residual direct or indirect adverse impacts to sensitive biological resources, including special-status species, habitats, and wildlife. The site is not within an area of sensitive habitat. The project would not significantly contribute to the loss of species or sensitive habitat. Therefore, potential cumulative impacts would be *less than significant (Class III)*.

4.8.3 Cultural Resources

4.8.3.1 Existing Conditions

The site is underlain by fill material and bedrock. There is no evidence of prior occupation of the site with buildings or populations, based on review of aerial photography for the campus, and review of the records search prepared for the Master Plan in 2001. Bedrock on-site consists of

sandstone, shale, and claystone of the Franciscan Melange, which has the potential to yield fossilized remains.

There are no historic or potentially historic structures on site. Based on review of the Master Plan, the nearest potentially historic structures on campus is the President's Residences, located 1,750 feet west of the project site along Campus Way.

4.8.3.2 Regulatory Setting

Federal

National Historic Preservation Act of 1966

Significant archaeological and built environment resources are protected by the National Historic Preservation Act (NHPA) of 1966. Section 106 of the NHPA states that if a federal agency is involved in a proposed project through initiation, funding, and/or issuance of permits, the agency is required to consult with the State Historic Preservation Officer (SHPO).

When a cultural resource is reported to the SHPO, further study and/or preparation of a mitigation and monitoring plan may be required and the resource may be listed in the NRHP. The NRHP is an inventory of the historic resources of the United States and is maintained by the National Park Service. The inventory includes buildings, structures, objects, sites, districts, and archeological resources.

NHPA §106 (16 USC 470f) requires federal agencies to take into account the effects of their undertakings on any site, structure or object that is included in or eligible for inclusion in the NRHP and to afford the Advisory Council on Historic Preservation (ACHP) a reasonable opportunity to comment on such undertakings (36 CFR 800.1). Under §106, the significance of any adversely affected cultural resource is assessed and mitigation measures are proposed to reduce any impacts to an acceptable level. Significant cultural resources are those resources that are listed on, or are eligible for listing on, the NRHP per the criteria listed at 36 CFR 60.4 (ACHP 2000) below.

The quality of significance in American history, architecture, archaeology, engineering, and culture is present in districts, sites, buildings, structures, and objects that possess integrity of location, design, setting, materials, workmanship, feeling and association and that:

- Are associated with events that have made a significant contribution to the broad patterns of our history; or,
- Are associated with the lives of persons significant in our past; or,
- Embody the distinctive characteristics of a type, period, or method of installation, or that represent the work of a master, or that possess high artistic values, or that represent a significant and distinguishable entity whose components may lack individual distinction; or,
- Have yielded, or may be likely to yield, information important in prehistory or history.

Cultural resources are considered during federal undertakings chiefly under §106 of the NHPA through one of its implementing regulations, 36 CFR 800 (Protection of Historic Properties), as well as the National Environmental Policy Act (NEPA) of 1969. Properties of traditional religious and cultural importance to Native Americans are considered under §101(d)(6)(A) of NHPA.

Other relevant federal laws include the Archaeological Data Preservation Act of 1974, American Indian Religious Freedom Act (AIRFA) of 1978, Archaeological Resources Protection Act (ARPA) of 1979, and Native American Graves Protection and Repatriation Act (NAGPRA) of 1989, among others.

State

Office of Historic Preservation

The California Office of Historic Preservation (OHP) is the governmental agency primarily responsible for the statewide administration of the historic preservation program in California. The mission of the OHP and the State Historical Resources Commission, in partnership with the people of California and governmental agencies, is to "preserve and enhance California's irreplaceable historic heritage as a matter of public interest so that its vital legacy of cultural, educational, recreational, aesthetic, economic, social, and environmental benefits will be maintained and enriched for present and future generations." The OHP's responsibilities include:

- Identifying, evaluating, and registering historic properties;
- Ensuring compliance with federal and state regulatory obligations;
- Cooperating with traditional preservation partners while building new alliances with other community organizations and public agencies;
- Encouraging the adoption of economic incentives programs designed to benefit property owners; and,
- Encouraging economic revitalization by promoting a historic preservation ethic through preservation education and public awareness and, most significantly, by demonstrating leadership and stewardship for historic preservation in California.

The Central Coast Information Center is under contract to the OHP and helps implement the California Historical Resources Information System (CHRIS). It integrates information on new resources and known resources into the CHRIS, supplies information on resources and surveys to the government, and supplies lists of consultants qualified to do historic preservation fieldwork within the area. The California Archeological Site Inventory is the collection of Site Records, which has been acquired and managed by the regional Information Centers and the OHP since 1975.

California Register of Historical Resources

California Public Resources Code (PRC) §5024.1 establishes the California Register of Historical Resources (CRHR) and charges the State Historical Resources Commission with overseeing its implementation. It requires that any properties that can be expected to be directly or indirectly affected by a proposed project be evaluated for CRHR eligibility. The purpose of the register is to maintain listings of the state's historical resources and to indicate what properties are to be protected, to the extent prudent and feasible, from material impairment and substantial adverse change. The term "historical resources" includes a resource listed in, or determined to be eligible for listing in, the CRHR, a resource included in a local register of historical resources, and any object, building, structure, site, area, place, record, or manuscript which a lead agency determines to be historically significant (CEQA Guidelines §15064.5[a]). The criteria for listing

properties in the CRHR were expressly developed in accordance with previously established criteria developed for listing in the NRHP.

According to PRC §5024.1(c)(1–4), a resource may be considered historically significant if it retains integrity and meets at least one of the following criteria. A property may be listed in the CRHR if the resource:

a. Is associated with events that have made a significant contribution to the broad patterns of California's history and cultural heritage;

b. Is associated with the lives of persons important in our past;

c. Embodies the distinctive characteristics of a type, period, region or method of installation, or represents the work of an important creative individual, or possesses high artistic values; or,

d. Has yielded, or may be likely to yield, information important in prehistory or history.

Under CEQA, if an archeological site is not a historical resource but meets the definition of a "unique archeological resource" as defined in PRC §21083.2, then it should be treated in accordance with the provisions of that section. A unique archaeological resource is defined as follows:

> *An archaeological artifact, object, or site about which it can be clearly demonstrated that, without merely adding to the current body of knowledge, there is a high probability that it meets any of the following criteria:*
>
> - *Contains information needed to answer important scientific research questions and that there is a demonstrable public interest in that information.*
> - *Has a special and particular quality such as being the oldest of its type or the best available example of its type.*
> - *Is directly associated with a scientifically recognized important prehistoric or historic event or person.*

Resources that neither meet any of these criteria for listing on the CRHR nor qualify as a "unique archaeological resource" under CEQA PRC §21083.2 are viewed as not significant. Under CEQA, "A non-unique archaeological resource need be given no further consideration, other than the simple recording of its existence by the lead agency if it so elects" (PRC §21083.2[h]).

Impacts that adversely alter the significance of a resource listed on or eligible for listing on the CRHR are considered to have a significant effect on the environment. Impacts to historical resources are thus considered significant if the project physically destroys or damages all or part of a resource, changes the character of the use of the resource or a physical feature within the setting of the resource which contributes to its significance, or introduces visual, atmospheric, or audible elements that diminish the integrity of significant features of the resource.

California Environmental Quality Act

CEQA (PRC §21000 et seq.) requires consideration of a project's impacts on significant historical and archaeological resources. Significant impacts on such resources are to be avoided or mitigated to less than significant levels. Other state laws govern actions affecting cemeteries and human remains.

CEQA §15064.5 describes the process for determining the significance of impacts to archeological and historical resources. Any project effect that may cause a substantial adverse change in the significance of an historical resource is potentially significant. Achieving CEQA compliance with regard to treatment of impacts to significant cultural resources requires that a mitigation plan be developed for the resource(s). Preservation in place is the preferred manner of mitigating impacts to archaeological resources. California PRC §5097.9 stipulates that it is contrary to the free expression and exercise of Native American religion to interfere with or cause severe irreparable damage to any Native American cemetery, place of worship, religious or ceremonial site, or sacred shrine. California Coastal Act §30244 states: "Where development would adversely impact archaeological or paleontological resources as identified by the State Historic Preservation Officer, reasonable mitigation measures shall be required."

CSU

The Public Resources Code addresses state-owned resources specifically [§5024] supporting the creation of registries for each state agency, with the support of the State Historic Preservation Officer (SHPO). Impacts to state-owned historic resources require documentation and concurrence findings from the SHPO prior to action.

4.8.3.3 Thresholds of Significance

Determination of impact severity is based on comparison of project impacts to the thresholds established in Appendix G of the CEQA Guidelines. Impacts are considered significant if the project would:

1. Cause a substantial adverse change in the significance of a historical resource as defined in §15064.5;

2. Cause a substantial adverse change in the significance of an archeological resource pursuant to §15064.5;

3. Directly or indirectly destroy a unique paleontological resource or site or unique geologic feature;

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

4.8.3.4 Project-specific Impacts and Mitigation Measures

Historic or Archaeological Resources, Human Remains

There are no known or suspected historic or archaeological resources within the project site, based on documentation and records searches performed for the Master Plan. The fill diminishes the potential for discovery of buried resources during the majority of the excavation effort. Impacts are considered *less than significant (Class III)*.

Paleontological Resources

The fill diminishes the potential for discovery of buried resources during the majority of the excavation effort. However, should the ultimate project design and construction methodologies require installation of caissons or otherwise require disturbance of bedrock formations, impact to paleontological resources may occur. Mitigation is recommended to address potential impacts.

CR Impact 1	
Should the ultimate project design and construction methodologies require installation of caissons or otherwise require disturbance of bedrock formations, impact to paleontological resources may occur.	
Mitigation Measures	
CR/mm-1	*If soil excavation associated with grading activities requires disturbance of bedrock formations, a qualified paleontologist will be retained to monitor construction activities in those areas. Should any vertebrate fossils or potentially significant finds (e.g., numerous well-preserved invertebrate or plant fossils) be encountered during work on the site, all activities in the immediate vicinity of the find shall cease until the qualified paleontologist evaluates the find for its scientific value. If deemed significant, the paleontological resource(s) shall be salvaged and deposited in an accredited and permanent scientific institution where they will be properly curated and preserved.*
Residual Impacts	
It is uncertain whether the ultimate project design and construction methodologies will disturb bedrock formations underlying the project site; evaluation of fossil-bearing potential of such formations is infeasible prior to the start of the project due to the depth at which bedrock occurs on site (6 to 18.5 feet). Monitoring of construction which disturbs bedrock will enable proper identification and recordation of resources encountered. Impacts are considered *less than significant after mitigation is applied (Class II*).	

4.8.3.5 Cumulative Impacts

The project would not impact historic or prehistoric resources, and would have less than significant impacts to paleontological resources after mitigation. The project would not contribute to a cumulative impact to any of these resources. Impacts are considered *less than significant (Class III)*.

4.8.4 Hazards and Hazardous Materials

4.8.4.1 Existing Conditions

The project site lies within a moderate to high fire hazard zone, primarily due to the proximity of natural open spaces. The project location is not within any airport review area and is not located within an area of known hazardous material contamination.

The Hazardous Waste and Substances Sites List (commonly referred to as the “Cortese List”) is a planning document that provides information about the location of hazardous materials release sites developed annually by the California EPA (CalEPA) Department of Toxic Substances Control (DTSC) and stored in the EnviroStor database. There are no properties in San Luis Obispo listed on the Cortese List. The only three properties in San Luis Obispo County listed are: (1) the Baywood Park Training Area, a former military firing range located in Montaña de Oro State Park and surrounding areas; (2) Camp San Luis Obispo, a former military firing range located approximately 7 miles east of Morro Bay along Highway 1; and (3) the Buena

Vista and Klau mercury mines located approximately 12 miles northwest of the city of Paso Robles. Cleanup at all three sites is ongoing. The nearest site is Camp San Luis Obispo, located approximately 5 miles northwest of the project site.

The SWRCB's GeoTracker database provides a list of leaking underground storage tank (LUST) sites and other cleanup sites. A LUST cleanup site is located at the Farm Shop and is noted as eligible for closure. Various other LUST sites exist within the City; most in the vicinity of the campus are listed as closed. Other than the Farm Shop site, the nearest open LUST sites to the project are located on Monterey Street, more than 0.5 miles from the project. A potential DTSC cleanup site is located south of Highway 101 off Grand Avenue.

4.8.4.2 Regulatory Setting

Hazards and hazardous material management is subject to multiple laws, policies, and regulations at all levels of government. The agencies responsible for enforcing applicable laws and regulations develop and enforce standards for the handling and clean-up of specific materials determined to pose a risk to human health or the environment. The enforcing agency at the local level for the proposed project area is the County Public Health Department, Division of Environmental Health. Enforcement agencies at the State level include two branches of CalEPA, DTSC, and RWQCB.

Federal Regulation

The EPA is the Federal agency responsible for enforcement and implementation of Federal laws and regulations pertaining to hazardous materials. In addition, the EPA provides oversight and supervision for some site investigation/remediation projects. For disposal of certain hazardous wastes, the EPA has developed land disposal restrictions and treatment standards.

State Regulation

The project site is located within the jurisdiction of the Central Coast RWQCB. The RWQCB is authorized by the California Porter-Cologne Water Quality Act of 1969 ("the Porter-Cologne Act"), to implement water quality protection laws. When the quality of the groundwater or the surface waters of the State is threatened, the RWQCB has the authority to require investigations and remedial actions. In addition, the Central Coast RWQCB is the State regulatory agency that oversees the local Leaking Underground Fuel Tank (LUFT) program, which was established to regulate underground fuel tanks. Under the LUFT program, local implementing agencies are required to permit, inspect, and oversee monitoring programs to detect leakage of hazardous materials. The RWQCB has been involved with the regulation of the Marine Terminal Remediation activities.

In California, the DTSC, a branch of CalEPA, works in conjunction with, or in lieu of, the EPA to enforce and implement specific hazardous materials laws and regulations. California has enacted its own legislation pertaining to the management of hazardous materials. The Hazardous Waste Control Act created the state hazardous waste management program, which is similar to, but more stringent than, the federal Resource Conservation and Recovery Act program. The act is implemented by regulations contained in CCR Title 26, which describes required aspects for the proper management of hazardous waste. California has also developed an emergency response plan to coordinate emergency services provided by federal, state, and local agencies under the Emergency Services Act. Rapid response to incidents involving hazardous materials or hazardous waste is an important part of the plan, which is administered by the California Office of Emergency Services. The office coordinates the responses of other

agencies, including EPA, the California Highway Patrol, regional water quality control boards, air quality management districts, and county disaster response offices.

Local Regulation

The County Office of Emergency Services (OES) is an emergency management agency with responsibilities that include coordination of emergency and disaster preparedness planning, response, and recovery with and between local, state, and federal agencies. The OES is responsible for reviewing and implementing the Dam and Levee Failure Evacuation Plan, Cities Nuclear Power Plant Emergency Response Plan, and Tsunami Response Plan. The County OES is committed to serving the public before, during and after times of emergency and disaster by promoting effective coordination between agencies, and encouraging emergency preparedness of the public and organizations involved in emergency response. Pursuant to State law and local ordinance, the County's Environmental Health Services Division conducts inspections to ensure proper handling, storage, and disposal of hazardous materials and proper remediation of contaminated sites.

4.8.4.3 Thresholds of Significance

The significance of potential impacts is based on thresholds identified within Appendix G of the CEQA Guidelines and the County Initial Study Checklist, which provide the following thresholds for determining impact significance with respect to hazards and hazardous materials. Impacts would be considered significant if the proposed project would:

1. Result in a risk of explosion or release of hazardous substances (e.g. oil, pesticides, chemicals, radiation) or exposure of people to hazardous substances.

2. Interfere with an emergency response or evacuation plan.

3. Expose people to safety risks associated with airport flight patterns.

4. Increase fire hazard risk or expose people or structures to high fire hazard conditions.

5. Create any other health hazard or potential hazard.

4.8.4.4 Impact Assessment and Methodology

The EIR impact analysis focuses on potential safety and health risks associated with the proposed project, particularly from land uses that could create considerable health and safety risks. Methodology for assessing the proposed project includes a review of existing resources, including the campus Master Plan, City and County Safety Elements, as well as review of the lists of known potential sources of hazardous contamination prepared by the California Environmental Protection Agency, Department of Toxic Substances Control. Significant impacts would result if the project would interfere with an emergency response or evacuation plan, or increase the likelihood that hazardous materials or conditions would be encountered or created during project implementation due to existing conditions such as leaking underground storage tanks, or the characteristics of the proposed project.

4.8.4.5 Project-specific Impacts and Mitigation Measures

Risk of Explosion, Release, or Exposure to Hazardous Substances

Construction and operation of the project will not create a substantial risk to people or the environment associated with the routine use, transport, or disposal of hazardous waste. Materials used on-site will be typical of other campus projects, and will include cleaning and other maintenance products. Proper use and storage of such materials is sufficient to reduce risks associated with exposure. Construction equipment, if damaged, can release fuel, oil, lubricants, and other materials into the environment and expose workers and the campus population. The campus requires contractors to prepare, maintain, and implement management plans for upset and accident condition on-site, including protocols for stop work, spill containment, notification, and remediation. These measures are considered sufficient to reduce risks associated with use of such materials during construction.

The project site is located on campus, within 100 feet of a former elementary school occupied by private schools, approximately 125 feet from existing student housing, and within 75 feet of outdoor athletic fields. Emissions associated with the project are limited to typical construction and operational emissions, as discussed and quantified in Section 4.2, Air Quality. The project would emit emissions during construction and operation; impacts are considered significant and unavoidable under shorter-term thresholds, but are mitigable under quarterly or annual thresholds. The proximity of sensitive receptors poses special conditions which warrant additional mitigation, particularly addressing idling of vehicles. Mitigation is included in Section 4.2, Air Quality, to reduce impacts to sensitive receptors to a less than significant level.

The site has tested negative for naturally occurring asbestos (Earth Systems 2013). No known man-made sources of asbestos (such as abandoned transite pipe) are known to exist on-site; however, given the undocumented nature of fill underlying the site, such materials may be encountered. Mitigation is recommended in Section 4-2, Air Quality, to ensure proper treatment and disposal of such materials if encountered.

The project site is located more than 1,500 feet from US 101. The project site is considered too distant for emissions associated with that roadway to pose a special risk to the residents on-site.

Impacts associated with hazardous materials exposure are considered *less than significant with mitigation (Class II)*.

HAZ Impact 1
Proximity of sensitive receptors poses special conditions which warrant mitigation to address idling of construction equipment and potential for discovery of manmade asbestos containing materials.
Mitigation Measures
Implement AQ/mm-2 and AQ/mm-3.
Residual Impacts
Utilizing special conditions to address vehicle idling and proper response to encountered manmade asbestos containing materials will ensure potential hazards associated with these sources are *less than significant (Class III)*.

Interfere with Emergency Response or Evacuation Plan

The project is located within the developed campus instructional core. The project will not impede circulation at points of egress, or otherwise impede evacuation of the campus, if required. There is no impact.

Airport Flight Patterns

The project site is not located within any airport review area and would not expose people to safety risks associated with airport flight patterns.

High Fire Risk

The project is not located within a high fire hazard zone and does not present a significant fire safety risk.

Other Hazards

The campus is at an elevated fire hazard risk because of proximity to undeveloped land to the north and east. The project is located within the developed campus instructional core within a 5-minute response time from the nearest California Department of Forestry and Fire Protection (CAL FIRE) station, and within 2-minute response times from the nearest City Fire station. The project site is served by existing fire suppression infrastructure (i.e., hydrant systems). The project is required to comply with existing Fire and Building Code regulations intended to reduce risk of damage to property and persons. Applicable regulations address roofing and roof access, fire flow (water) infrastructure, design of hydrant systems, fire protection systems (sprinklers and alarms), fire extinguishers, and structure egress. The project must also comply with access requirements (primary and secondary), provide adequate fire lanes, and maintain defensible space. The project's location in a developed area with existing fire suppression infrastructure reduces risks associated with wildland fire to a *less than significant* level *(Class III)*.

4.8.4.6 Cumulative Impacts

Due to the type of project proposed, and lack of hazards or hazardous materials within or near the project site, construction and operation of the project would not contribute substantially to environmental impacts related to hazards. Cumulative impacts would be *less than significant (Class III)*. No additional mitigation is required.

4.8.5 Hydrology and Water Quality

4.8.5.1 Existing Conditions

The project will utilize existing campus water systems for supply. The University owns a share of Whale Rock Reservoir, in addition to surface and groundwater rights. More information about water supplies is provided in Section 4.7, Utilities.

Existing drainage patterns on-site are sheet flow across the paved surface parking lot to existing drainage infrastructure in Grand Avenue and Slack Street. The topography of the sight is gently sloping to steeply sloping at the site boundaries. There are no creeks near the site; a natural drainage is located east of the site across Grand Avenue. The drainage terminates into subterranean stormwater infrastructure on the east site of Grand Avenue. Erodibility of the soils underlying the site is unknown; soils are undocumented fill.

4.8.5.2 Regulatory Setting

Federal Policies and Regulations

The Clean Water Act controls the discharge of toxic material into surface water bodies. Under this act, states are required to identify water segments impaired by pollutants and develop control strategy/management plans to reduce pollution and meet certain water quality standards.

Regulatory protection for water resources throughout the United States is under the jurisdiction of the USACE. Section 404 of the Clean Water Act prohibits the discharge of dredged or fill material into "waters of the U.S." without formal consent from the USACE. Waters of the U.S. include marine waters, tidal areas, stream channels, and associated wetlands. Wetlands include freshwater marshes, vernal pools, freshwater seeps, and riparian areas. Under Section 404, activities in waters of the U.S. may be subject to either an individual permit or a general permit, or may be exempt from regulatory requirements. Some activities have been given blanket authorization under the provisions of a general permit through the Nationwide Permit system. Individual Permits require the applicant to prepare and submit an alternatives analysis of the project.

Section 401 of the Clean Water Act and its provisions ensure that federally permitted activities comply with the federal Clean Water Act and state water quality laws. Section 401 is implemented through a review process conducted by the RWQCB, and is usually triggered by the Section 404 permitting process. Specifically, the RWQCB certifies via Section 401 that the proposed project complies with applicable effluent limitations, water quality standards, and other conditions of California law. If the RWQCB denies certification, the lead federal agency must deny the federal permit application.

State Policies and Regulations

The establishment and enforcement of water quality standards for the discharge into and maintenance of water throughout California is managed by the SWRCB and its RWQCBs. The SWRCB enforces the federal Clean Water Act on behalf of the EPA. Most of the quantitative objectives are based on the CCR, Title 22 – State Drinking Water Standards. Other considerations include the Porter-Cologne Water Quality Control Act, and the RWQCB's Non-degradation Policy. The campus is located within Region 3, the Central Coast RWQCB. The RWQCB is the primary State agency ensuring that the quality of potable water supplies is protected from harmful effects by man.

The SWRCB has adopted a NPDES Storm Water General Permit, which requires the implementation of a SWPPP for discharges regulated under the SWRCB program. Currently, construction sites of 1 acre and greater may need to prepare and implement a SWPPP that focuses on controlling storm water runoff. The RWQCB, the local extension of the SWRCB, currently monitors these SWPPPs.

4.8.5.3 Thresholds of Significance

The significance of potential impacts is based on thresholds identified within Appendix G of the CEQA Guidelines, which provide the following thresholds for determining impact significance with respect to hydrology and water quality. Impacts would be considered significant if the proposed project would:

1. Violate any water quality standards or waste discharge requirements.

2. 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)

3. 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 substantial erosion or siltation on- or off-site

4. 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

5. Create or contribute runoff water which would exceed the capacity of existing or planned stormwater drainage systems or provide substantial additional sources of polluted runoff

6. Otherwise substantially degrade water quality

7. 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

8. Place within a 100-year flood hazard area structures which would impede or redirect flood flows

9. 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

10. Inundation by seiche, tsunami, or mudflow

4.8.5.4 Impact Assessment and Methodology

Site conditions, the geotechnical report, and preliminary plans were assessed for changes in drainage and potential impacts to quality. The Master Plan EIR was referenced to provide information regarding hazards such as flooding.

4.8.5.5 Project-specific Impacts and Mitigation Measures

Violation of Water Quality Standards

The site is currently developed with a paved surface parking lot, which discharges to a developed storm water system. The project would remove most of the parking, replacing the existing land use with residential structures, a parking structure, landscaping, and pedestrian and vehicle access pathways.

The project will involve disturbance over the entire 12-acre site. The site is bordered by existing developed campus and urban infrastructure, including paved sidewalks and streets, and developed storm drainage infrastructure. During construction, particularly during initial site clearance and excavation, the project would pose short-term risks associated with erosion, sediment transport, and off-site flooding. Construction equipment on-site would pose risk of release of fuels, lubricants, and other contaminants. Natural waterways are not at risk; impacts would occur in the storm drain system and on neighboring property.

The use proposed for the site is not considered a substantive risk to water quality. The project includes development of residential uses, with replacement of approximately 500 spaces of parking. Risks to water quality associated with ongoing operation of the site are limited to leaking hydrocarbons from vehicles. The project will not increase impervious surfaces over existing conditions, and would result in fewer cars parked on site.

The project is greater than 1 acre in size, and the University or its designee is, therefore, required to prepare a SWPPP which will cover site preparation, active construction, and post-construction conditions. The SWPPP must be approved by the RWQCB prior to activity on the site. The University or its designee will be required to prevent off-site flooding and stormwater flow during construction, and must specify measures or project components which will provide water quality protection long term. The preparation and implementation of a SWPPP will be sufficient to reduce risks of water quality standard violation. Impacts are considered *less than significant (Class III)*.

Groundwater

The project will not be served by groundwater. Domestic supplies on campus are provided by existing entitlements to Whale Rock Reservoir via the City's treatment plant at Stenner Creek. The existing pavement on-site prevents infiltration of precipitation. The project will increase the infiltration capacity of the site compared to existing conditions. Impacts are considered *less than significant (Class III)*.

Alter Drainage Patterns

The existing drainage pattern of the site is sheet flow to surrounding streets and storm drains. The site contains no natural drainage features. The project will include the design and installation of new stormwater collection and conveyance systems pursuant to building code standards. The project will also be subject to measures outlined in the SWPPP. Compliance with existing codes and regulations will be sufficient to ensure the project does not result in sediment traveling off-site, or flooding off-site. Impacts are considered *less than significant (Class III)*.

Exceed Stormwater Capacity

The project will not increase stormwater reaching existing drainage systems; the site is currently paved and runoff is directed to developed stormwater systems. The project will include the design and installation of new stormwater collection and conveyance systems pursuant to building code and Low Impact Development standards. The project will also be subject to measures outlined in the SWPPP. Compliance with existing codes and regulations will be sufficient to ensure stormwater systems are designed to accommodate the flow anticipated. Impacts are considered *less than significant (Class III)*.

Flooding and Other Hazards

The project will not otherwise substantially degrade water quality. The project is residential in nature and contains no special uses which would pose a risk to water quality. There is no impact.

The project site is not located in a 100-year flood hazard area. The project is not located in an area at risk from inundation by dam or levee failure, and is not in an area at risk of mudflow, tsunami, or seiche. There is no impact.

4.8.5.6 Cumulative Impacts

Stormwater and water quality impacts are site-specific, and mitigated by on-site permitting and design. The project will not contribute to cumulatively significant impacts to hydrology and water quality. Impacts are considered *less than significant (Class III)*.

4.8.6 Mineral Resources

There are no known mineral resources located on the project site. There is no impact.

4.8.7 Population and Housing

4.8.7.1 Existing Conditions

The University has completed several housing projects since the adoption of the 2001 Master Plan. Cal Poly currently offers 6,239 beds in student housing, a significant increase from the 2,838 beds available at the time of Master Plan adoption. The percent of students housed on campus has increased from approximately 16% in 2001 to over 35% in 2012; however, the current demand continues to exceed the available supply. The existing bed count includes over 600 beds in triple occupancy to meet some portion of the excess demand, and the campus continues to maintain a waiting list. The University is also housing freshman in Poly Canyon Village, which was specifically designed for upperclassmen. Therefore, Cal Poly continues to explore additional residential development options on campus.

Enrollment at the University is difficult to predict; factors such as the economic downturn have played an important role in the annual enrollment scenario. The Master Plan projected enrollment at 20,912 by 2020; actual enrollment has varied, with a high of 19,777 in 2007 and a low of 18,262 in 2011. An estimated 18,975 students are enrolled for the 2013-2014 academic year.

The University is a major employer in the San Luis Obispo region, with approximately 2,615 employees as of Fall 2012. Employees include 1,225 staff, 169 management positions, and 1,221 faculty members.

4.8.7.2 Regulatory Setting

The Master Plan provides guidance for the provision of different types of housing on campus, including faculty and staff housing, married student housing, and more traditional student housing.

The City and County General Plans put forth growth volumes and patterns and provide policies and programs to support projected growth and mitigate its effects.

4.8.7.3 Thresholds of Significance

The significance of potential impacts is based on thresholds identified within Appendix G of the CEQA Guidelines which provides the following thresholds for determining impact significance with respect to population and housing. Impacts would be considered significant if the proposed project would:

1. Induce substantial growth in an area either directly or indirectly (e.g., through projects in an undeveloped area or extension of major infrastructure).

2. Displace existing housing or people, requiring construction of replacement housing elsewhere.

4.8.7.4 Impact Assessment and Methodology

Previous campus planning and environmental documents were reviewed. Significant impacts would result if the project would induce substantial growth in the area, displace existing housing or create the need for substantial new housing in the area.

4.8.7.5 Project-specific Impacts and Mitigation Measures

Growth Inducement

The project consists of the development of approximately 1,475 beds of student housing to serve the existing freshman population. Indirect effects associated with backfill of vacated housing in the City are considered too speculative for analysis. The project will serve an existing student population, and will not result in extension of infrastructure to new locations. The project does not increase enrollment. Approximately 30 new staff positions will be created by the project. This is not considered substantial growth within the region. The project will not, therefore, induce substantial population growth. Impacts are considered *less than significant (Class III)*.

Displace Housing or People

The project site is occupied by a surface parking lot. The construction of the project will not displace housing or populations. There is no impact.

4.8.7.6 Cumulative Impacts

The project consists of the development of approximately 1,475 beds of student housing to serve the existing freshman population and approximately 30 new employment opportunities and would not create significant impacts on existing housing or population levels. Therefore, no cumulatively significant impact would occur.

4.8.8 Public Services and Utilities

4.8.8.1 Existing Conditions

Schools

The project is located in the San Luis Coastal Unified School District. The project would create approximately 30 new employment opportunities at the campus. Employment growth may contribute to increased enrollment at area schools if employees move districts or move to the region to take advantage of opportunities. However, the area of impact becomes difficult to predict, as employees at the University live throughout the county. Several schools serve the San Luis Obispo city area alone. Based on review of the most recent enrollment information at the San Luis Coastal Unified School District website (www.slcusd.org; accessed November 19, 2013), there is sufficient capacity within the system to accommodate minor potential increases in enrollment associated with increased staffing at the University.

Libraries and Other Governmental Facilities

The project is served by on-campus library and governmental services. The project would create approximately 30 new employment opportunities on campus. The project would not

increase existing enrollment. Existing library and governmental functions on campus are sufficient to serve projected employment increases.

Solid Waste

As documented in the University's 2012 Sustainability Progress Report, Cal Poly has a 50% diversion goal for solid waste. The University has met or exceeded that goal since 2003, with almost 80% diversion achieved in 2010. According to the Sustainability Report:

> *Paper, cardboard, aluminum, glass, and plastics are collected and sent to recycling facilities. Campus Dining sends food waste to a composting operation. The University also encourages recycling through its procurement policies: to the extent possible, all products must be recyclable or made from recycled materials.*

The University also requires contractors to divert as much waste as possible during construction projects. Recent development projects on campus have achieved construction diversion rates as high at 97%.

Solid waste which is not diverted by the University is transported to the Cold Canyon Landfill. The landfill is located approximately 7 miles from San Luis Obispo. The landfill serves private entities and municipalities throughout San Luis Obispo County. The landfill has recently expanded and now operates near 50% of permitted capacity (250,000 tons per year [TPY] of a 500,000 TPY capacity).

4.8.8.2 Regulatory Setting

Solid waste disposal in California is regulated at the state level by CCR Title 14, Division 7, Chapter 3 (Minimum Standards for Solid Waste Handling and Disposal) and in PRC §40100 et. seq. The California Integrated Waste Management Act (PRC §40000 et seq.) requires municipalities to divert 25% of their solid waste from landfills to recycling facilities by 1995 and 50% of their solid waste by 2000.

4.8.8.3 Thresholds of Significance

The significance of potential impacts is based on thresholds identified within Appendix G of the CEQA Guidelines, which provide the following thresholds for determining impact significance with respect to public services and utilities. Impacts would be considered significant if the proposed project would:

1. Have an effect upon, or result in the need for new or altered public services in any of the following areas:

    - Fire protection
    - Police protection
    - Schools
    - Solid waste
    - Parks
    - Water
    - Wastewater
    - Other public facilities.

Fire, police, and recreation are addressed in Section 4.5, Public Services and Recreation. Water and wastewater are addressed in Section 4.7, Utilities.

4.8.8.4 Impact Assessment and Methodology

The analysis of public services and utilities and the subsequent estimation of impacts at the project site were conducted through a review of existing resources. Significant impacts would result if the project would have a significant effect on, or result in the need for new or altered school, solid waste, or governmental facilities.

4.8.8.5 Project-specific Impacts and Mitigation Measures

Effect or Result in the Need for New/Altered Public Services

The project is located in the San Luis Coastal Unified School District. The project would create approximately 30 new employment opportunities at the campus. Employment growth may contribute to increased enrollment at area schools if employees move districts or move to the region to take advantage of opportunities. However, the area of impact becomes difficult to predict, as employees at the University live throughout the county. Several schools serve the San Luis Obispo city area alone. Based on review of the most recent enrollment information at the San Luis Coastal Unified School District website (www.slcusd.org; accessed November 19, 2013), there is sufficient capacity within the system to accommodate minor potential increases in enrollment associated with increased staffing at the University.

The project is served by on-campus library and governmental services. The project would create approximately 30 new employment opportunities on campus. The project would not increase existing enrollment. Existing library and governmental functions on campus are sufficient to serve projected employment increases.

Development of 1,475 beds on campus would increase the total population of residents on campus. The project would not increase enrollment; therefore, the project would capture a portion of the existing student population and a portion of an existing solid waste stream. Increases in solid waste associated with new employees are likewise considered minor. The University's high diversion rate further reduces the project's overall impact.

Solid waste would be generated during site preparation, construction, and project occupancy. Waste generated during site preparation will include greenwaste, soil, and pavement. Approximately 98,000 cubic yards of material, would require reuse on-site or disposal. As stated previously, the University intends to reuse as much material as possible, including recompaction and use within the site confines. However, soil excavated on-site may be used on-site, elsewhere on campus, in landfill operations, or be disposed of at an alternate location. The ultimate site plan and soil condition findings will dictate the amount of export and refine the suitable disposal sites. Sufficient capacity exists at Cold Canyon Landfill should landfill disposal be required. Impacts associated with both construction and operation are considered less than significant. No significant adverse impacts would occur as a result of the proposed project, and no mitigation measures are necessary.

4.8.8.6 Cumulative Impacts

The project constitutes growth in accordance with the 2001 Master Plan, and does not result in new enrollment. Sufficient solid waste capacity exists for the project. No significant contributions to cumulative impacts have been identified.

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CHAPTER 5
ALTERNATIVES ANALYSIS

5.1 INTRODUCTION

CEQA Guidelines §15126.6(a) requires an EIR to "describe a reasonable range of alternatives to a project, or to the location of a project, which could feasibly attain most of the basic objectives of the project but would avoid or substantially lessen any of the significant effects of the project." The CEQA Guidelines provide direction for the discussion of alternatives to the proposed project. This section also requires:

- A setting forth of alternatives that "...shall be limited to ones that would avoid or substantially lessen any of the significant effects of the project. Of those alternatives, the EIR need examine in detail only the ones that the lead agency determines could feasibly attain most of the basic objectives of the project." [§15126.6(f)]

- Discussion of the "No Project" alternative, and "...If the environmentally superior alternative is the "no project" alternative, the EIR shall also identify an environmentally superior alternative among the other alternatives." [§15126.6(e)(2)]

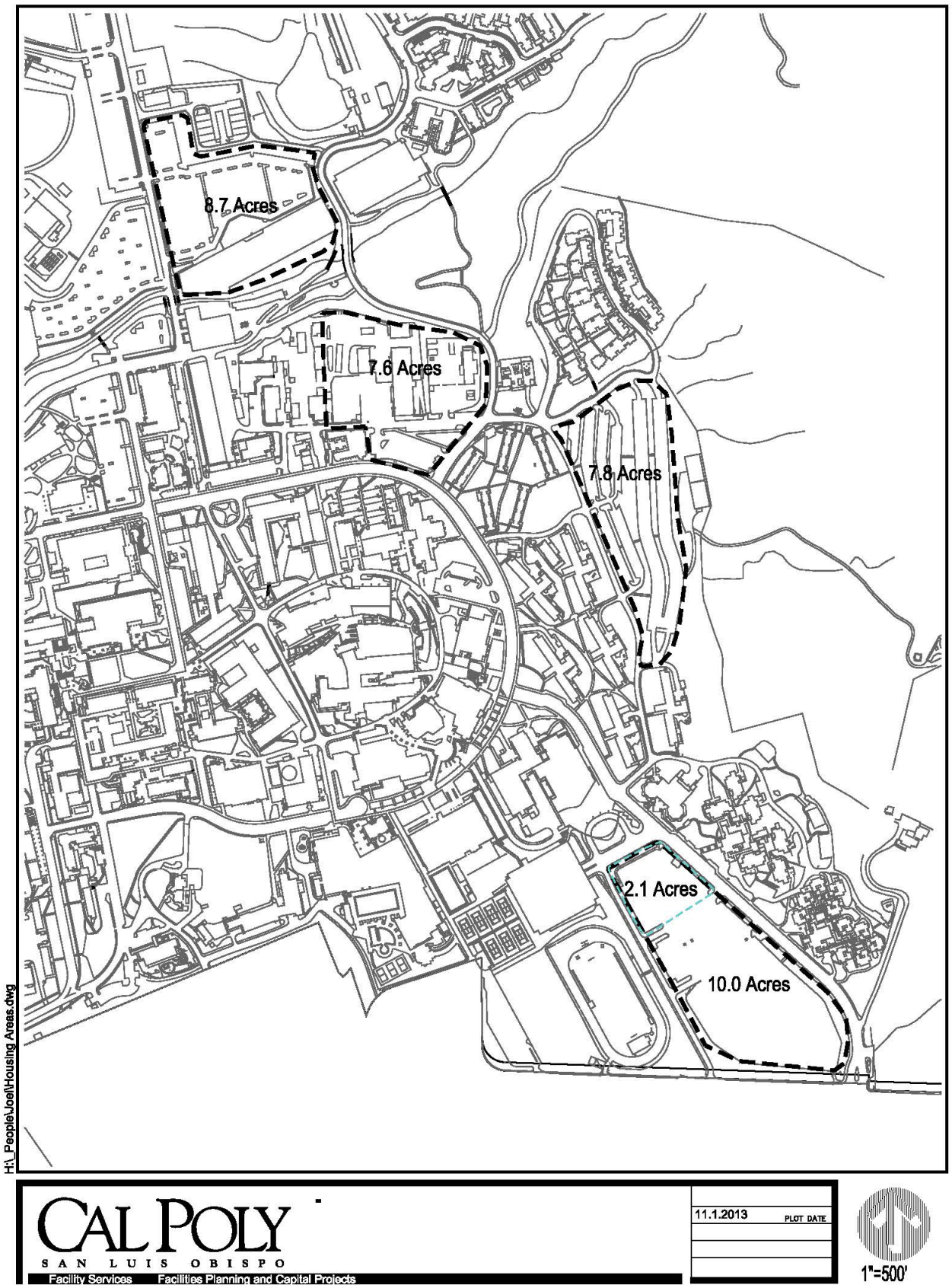
- Discussion and analysis of alternative locations "…that would avoid or substantially lessen any of the significant effects of the project;" only these need to be considered for inclusion in the EIR. [§15126.6(f)(2)(A)]

Given the CEQA mandates listed above, this section: (1) describes the range of reasonable alternatives to the project; (2) examines and evaluates resource issue areas where significant adverse environmental effects have been identified and compares the impacts of the alternatives to those of the proposed project; and (3) identifies the Environmentally Superior Alternative.

5.2 BACKGROUND – SITE SELECTION AND ALTERNATIVES REJECTED

The University has considered several alternatives to the proposed site, including those depicted in Figure 5-1. The northern site (8.7 acres) was rejected because of lack of proximity to existing communal dining facilities and student activity centers at the University Union and Recreation Center. The northernmost site is also distant from existing freshman housing, impacting program coordination. The 7.6-acre site was not considered further because it would require the relocation of several existing functions and facilities, including Facilities and Maintenance. The Master Plan identified this site for redevelopment with instructional space. This site, and other areas between South Perimeter and Highland Drive, was identified for this purpose in part because of Master Plan goals to maintain 10-minute passing periods among instructional spaces. Redesignation of this area for housing would result in loss of important instructional capacity. In addition, costs to relocate existing functions for a non-state funded development such as housing were considered prohibitive. The 7.8-acre site was not considered further; the slope and drainage on site would require substantive additional work, and structures would exceed seven stories in height, significantly increasing cost and visual impact.

Figure 5-1. Site Selection



5.3 PROJECT ALTERNATIVES

In defining feasibility of alternatives, the CEQA Guidelines state:

> *"Among the factors that may be taken into account when addressing the feasibility of alternatives are site suitability, economic viability, availability of infrastructure, general plan consistency, other plans or regulatory limitations, jurisdictional boundaries (projects with a regionally significant impact should consider the regional context), and whether the proponent can reasonably acquire, control or otherwise have access to the alternative site."*

Through the scoping process, if an alternative was found to be infeasible, as defined above, then it was dropped from further consideration. In addition, CEQA states that alternatives should "…attain most of the basic objectives of the project..."

5.3.1 Significant Impacts Resulting from the Proposed Project

Generally, the alternatives analysis considers alternatives that would avoid or reduce, to the maximum extent feasible, the identified unavoidable impacts. Significant and unavoidable impacts associated with the project include:

1. **Air Quality:** construction, operational and GHG emissions; and,

2. **Traffic and Circulation:** indirect impacts to off-campus intersections.

Members of the community expressed concern in comment letters during the scoping process over proximity of the proposed development to existing residential neighborhoods, including nuisances related to light, noise, and foot traffic. Community members identified additional alternatives to address these concerns, which have been included in this analysis.

5.4 ALTERNATIVES ANALYSIS

Potential alternatives to the proposed project are limited to existing University property, specifically, the campus instructional core and extended core. Alternatives are limited to these areas based on the overarching objective of the project to provide on campus housing for freshmen.

Criteria used to develop a reasonable range of alternatives included the potential to avoid significant impacts to the natural and human environment, whether or not the considered alternative could generally meet the project objectives and costs. Specific consideration was given to potential alternatives that appeared to avoid or minimize identified significant impacts.

Table ES-4 shows each potential impact and all mitigation measures recommended to avoid or reduce identified impacts. Generally, the alternatives analysis considers alternatives that would avoid or reduce, to the maximum extent feasible, the identified unavoidable impacts. As noted above, the project would have significant and unavoidable impacts in the areas of air quality and traffic and circulation. Therefore, the considered alternatives focused on avoiding or reducing these significant impacts. Alternatives identified by community members during the scoping process are also included for consideration.

Identified alternatives include the No Project (No Development) Alternative, No Project – Pursue Existing Residential Communities Element (Existing Master Plan), Location Alternative –

Relocate Project to H-12 and H-16 Parking Lots, and Site Layout Alternative A – Slack Street Parking Structure. A Reduced Project Alternative is also discussed.

5.5 ALTERNATIVES IMPACTS ANALYSIS

5.5.1 No Project Alternative

The No Project Alternative would include none of the components of the proposed project. The site would remain a surface parking lot, and the residential community would not be built. This alternative does not meet any of the basic objectives of the project, and is inconsistent with the 2001 Master Plan. The Master Plan identified the need for substantive additional housing on campus to meet existing and projected demand; failure to develop additional housing would negate many of the principles stated in the Master Plan.

This alternative would reduce or eliminate most of the adverse impacts associated with the project as identified throughout this EIR. However, the no project alternative would also eliminate benefits of the project, including reduced traffic associated with housing additional students on campus and closure of the surface parking lot.

5.5.2 No Project – Existing Master Plan

This alternative would consist of development of the Residential Communities Element as adopted in the 2001 Master Plan (refer to Figure 2-4), as well as at least one parking structure. As noted previously, since the adoption of the Master Plan, most of the identified housing sites have been deemed infeasible for the development programmed in the Master Plan. More detail regarding the selection of the proposed housing site is included in EIR Chapter 2, Project Description. The relative impacts associated with implementation of this alternative are discussed below.

5.5.2.1 Aesthetics

A more dispersed housing plan would have varying impacts depending on location and size. In general, implementation of the existing Master Plan would retain the site as parking, and shift residential development to internal portions of campus. Impacts to aesthetics, as outlined in the Master Plan EIR, were considered less than significant with mitigation, similar to the proposed project. The implementation of the Master Plan would result in additional development which would incrementally affect views throughout campus and from public roads.

5.5.2.2 Agriculture

The remaining Master Plan residential communities would not impact agricultural resources. Impacts are less than significant, similar to the proposed project.

5.5.2.3 Air Quality

Implementation of the remaining Master Plan for residential communities would result in a program occurring as several separate projects in dispersed locations. Considered together, impacts, as noted in the Master Plan, would likely be significant and unavoidable. The implementation of the Master Plan for residential communities would still involve construction and operational emissions near student residences, which are considered sensitive receptors. Commute trip reduction would still occur, and supplemental parking would be built. Impacts are considered significant and unavoidable, similar to the proposed project.

5.5.2.4 Biological Resources

Development of the remaining sites in the Master Plan would result in impacts to sensitive species known or suspected to inhabit or occur in the fringes of campus. Impacts would likely be mitigable. Impacts are considered slightly more adverse than the proposed project due to relative lack of habitat associated with the proposed site.

5.5.2.5 Geology and Soils

Remaining sites for development under the Master Plan include sites within the developed campus core, where impacts associated with geology and soils are expected to be less than significant, and similar to the proposed project, and sites at the campus fringe on hillsides, where geotechnical constraints are anticipated. Constraints include drainage and slope limitations, which will require special construction methodologies. Mitigation is similar to the proposed project, consisting of compliance with recommendations of a geotechnical engineer. Impacts are less than significant, similar to the proposed project.

5.5.2.6 Hazards and Hazardous Materials

Implementation of this alternative would not result in alterations to conclusions regarding hazards and hazardous materials as presented in this EIR. Compliance with applicable codes would ensure mitigation of fire hazards.

5.5.2.7 Hydrology and Water Quality

Remaining sites for development under the Master Plan include sites within the developed campus core, where impacts associated with hydrology and water quality are expected to be less than significant, and similar to the proposed project, and sites at the campus fringe on hillsides, where drainage issues have been identified. Compliance with engineering recommendations and existing codes would be sufficient to address impacts, although it should be noted that in the hillside locations, drainage poses constraints which may make attainment of bed count objectives infeasible. Impacts are considered less than significant, and slightly more adverse than the proposed project.

5.5.2.8 Land Use and Planning

Continued implementation of the adopted Master Plan will not cause impacts related to land use and planning.

5.5.2.9 Noise

Implementation of this alternative would not result in alterations to conclusions regarding noise presented in this EIR. The ambient noise environment in each of the remaining locations is likely suitable for development, and the resulting development will not be a substantial noise source. Impacts are considered less than significant, similar to the proposed project.

5.5.2.10 Public Services and Recreation

Implementation of this alternative would not result in alterations to conclusions regarding public services and recreation presented in this EIR.

5.5.2.11 Traffic and Circulation

Impacts related to traffic associated with this alternative are difficult to predict. The Master Plan EIR identified significant and unavoidable impacts related to off-campus intersections. Although

the campus circulation system has changed substantially since adoption of the Master Plan, continued development of residential communities throughout campus would ultimately have significant and unavoidable impacts on area intersections, particularly when City and Caltrans thresholds are applied (one trip added to deficient intersections). Impacts are similar to the proposed project.

5.5.2.12 Utilities

Implementation of this alternative would not result in alterations to conclusions regarding utilities presented in this EIR.

5.5.3 Location Alternative – H-12 and H-16 Parking Lots

This alternative, suggested by a community member, would consist of relocation of the proposed development to the current site of the H-12 and H-16 parking lots, north of Highland Drive and Brizzolara Creek (refer to Figure 5-2). The existing surface parking lots in this location would be removed, and the 1,475 beds and 300- to 500-space parking structure would be constructed. These parking lots were designated for Parking in the 2001 Master Plan.

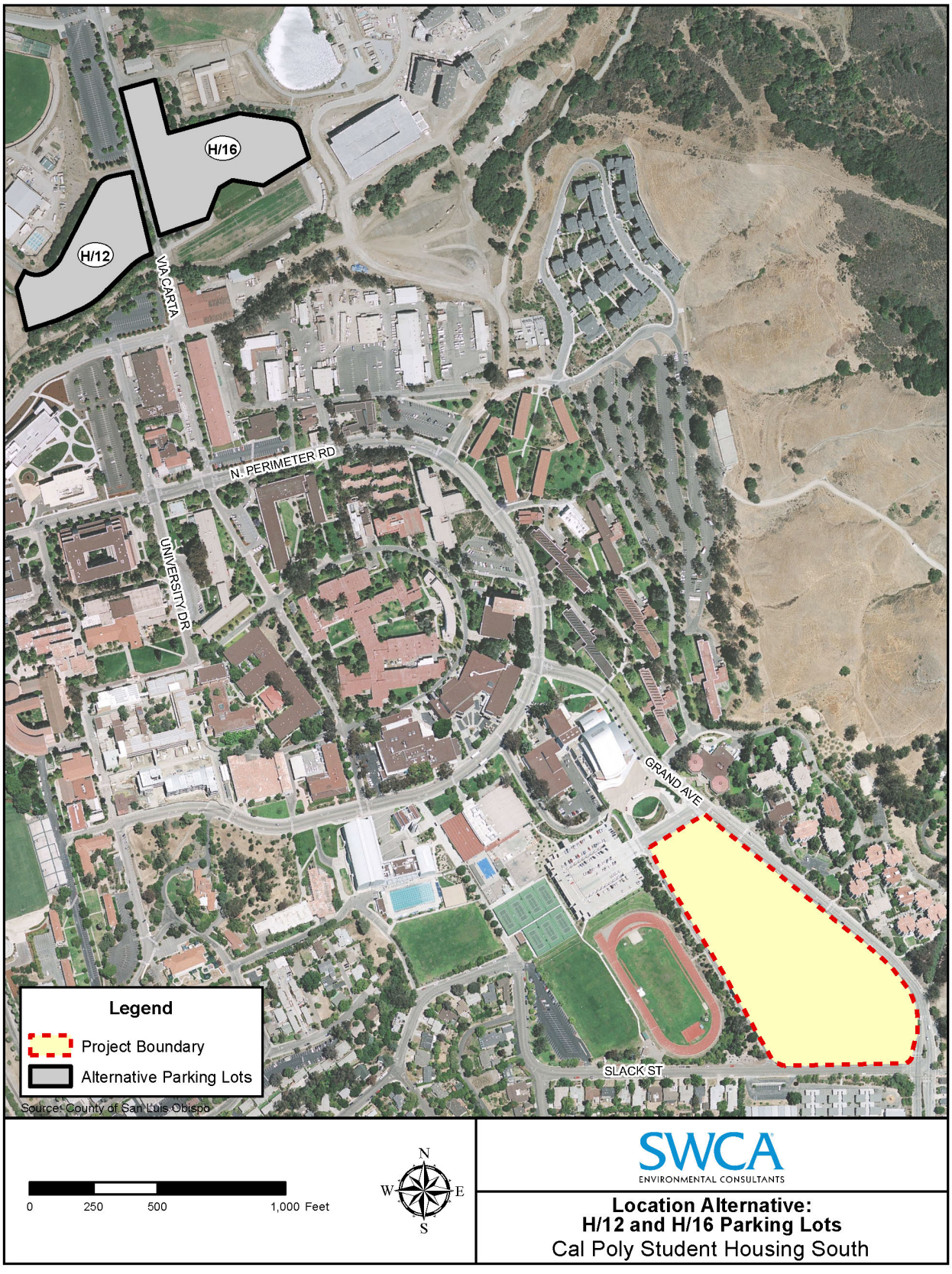
As stated in Section 5.2, this site was included in the site selection process and was rejected. The current project location was selected in part because of proximity of the site to other, existing freshman housing and existing communal dining facilities. Locating the housing to the H-12 and H-16 parking lots would require the development of additional dining facilities. This location would also place freshman housing near an area of upper-division housing at Poly Canyon Village. The Housing Department at Cal Poly prefers to maintain separation between upper-division and freshman housing when feasible. The programs contain different elements – Poly Canyon Village is intended to provide more independent living, with kitchens, no dining facilities, and an older student population. The freshman housing program is designed to more intensively manage the transition to independent living, including through supportive dining, additional resident staffing, and closer proximity to campus facilities such as the University Union.

The following paragraphs outline the impacts of this alternative. The Student Housing North (Poly Canyon Village) EIR (2003) was referenced in determining impacts and impact severity, where applicable.

5.5.3.1 Aesthetics

Development of the H-12 and H-16 parking lots would alter the visual environment in the subject location. The surface parking lots would be developed with housing and parking structures. Views in this area from publicly-accessible locations are limited; roadways proximate to the site, including Highland Drive and Via Carta, provide limited views through existing riparian vegetation and campus development. Existing character and quality is defined by existing campus development, including the parking lots, the Sports Complex, and Agricultural Facilities. The Morros are not generally visible from this location. The introduction of residential and parking structures in this location would alter views, but would not adversely affect vistas. The area is currently lit; introduction of lighting or potential sources of glare in this location would not substantially alter levels of lighting or glare, with inclusion of standard Master Plan mitigation measures. Impacts are generally considered less than significant.

Figure 5-2. Location Alternative – H-12 and H-16 Parking Lots



5.5.3.2 Agriculture

The site is not used for agricultural production—underlying soils, however, are Los Osos loam and Salinas silty clay loam and are considered farmland of statewide importance or prime farmland. The development of the site with housing, however, would not alter use of the site for farming or forestry, nor would it alter the productive capacity of the site, because it is currently paved. Impacts are less than significant, and similar to the proposed project.

5.5.3.3 Air Quality

The alternative would not alter conclusions regarding impacts to air quality compared to the proposed project. The alternative would involve closure of parking lots, similar to the proposed project, and would include similar components. The location is proximate to other, existing student residences and would therefore pose risks to sensitive receptors related to emissions during construction. Impacts would be significant or significant and unavoidable, similar to the proposed project.

5.5.3.4 Biological Resources

The alternative would involve removal of mature trees, and would therefore pose potential risks to nesting birds. Impacts would be mitigated in a manner similar to the proposed project, with avoidance and pre-construction surveys. This alternative would introduce additional housing in the Brizzolara Creek corridor, requiring additional mitigation to prevent adverse impacts to that riparian ecosystem, including indirect impacts related to stormwater runoff. Impacts are therefore considered slightly more adverse than the proposed project.

5.5.3.5 Geology and Soils

The site is generally level to slightly sloping. Soils are Los Osos loam and Salinas silty clay loam. These soils are moderately to highly expansive, and would require preparation of the site for foundations and concrete. There are no other known hazards associated with the underlying geology on site. The site is proximate to Brizzolara Creek and the project would require additional measures to ensure less than significant impacts to that water body, such as down-gradient sedimentation.

5.5.3.6 Hazards and Hazardous Materials

The site is a surface parking lot. There are no known hazardous materials located on the site. The site is in an area of moderate fire risk, and is served by existing firefighting infrastructure. Impacts are considered less than significant with mitigation.

5.5.3.7 Hydrology and Water Quality

The alternative is proximate to Brizzolara Creek and is downslope from Drumm Reservoir, which may pose flood risks. Mitigation would be required to ensure risks of erosion, flooding, and related impacts to water quality would be less than significant. Impacts are considered slightly more adverse than the proposed project due to location.

5.5.3.8 Land Use and Planning

The alternative site is designated Parking in the 2001 Master Plan. The development of the site with housing and parking would require amendment of the Master Plan. The development of the site would not create new impacts related to division of communities, or inducement of growth. Impacts are less than significant, and are similar to the proposed project.

5.5.3.9 Noise

Development of the site with housing and parking would not create substantive noise impacts affecting the human environment. The site is already used for parking, and the housing would not be a significant generator of noise in the long term. Short-term impacts related to construction noise would be addressed through application of Cal Poly standards intended to reduce construction noise. The development of this site would have reduced exposure to off-campus residential areas, compared to the project. Overall, impacts are less than significant, and are similar to the proposed project.

5.5.3.10 Public Services and Recreation

Development of the site with housing and parking would not create significant impacts to public services or recreation. The project site is within an area already served by fire infrastructure and recreational facilities. Similar to the proposed project, on-campus recreational facilities are adequate and would continue to serve the student population.

5.5.3.11 Traffic and Circulation

Development of the site with housing would result in closure of the existing surface parking lot, resulting in a loss of 942 general parking spaces. The H-12 and H-16 lots are typically at 96% and 72% occupancy, respectively. A portion of the lost parking would be addressed through construction of the parking structure. The closure of parking in this area would lead to backfill of local surface parking lots, including H-1, and would generally reduce traffic along the Highland Drive corridor. Trips would be expected to be diverted to other campus entrances, including California Boulevard and Grand Avenue. The number of trips diverted is expected to be greater, due to the higher occupancy of these facilities, and their designation as general (commuter) parking. This alternative would not affect residential parking supplies. Similar to the proposed project, the number of diverted trips is expected to be minor, although impacts would be considered significant and unavoidable under existing thresholds, similar to the proposed project. The alternative is expected to provide facilities to support alternative transportation, including bike racks and lockers, and pedestrian pathways.

5.5.3.12 Utilities

There is sufficient capacity in existing utilities to serve this alternative. This alternative would result in slightly higher demand for water and slightly higher wastewater generation associated with a new dining facility. Impacts are expected to be generally less than significant, and similar to the proposed project.

5.5.4 Site Layout Alternative A – Slack Street Parking Structure

Members of the public suggested analysis of an alternative which would locate the parking structure at the southern end of the site, nearest Slack Street. The intent would be to provide a buffer between the neighborhoods and the student residences. This alternative would alter the existing site plan to locate the parking structure at Slack Street and shift residential buildings to the north. Implementation of this alternative would not reduce potentially significant impacts identified in this EIR.

5.5.4.1 Aesthetics

The setting is the same as for the proposed project; the implementation of this alternative would result in a parking structure, rather than residential buildings, dominating the view at Slack Street, and at the Grand Avenue entrance to campus. Views along Grand Avenue would be

dominated by built structures, and views of the Morros in certain locations would be somewhat obscured. Lighting associated with the parking structure would require mitigation to ensure spillover and night sky lighting are addressed. Impacts are considered less than significant with mitigation, similar to the proposed project.

5.5.4.2 Agriculture

The alternative would not alter conclusions regarding agricultural impacts as presented in this EIR. Impacts would be less than significant.

5.5.4.3 Air Quality

The alternative would not alter conclusions regarding air quality impacts as presented in this EIR. Impacts would be significant and unavoidable.

5.5.4.4 Biological Resources

The alternative would not alter conclusions regarding biological resources as presented in this EIR. Impacts would be less than significant after mitigation.

5.5.4.5 Geology and Soils

The alternative would not alter conclusions regarding geology and soils as presented in this EIR. Impacts would be less than significant.

5.5.4.6 Hazards and Hazardous Materials

The alternative would not alter conclusions regarding hazards and hazardous materials as presented in this EIR. Impacts would be less than significant.

5.5.4.7 Hydrology and Water Quality

The alternative would not alter conclusions regarding hydrology and water quality as presented in this EIR. Impacts would be less than significant.

5.5.4.8 Land Use and Planning

The alternative would not alter conclusions regarding land use and planning as presented in this EIR. Impacts would be less than significant.

5.5.4.9 Noise

This alternative would locate the main noise source associated with the project nearer sensitive receptors, including the school, and neighboring residents. Impacts would be less than significant, but slightly more adverse than the proposed project.

5.5.4.10 Public Services and Recreation

The alternative would not alter conclusions regarding public services and recreation as presented in this EIR. Impacts would be less than significant.

5.5.4.11 Traffic and Circulation

Locating the parking structure near Slack Street would generally not impact conclusions regarding traffic as presented in this EIR. However, the design of ingress and egress to the structure in this location would likely result in increased circulation via either Slack Street or the

Grand Avenue intersection. Impacts would range from beneficial to significant and unavoidable, similar to the proposed project.

5.5.4.12 Utilities

The alternative would not alter conclusions regarding utilities as presented in this EIR. Impacts would be less than significant.

5.5.5 Reduced Project Alternative

The principal significant and unavoidable impacts of the project identified in the EIR consist of traffic (off-campus intersection impacts from redistributed trips), and operational air quality. Typically, the severity of traffic and air quality impacts would be reduced by reducing the size of the project. However, a reduced project, in this case, results in several indirect effects; for example, the TIA states that reduced trip generation associated with a lower number of beds would be more than offset by a lower student commute trip reduction. More parking spaces would reduce redistributed trips, as noted in the TIA, but would result in greater air quality impacts associated with emissions of ROG+NOx. The impacts of a 500-space parking garage are analyzed throughout the EIR, and development of a larger parking garage is an option under the current project description. The economic feasibility of a 500-space garage is in question; however, increasing the size of the garage further is not considered viable. The relative benefits and impacts of pursuing a project with reduced bed count are outlined below.

5.5.5.1 Aesthetics

The setting is the same as for the proposed project; the implementation of this alternative would result in lower-scale but similar structures, perhaps four stories, dominating the view at Slack Street and at the Grand Avenue entrance to campus. Views along Grand Avenue would be dominated by built structures, and views of the Morros in certain locations would be somewhat obscured. Impacts are considered less than significant with mitigation, similar to but slightly less adverse than the proposed project.

5.5.5.2 Agriculture

The alternative would not alter conclusions regarding agricultural impacts as presented in this EIR. Impacts would be less than significant.

5.5.5.3 Air Quality

Reduction in bed count would reduce trip generation associated with student residents; however, reductions in new trips (0.5 per bed) would be more than offset by reductions in credits for capture of commute trips (1.72 trips per bed). Operational impacts would be significant and unavoidable, and greater than the proposed project. Construction impacts would be significant but mitigable, and slightly less than the proposed project, due to overall reduced square footage.

5.5.5.4 Biological Resources

The alternative would not alter conclusions regarding biological resources as presented in this EIR. Impacts would be less than significant after mitigation.

5.5.5.5 Geology and Soils

The alternative would not alter conclusions regarding geology and soils as presented in this EIR. Impacts would be less than significant.

5.5.5.6 Hazards and Hazardous Materials

The alternative would not alter conclusions regarding hazards and hazardous materials as presented in this EIR. Impacts would be less than significant.

5.5.5.7 Hydrology and Water Quality

The alternative would not alter conclusions regarding hydrology and water quality as presented in this EIR. Impacts would be less than significant.

5.5.5.8 Land Use and Planning

This alternative would prevent attainment of bed count objectives stated in the Master Plan. Impacts are considered less than significant, but slightly more adverse than the proposed project.

5.5.5.9 Noise

The alternative would not alter conclusions regarding noise as presented in this EIR. Impacts would be less than significant.

5.5.5.10 Public Services and Recreation

The alternative would not alter conclusions regarding public services and recreation as presented in this EIR. Impacts would be less than significant.

5.5.5.11 Traffic and Circulation

The alternative would not alter conclusions regarding traffic and circulation as presented in this EIR. Impacts would range from beneficial to significant and unavoidable.

5.5.5.12 Utilities

The alternative would not alter conclusions regarding utilities as presented in this EIR. Impacts would be less than significant or less than significant with mitigation. Impacts would be slightly less adverse due to the reduced utilities demand.

5.6 ENVIRONMENTALLY SUPERIOR ALTERNATIVE

CEQA requires the alternatives section of an EIR to describe a reasonable range of alternatives to the project that avoid or substantially lessen any of the significant effects identified in the EIR analysis while still attaining most of the basic project objectives. The alternative that most effectively reduces impacts while meeting project objectives should be considered the "environmentally superior alternative." In the event that the No Project Alternative is considered the environmentally superior alternative, the EIR should identify an environmentally superior alternative among the other alternatives. Table 5-1 includes a comparison of the alternatives discussed above.

In this EIR, the No Project Alternative results in the fewest environmental impacts, although it does not meet any of the project objectives, including provision of additional on-campus student residences in conformance with the principles of the 2001 Master Plan. The No Project – Master Plan Residential Communities Element Alternative was rejected as infeasible. Information presented in the EIR Project Description outlines why sites originally anticipated for housing development in the Master Plan have since been deemed infeasible for development.

Based strictly on an analysis of the relative environmental impacts, the proposed project, with adoption and incorporation of recommended mitigation measures, is considered the Environmentally Superior Alternative. The decision-making body will consider the whole of the record when considering the approved project including, but not limited to, public comment and testimony related to the project. The decision-making body may select the project as proposed, an alternative, or a specified combination of particular elements identified in the Alternatives Analysis, as the approved project. Primary importance is placed on meeting objectives specified herein, as well as in adopted campus and CSU planning documents. In all scenarios, the Mitigation and Monitoring Program (MMRP) would be applied to the approved project.

Table 5-1. Comparison of Alternatives

Topic	Mitigated Project	No Project – No Development	No Project – Master Plan	Location Alternative – H-12 and H-16 Parking Lots	Site Layout Alternative A – Slack Street Parking Structure	Reduced Bed Count
** LTS = less than significant, NI = no impact, SIG = significant, SU = significant and unavoidable*						
Aesthetics						
Significance	LTS	NI	LTS	LTS	LTS	LTS
Comparison to Proposed Project		<	<	<	=	<
Discussion	All of the alternatives would have similar, less than significant impacts to aesthetics. Impacts would be slightly less adverse when compared to the proposed project due to less prominent locations or smaller scale, except for the Slack Street Parking Structure alternative, which would be similar to the proposed project.					
Agriculture						
Significance	LTS	NI	LTS	LTS	LTS	LTS
Comparison to Proposed Project		=	=	=	=	=
Discussion	All of the alternatives would have similar, less than significant impacts to agriculture. The Location Alternative would redevelop an area underlain by prime soils but already developed as a surface parking lot.					
Air Quality						
Significance	SU	NI	SU	SU	SU	SU
Comparison to Proposed Project		<	=	=	=	>
Discussion	Each of the alternatives would have similar, significant and unavoidable impacts related to air quality, except for the no project alternative, which would preempt additional development, and the Reduced Project, which would reduce construction-related emissions, but increase operational emissions due to reduced commute trip capture.					
Biological Resources						
Significance	LTS	NI	LTS	LTS	LTS	LTS
Comparison to Proposed Project		<	>	>	=	=

Table 5-1. Comparison of Alternatives

Topic	Mitigated Project	No Project – No Development	No Project – Master Plan	Location Alternative – H-12 and H-16 Parking Lots	Site Layout Alternative A – Slack Street Parking Structure	Reduced Bed Count
	** LTS = less than significant, NI = no impact, SIG = significant, SU = significant and unavoidable*					
Discussion	Development of the Master Plan and alternative locations would have mitigable effects on biological resources, slightly more adverse than the proposed project due to proximity to sensitive environments. Alternatives within the project site would have similar, less than significant impacts to biological resources, when compared to the proposed project.					
Geology and Soils						
Significance	LTS	NI	LTS	LTS	LTS	LTS
Comparison to Proposed Project		<	=	=	=	=
Discussion	None of the alternatives except for the No Project – No Build alternative, would change conclusions regarding geology and soils.					
Hazards and Hazardous Materials						
Significance	LTS	NI	LTS	LTS	LTS	LTS
Comparison to Proposed Project		<	=	=	=	=
Discussion	None of the alternatives except for the No Project – No Build alternative, would change conclusions regarding hazards and hazardous materials.					
Hydrology and Water Quality						
Significance	LTS	NI	LTS	LTS	LTS	LTS
Comparison to Proposed Project		<	>	>	=	=
Discussion	The continued implementation of the Master Plan or relocation to the H-12 and H-16 parking lots would place residential development in or near areas where sensitive water resources or drainage conditions exist. Site layout or density options will not affect conclusions regarding hydrology and water quality.					

Table 5-1. Comparison of Alternatives

Topic	Mitigated Project	No Project – No Development	No Project – Master Plan	Location Alternative – H-12 and H-16 Parking Lots	Site Layout Alternative A – Slack Street Parking Structure	Reduced Bed Count
** LTS = less than significant, NI = no impact, SIG = significant, SU = significant and unavoidable*						
Land Use and Planning						
Significance	LTS	SU	SIG	LTS	LTS	SIG
Comparison to Proposed Project		>	>	=	=	>
Discussion	Based on information presented in Chapter 2 of this EIR, implementation of the existing Master Plan for residential communities has been deemed infeasible, in part because constraints at the various planned sites would inhibit attainment of bed count goals. The Reduced project alternative would likewise inhibit attainment of goals. Site layout options or relocation would not be inconsistent with applicable planning goals.					
Noise						
Significance	LTS	NI	LTS	LTS	LTS	LTS
Comparison to Proposed Project		<	=	=	>	=
Discussion	None of the alternatives except for the No Build and Site Layout alternative would affect conclusions regarding noise. The Site Layout alternative would be slightly more adverse than the proposed project due to the location of the parking structure proximate to more sensitive receptors.					
Public Services and Recreation						
Significance	LTS	NI	LTS	LTS	LTS	LTS
Comparison to Proposed Project		NA	=	=	=	=
Discussion	None of the alternatives except for the No Build alternative would affect conclusions regarding Public Services and Recreation.					

Table 5-1. Comparison of Alternatives

Topic	Mitigated Project	No Project – No Development	No Project – Master Plan	Location Alternative – H-12 and H-16 Parking Lots	Site Layout Alternative A – Slack Street Parking Structure	Reduced Bed Count
** LTS = less than significant, NI = no impact, SIG = significant, SU = significant and unavoidable*						
Traffic and Circulation						
Significance	SU	NI	SU	SU	SU	SU
Comparison to Proposed Project		>	=	=	>	>
Discussion	Reducing project size or pursuing No Build would negate the trip commute reduction credit associated with the proposed project. Locating the parking structure at Slack Street would increase circulation impacts on the Grand and Slack intersection.					
Utilities						
Significance	LTS	NI	LTS	LTS	LTS	LTS
Comparison to Proposed Project		<	=	=	=	<
Discussion	The Reduced or No Project alternative would reduce demand for utilities. All other alternatives would result in similar demand when compared to the proposed project.					
Overall Impact Compared to the Proposed Project	**0**	**< (6)**	**> (2)**	**> (1)**	**> (2)**	**> (1)**

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CHAPTER 6
OTHER CEQA CONSIDERATIONS

6.1 GROWTH INDUCING IMPACTS

CEQA Guidelines §15126.2(d) requires an EIR to discuss the growth inducing impacts of a proposed project, including the ways in which the project would foster economic or population growth, encourage the construction of additional housing, or remove an obstacle to population growth in the surrounding environment, either directly or indirectly. The goal of the growth inducing impacts section of the EIR is to address the effects the proposed project may have on surrounding facilities and activities by assessing the ways in which a project could encourage population or economic growth, increase employment opportunities or employment growth in support of an industry, or stimulate the construction of new housing or service facilities.

Based on the CEQA Guidelines criteria outlined above, the proposed project was evaluated in order to determine if any part of the project demonstrates the potential to result in growth inducing impacts. The project proposed consists of campus housing for existing freshman students at the University. The project site is an infill site, currently used for surface parking within the developed campus. The project would not increase enrollment, and would not include bed count beyond the amount projected in the Master Plan. Other than temporary employment associated with construction, the project would create approximately 30 new professional positions at the University; other jobs would be filled by existing staff or students. The project would provide limited employment growth. The potential growth is considered *less than significant (Class III)*.

6.2 SIGNIFICANT IRREVERSIBLE ENVIRONMENTAL CHANGES

CEQA Guidelines §15126.2(c) states that an EIR should include a discussion of any significant irreversible environmental changes which would be caused by the proposed project should it be implemented. The project would have the following long-term significant impacts:

- Contribute redirected trips to deficient area intersections
- Exceed daily operational air quality thresholds for ROG + NOx
- Contribute, under one threshold, GHG emissions which contribute to climate change

As discussed in the various topical sections, the project will have several benefits which offset the stated impacts, or will meet other optional thresholds for the stated impacts. However, impacts, as stated, are considered *significant and unavoidable (Class I)*.

6.2.1 Irreversible Commitment of Non-Renewable Resources

CEQA Guidelines §15126.2(c) states that use of nonrenewable resources during the initial and continued phases of a proposed project may constitute an irreversible environmental change if a large commitment of such resources makes their removal or re-use thereafter unlikely. Nonrenewable resources such as natural gas, petroleum products, asphalt, steel, copper and other metals, and sand and gravel are considered to be commodities which are available in a finite supply. Increases in building will directly result in the demand for additional nonrenewable resources; therefore, the demand for all such resources is expected to increase regardless of whether or not the project is developed. The University complies with strict recycling and sustainability guidelines in construction projects, achieving an 80% diversion rate in a recent,

large scale project, and sourcing sustainable building materials such as recycled steel where feasible. The project's contribution to demand for resources is considered *less than significant (Class III)*.

CHAPTER 7
MITIGATION MONITORING AND REPORTING PROGRAM

7.1 STATUTORY REQUIREMENT

When a Lead Agency makes findings on significant environmental effects identified in an EIR, the agency must also adopt a "reporting or monitoring program for the changes to the project which it has adopted or made a condition of approval in order to mitigate or avoid significant effects on the environment" (Public Resources Code §21081.6(a) and CEQA Guidelines §15091(d) and §15097). The Mitigation Monitoring and Reporting Program (MMRP) is implemented to ensure that the mitigation measures and project revisions identified in the EIR are implemented. Therefore, the MMRP must include all changes in the proposed project either adopted by the project proponent or made conditions of approval by the Lead or Responsible Agency.

7.2 ADMINISTRATION OF THE MITIGATION MONITORING AND REPORTING PROGRAM

The Board of Trustees of the CSU is the Lead Agency responsible for the adoption of the MMRP. The applicant, Cal Poly San Luis Obispo, is responsible for implementation of the MMRP, in coordination with other identified agencies. According to CEQA Guidelines §15097(a), a public agency may delegate reporting or monitoring responsibilities to another public agency or to a private entity that accepts the delegation. The Trustees delegate responsibility for verifying and documenting compliance with the MMRP to the local campus, in this case, Cal Poly San Luis Obispo; specifically, the Facilities Planning and Capital Projects department, as coordinator of the project and its construction, will be responsible for compliance. However, until mitigation measures have been completed, the Lead Agency remains responsible for ensuring that the implementation of the measure occurs in accordance with the program.

7.3 MITIGATION MEASURES AND REPORTING PROGRAM

Table 7-1 is structured to enable quick reference to mitigation measures and the associated monitoring program based on the environmental resource. The numbering of mitigation measures correlates with numbering of measures found in the Environmental Impact Analysis chapter of this EIR (refer to Chapter 4).

Table 7-1. Mitigation Monitoring and Reporting Program

Mitigation Measure	Requirements of Measure	Compliance Method	Verification Timing	Responsible Party
Aesthetic Resources				
AES/mm-1	Prior to approval of the development plan, the University shall prepare a comprehensive Landscape Plan for review and approval by the CSU. The Landscape Plan shall be prepared by a licensed Landscape Architect. The Landscape Plan, as it relates to the plaza and surface parking areas at the northern portion of the project site, shall include the following in conjunction with other view-preserving measures determined by the Landscape Architect: a. The minimum number of trees shall be planted which meet the aesthetic and climatological need of the site. b. Trees shall be clustered, leaving substantial open areas to allow views and sightlines from Grand Avenue to the Morros; c. New trees within 30 feet of the new parking structure shall not exceed the height of the adjacent parking structure facade; d. New trees further than 30 feet from the new parking structure shall not exceed 20 feet in height; e. No new street trees shall be planted on Grand Avenue project frontage north of the northern-most new student housing structure; f. Deciduous trees shall be used to the greatest extent practical.	Document through plan check	Prior to final plan approval	Cal Poly
AES/mm-2	Prior to approval of the development plan, the University shall prepare a comprehensive Landscape Plan for review and approval by the State Architect. The Landscape Plan shall be prepared by a licensed Landscape Architect. The Landscape Plan, in addition to other measures listed in this report, shall include the following: a. Trees and shrubs shall be planted along the southern and western perimeters of the project for the purpose of screening the new structures from off campus viewing locations to the south and west. Planting shall	Document through plan check	Prior to final plan approval	Cal Poly

Mitigation Measure	Requirements of Measure	Compliance Method	Verification Timing	Responsible Party
	provide visual screening of at least 50 percent of the project as seen from viewpoints on Slack Street and shall occur as soon as practical in coordination with the grading and construction plans and schedule.			
AES/mm-3	As soon as practical after commencement of construction, the University shall install fencing and/or landscape screening along the Slack Street frontage of the site to screen construction activities from view. Staging areas will be located generally away from Slack Street, and the southern end of the project site shall be planted as soon as practical.	Include specifications on plans; document compliance during field inspection	Initial project construction	Cal Poly
AES/mm-4	Prior to approval of the development plan, the applicant shall submit a comprehensive lighting plan for review and approval by the CSU. The Lighting Plan shall be prepared by a qualified engineer who is an active member of the Illuminating Engineering Society of North America (IESNA) using guidance and best practices endorsed by the International Dark Sky Association. The lighting plan shall address all aspects of the lighting, including but not limited to all buildings, infrastructure, surface parking lots, parking garage decks, portals and driveways, paths, recreation areas, safety, and signage. The lighting plan shall include the following in conjunction with other measures as determined by the illumination engineer: a. The point source of all exterior lighting shall be shielded from off-site views; b. Light trespass from exterior lights shall be minimized by directing light downward and utilizing cut-off fixtures or shields; c. Lumination from exterior lights shall be the lowest level allowed by public safety standards; d. Exterior lighting shall be designed to minimize illumination onto exterior walls; and, e. Any signage visible from off-site shall not be internally laminated.	Document through plan check	Prior to final plan approval	Cal Poly

Mitigation Measure	Requirements of Measure	Compliance Method	Verification Timing	Responsible Party
Air Quality				
AQ/mm-1	Prior to the start of construction, verify through written documentation submitted to the SLOAPCD that the following standards are met: a. All construction equipment is equipped with Tier 3 or better engines, to the maximum extent feasible. b. Architectural Coatings specified meet VOC limits, including 50 g/L for Residential Interiors and Exteriors and 100 g/L for Non-residential Interiors and Exteriors. c. The schedule for Architectural Coatings application will be extended, limiting the daily coating activity.	Document in writing to APCD	Prior to start of construction	Cal Poly
AQ/mm-2	In order to minimize DPM impacts to sensitive receptors proximate to the project site, the following mitigation is proposed in conjunction with measures included in the project, and AQ/mm-1. a. Staging and queuing areas shall be located as distant as possible from sensitive receptors. b. Diesel idling greater than 5 minutes is not permitted. c. Signs specifying the idling limitations shall be installed on-site for the duration of construction.	Include in project specifications and denote on plans where needed. Verify compliance in field through inspection	Prior to final specification and plan approval; field check during construction	Cal Poly
AQ/mm-3	If previously undocumented pipe is encountered during excavation, a preliminary evaluation of the pipe composition will be performed. If transite pipe is suspected, a qualified handler will be retained to oversee preparation, removal, and disposal of the material in accordance with existing regulations.	Document compliance if condition encountered	As needed	Cal Poly
AQ/mm-4	Prior to final design a qualified consultant shall review the proposed parking structure design, including the ancillary buildings and determine that the natural or mechanical ventilation systems are designed so as to minimize exposure to vehicle generated air pollution and prevent the buildup of emissions in the area around the ancillary building	Verify through plan check	Prior to final plan approval	Cal Poly

Mitigation Measure	Requirements of Measure	Compliance Method	Verification Timing	Responsible Party
Biological Resources				
BR/mm-1	Prior to commencement of construction or tree removal, if such activities are scheduled to begin during the typical bird nesting season (from March 1 to August 31) a qualified biologist shall be retained to conduct a pre-construction survey (approximately one week prior to construction) to determine presence/absence for tree nesting birds or bats. If no nesting activities are detected within the proposed work area, construction activities may proceed and no further mitigation is required. If nesting activity on site is confirmed during pre-construction nesting surveys, work activities shall be delayed within 300 feet (500 feet if raptors) of active nests until the young birds have fledged and left the nest. To the extent feasible, tree removal shall be scheduled outside of typical nesting seasons to prevent impacts.	Document compliance	As needed	Cal Poly
Cultural Resources				
CR/mm-1	If soil excavation associated with grading activities requires disturbance of bedrock formations, a qualified paleontologist will be retained to monitor construction activities in those areas. Should any vertebrate fossils or potentially significant finds (e.g., numerous well-preserved invertebrate or plant fossils) be encountered during work on the site, all activities in the immediate vicinity of the find shall cease until the qualified paleontologist evaluates the find for its scientific value. If deemed significant, the paleontological resource(s) shall be salvaged and deposited in an accredited and permanent scientific institution where they will be properly curated and preserved.	Document compliance	As needed	Cal Poly
Geology and Soils				
GS/mm-1	Prior to final plan approval, Cal Poly shall incorporate into the project design and implement all recommendations identified in the Soils Engineering Report (Earth Systems Pacific 2013), including any subsequent revisions or modifications, and/or all recommendations included in the final geotechnical report	Verify through plan check	Prior to final plan approval	Cal Poly

Mitigation Measure	Requirements of Measure	Compliance Method	Verification Timing	Responsible Party
	prepared for the project. All recommendations shall be shown on final plans and/or included as project specifications.			
GS/mm-2	Prior to final plan approval, plans shall demonstrate implementation of standard construction-related erosion control measures that identify how disturbed soils will be stabilized to prevent wind and water erosion during construction and immediately following construction until revegetation activities are initiated, including, i.e., through the use of temporary soil stabilizers, timing of construction activities to avoid the rainy season (if feasible), use of water for dust control, appropriate siting or hydro-seeding of stockpiles, limits on the amount and length of time material can be stockpiled onsite prior to removal and disposal or reuse elsewhere on campus, and implementation of all measures identified in the all BMPs identified in the RWQCB-approved SWPPP. All erosion control measures shall be listed on final grading plans and proper implementation shall be confirmed by the environmental compliance monitor throughout project construction.	Verify through plan check	Prior to final plan approval	Cal Poly
Traffic and Circulation				
TC/mm-1	Prior to final plan approval, Cal Poly shall develop and incorporate into project design plans, a pedestrian management plan that includes as project specifications the following pedestrian improvements. All pedestrian improvements shall be designed in consultation with a qualified traffic engineer and shall meet or exceed applicable standards for the development of similar structures. a. Sidewalks should be provided around the frontage of the project site, including along Pacheco Way and along the north side of Slack Street. b. Marked crosswalks should be provided to transition pedestrians from the existing off-site sidewalk network to the on-site pedestrian facility network. The location of crosswalks should be determined in consultation with a qualified traffic engineer and should be sited to sufficiently deter pedestrians from leaving separated pedestrian facilities and entering surrounding	Document inclusion in project specifications	Prior to final plan approval	Cal Poly

Mitigation Measure	Requirements of Measure	Compliance Method	Verification Timing	Responsible Party
	roadways to access adjacent areas. c. Forecasted heavily traveled pedestrian areas, such as the Pacheco Way pedestrian crossing that provides access to the campus core, should be identified. The need to implement feasible measures to improve visibility of the facilities and promote comfortable walking and bicycling access to other areas of the campus shall be discussed. Recommendations shall be made by a qualified traffic engineer as to the need for such improvements, which could include enhanced bulbouts, raised crossings, lighting, or similar features.			
Utilities				
UTIL/mm-1	The University will continue to monitor wastewater volumes and purchase additional shares in the treatment plant prior to exceedance of current agreement limits.	Continue ongoing documentation of wastewater	Ongoing	Cal Poly

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CHAPTER 8
REFERENCES AND REPORT PREPARATION

8.1 REFERENCES

All the references herein are available for public review at the University except where noted. The public, between 8:30 am and 4:30 pm Monday through Friday, can view references, by appointment, upstairs at the Facilities Planning and Capital Projects Department, Building 70. Interested parties can contact Joel Neel, Director, at 805.756.2193, to schedule an appointment. Certain references are also available on the University's webpage, at http://afd.calpoly.edu/facilities/facp_index.asp. Other materials are available at the Kennedy Library on campus.

Some references are not available at the University. Such references may be housed at the offices of consultants. Requests to view or obtain copies of such materials will be honored where feasible within five working days of filing such a request with Mr. Neel, (805) 756-2193.

Where materials are out of print, copyright protected, or otherwise cannot be duplicated or loaned, the University has attempted to identify where materials may be viewed. In some cases, the University will be unable to produce source documents, but can direct interested parties to the responsible consultant for more information.

8.1.1 CSU General Reference Documents and Websites

California Polytechnic State University, San Luis Obispo (Cal Poly). 2001. *Cal Poly Master Plan and Final EIR*. March 21, 2001.

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