FINAL
ENVIRONMENTAL IMPACT REPORT

STATE CLEARINGHOUSE NO. 2017081035

CAL STATE UNIVERSITY, DOMINGUEZ HILLS CAMPUS MASTER PLAN

ENVIRONMENTAL IMPACT REPORT

PREPARED FOR:

CALIFORNIA STATE UNIVERSITY BOARD OF TRUSTEES

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CALIFORNIA STATE UNIVERSITY, DOMINGUEZ HILLS

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Preface to the Final EIR

In compliance with California Environmental Quality Act (CEQA) Guidelines Section 15132, this document, serves as the Final Environmental Impact Report (Final EIR) for the proposed California State University, Dominguez Hills Campus Master Plan (Project) (September 2019) (SCH No. 2017081035)[1]. In accordance with the CEQA, the Draft Environmental Impact Report (DEIR) for the Project was posted for a 45-day public review period from February 11, 2019 to March 29, 2019.

Section 15132 requires that the Final EIR consist of the following components:

1. The Draft EIR or a revision of the draft;
2. Comments and recommendations received on the Draft EIR either verbatim or in summary;
3. A list of persons, organizations, and public agencies commenting on the Draft EIR;
4. The responses of the Lead Agency to significant environmental points raised in the review and consultation process; and
5. Any other information added by the Lead Agency.

As required, this document contains the public comments received in response to the DEIR, as well as all written responses to those comments. A list of the persons, organizations, and public agencies commenting on the Draft EIR is provided in Chapter 0.4, Letters of Comment and Responses. In addition, this document also contains revisions to the DEIR with additions shown in underline and deletions shown in ~~strikethrough~~.

INTRODUCTION

This **Preface**, which serves as an introduction to the Final EIR, provides a summary of the public review process; an overview of the Final EIR contents; and a summary of the changes made to the DEIR text in response to comments and community input received during the public comment period.

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[1] The Draft EIR identified the title of the Project as the "2018 Campus Master Plan." In light of the temporal attributes of this Final EIR and the schedule for the CSU Board of Trustees' consideration of the Project, use of "2018" has been removed from the Final EIR's cover page and page footers. However, in order to minimize the number of non-substantive edits, the use of "2018," when used to identify the title of the Project, has not been stricken throughout this document. This nomenclature change is not substantive and no aspect of the Project Description is changed as a result of this clarifying edit.

Public Review Process

The Board of Trustees of the California State University, acting as lead agency, prepared the DEIR to inform decision-makers and the public of the potential significant environmental effects associated with the proposed Project. The DEIR was circulated for public review and comment for 45 days, from February 11, 2019, through March 29, 2019. A Public Notice of Availability of the DEIR was published in a newspaper of general circulation, and mailed to all organizations and individuals previously requesting notice. CSU provided copies of the complete DEIR with appendices to the State Clearinghouse, which, in turn, distributed the DEIR to all interested state agencies for review and comment. Copies of the DEIR were also delivered to libraries in the City of Carson.

The public review process included a meeting at which CSUDH staff and the EIR consultants appeared at a community meeting held during the public review period to provide the community with an overview of the DEIR and the proposed Project, and to answer the community's questions. (Please see supporting materials for the NOA that included the public meeting details).

Interested persons and organizations had the opportunity to submit their written comments on the DEIR during the public review period. On February 25, 2019, the City of Carson requested that the DEIR's public review period be extended due to the requested addition of the Transportation Impact Study Appendices. CSUDH responded to that request on March 19, 2019, and the requested Appendices were added to the public review files, and the public review period for the DEIR was extended to April 15, 2019.

Written comments were received from multiple individuals and agencies, of which a majority of the comments pertained to traffic analyses, the city's role as a permitting authority, StubHub Center analysis, air quality and health, biological and cultural resources, utilities, and public services and recreation. In response to certain comment, revisions were made to certain sections in the Final EIR to provide clarification or additional information, and additional materials were provided in the appendices to the Final EIR as addressed further below.

Overview of the Final EIR

The Final EIR consists of the following components, in the following order:

1. List of persons, organizations, and public agencies commenting on the Draft EIR;
2. Comments and Responses from persons, organizations, and public agencies;
3. The Draft EIR (February 2019) with additions shown in <u>underline</u> and deletions shown in ~~strikethrough~~; and
4. Additional Appendices, as integrated into the DEIR Appendices and as listed below

Revisions to the Draft EIR

The following list summarizes the substantive changes made to the EIR since public review. These changes are reflected with additions shown in <u>underline</u> and deletions shown in ~~strikethrough~~

within the Final EIR. Supporting materials that supplement these revisions are attached additional appendices as noted below.

- Section 3.2 Air Quality
    - Project Impacts was revised to include project related health effects analysis included within the Ramboll Air Quality Impacts Analysis report found in Appendix B.4.
- Section 3.3 Biological Resources
    - Regulatory Setting was revised to include relevant California Fish and Game Code sections pertaining to the protection of nesting birds.
    - Environmental Setting was revised to clarify that the ultimate determination of "jurisdiction" rests with the U.S. Army Corps of Engineers (Corps) and their Section 404 review of the Project as it concerns the northern seasonal wetland on the project site.
    - Mitigation Measure BIO-4 was revised to address fairy shrimp and the Section 404 permit process separately in a conservative effort to account for the Corp's anticipated role in the jurisdictional wetland determination. These changes have been carried through to the Executive Summary.
- Section 3.4 Cultural Resources
    - Regulatory Setting was revised to include relevant regulations to Paleontological Resources.
    - Existing Conditions was revised with information regarding specific research on the built environment on the campus completed by architectural historians.
    - Mitigation Measures have been revised to clarify specific requirements of archeological and paleontological measures. These changes have been carried through to the Executive Summary.
- Section 3.10 Utilities and Service Systems
    - Impact analysis under Threshold 2, availability of future water supplies was revised per analysis contained within the June 2019 Water Supply Assessment (WSA). The significance determination has been changed from Significant to Less than Significant. This change has been carried through to the Executive Summary and Other Environmental Considerations.
- Executive Summary
    - Mitigation measures and significance conclusions have been revised per the revisions listed above.
- Section 4.0 Other Environmental Considerations
    - The Significant and Unavoidable Impacts section was revised to exclude the utilities (water supply) significant impact of the DEIR. Mitigation measures for the biological and cultural resources sections were also revised in this section to reflect the changes listed above.

- Section 5.0 Alternatives
    - Conclusions related to water supply have been revised within the Alternatives chapter due to consideration of the 2019 WSA.

Terminology Clarifications

The Final EIR also includes clarifying edits associated with the terminology used to describe certain components of the Project. These edits have been implemented to maintain consistency and enhance clarity throughout the Final EIR. As with other revisions to the Final EIR described above, these changes are reflected throughout the Final EIR with additions shown in underline and deletions shown in ~~strikethrough~~. Additionally, where appropriate, relevant figures have been updated in the Final EIR; in order to facilitate the identification of updated figures, the notation "(Updated)" has been added to pertinent figure titles. The terminology clarifications listed below were not implemented in the EIR Appendices, nor in any graphics or tables in the Final EIR that include content within the Appendices.

- **"Campus Apartment Housing"** in lieu of "Market Rate Housing" and "residential," when referring to the residential component of the University Village.
- **"Campus Business Park"** in lieu of "Business Park" and "Office," when referring to non-residential and non-retail development in the University Village.
- The term "Mixed-used" has been eliminated from the Final EIR.

Additional Appendices

- **Appendix A**

  A.7 Notice of Availability Draft EIR

  A.8 Notice of Completion Draft EIR

  A.9 Draft EIR Public Review Period Newspaper Ad

  A.10 Notice of Availability Extended; SCH stamped form

  A.11 SCH Memorandum

- **Appendix B.**

  B.4 Ramboll – Air Quality Impact Analysis 2019

  B.5 Friant Ranch Interim Recommendation

- **Appendix F**

  F.2 City of Carson, February 25, 2019 letter requesting extension

F.3 City of Carson March 8, 2019 letter requesting traffic information

F.4 CSU Dominguez Hills, March 19, 2019 response letter to the City of Carson, March 8, 2019

F.5 Traffic Data requested by the City of Carson

- **Appendix G**

  G.8 Water Supply Assessment 2019

  *Note: G.8 supersedes G.4 and G.5, which has been removed.

- **Appendix I**

  I.1 Public Services Questionnaire

Executive Summary

This Environmental Impact Report (EIR) is an informational document prepared in accordance with the California Environmental Quality Act (CEQA).[1] The EIR is intended for use by the Board of Trustees of the California State University (CSU), other public agencies, and the general public in evaluating the potential environmental effects of the California State University, Dominguez Master Plan (proposed project) and alternatives thereto, as well as the mitigation measures recommended to avoid or minimize the identified significant environmental effects.

In accordance with CEQA Guidelines Section 15123,[2] this Executive Summary provides a brief description of the proposed project and identifies significant environmental impacts, areas of known controversy and issues to be resolved, recommended mitigation measures, and evaluated alternatives. The Executive Summary is not intended to replace the information and analysis contained elsewhere in this EIR, including its supporting appendices.

The CSU Board of Trustees is the Lead Agency under CEQA for preparation and certification of this EIR for the requested discretionary project approvals. The Board of Trustees has exercised, and will continue to exercise, its independent judgment and discretion in evaluating the proposed project, its impacts, the alternatives, and the proposed mitigation measures prior to taking any final actions with regard to the project.

Project Summary

The proposed project is the adoption and implementation of CSUDH's 2018 Campus Master Plan. The proposed project retains the existing campus enrollment cap of 20,000 full-time-equivalent students (FTES), while providing a framework for development of the University's campus in a forward-looking manner that accommodates growth from the current enrollment of approximately 11,000 FTES to the maximum enrollment of 20,000 FTES over a planning horizon extending to 2035. The proposed project serves to revise and update the previously approved Campus Master Plan, which provided for a number of new campus facilities and improvements.

The proposed project entails development of new and expanded facilities in three areas of the 344-acre campus: (1) the Core Campus; (2) the University Village; and (3) the StubHub Center.

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1 CEQA is located at Section 21000 et seq. of the Public Resources Code.

2 The CEQA Guidelines are located at Section 15000 et seq. of Title 14 of the California Code of Regulations.

The Core Campus project component occupies 179.5 acres and includes:

- twelve new academic and administrative facilities, including: classrooms, laboratories, faculty and administrative offices, new performing arts facilities, a new incubator/research facility, and facilities for accommodating CSUDH's new mobile Fabrication Lab vehicles;
- student support facilities, including: an expansion of the Loker Student Union, new student apartment housing, and a new student recreation center;
- athletic facilities, including: a remodeled gymnasium and existing and new playfields;
- campus support facilities, including: a new, expanded Child Care Center, new Facilities Services offices and yards, expansion of the existing Central Plant, a satellite central plant; and a new electric substation.
- parking facilities to accommodate 20,000 FTES, including reconfigured surface lots and new parking structures;
- reconfigured campus entries at both north and south, including new campus visitor services and reconfigured vehicle access to parking facilities;
- open space areas for campus activities, programmed and informal gathering and recreation; and
- existing natural reserve areas and a new area for an urban farm project.

The University Village project component occupies 76.5 acres and is a new planned ~~mixed-use~~ campus development that includes:

- new retail uses to support both the Core Campus and the University Village, including on-street parking and parking in structures;
- new housing, including ~~market-rate apartments~~campus apartment housing, which will provide housing for faculty and staff, students and the general public;
- ~~business park~~campus business park development targeted to uses compatible with and supportive of the University's educational mission;
- open space areas for informal activities, leisure, gathering and recreation including a new one-acre park;
- preservation of an existing natural reserve area; and
- reconfigured vehicle circulation including an extension of Birchknoll Drive and reconfigured vehicle access from Central Avenue.

The StubHub Center, occupying the western-most 88 acres of the campus, currently includes an existing stadium, and will include additional facilities previously approved as part of the 2010 Campus Master Plan. The proposed project includes the following with respect to the StubHub Center:

- stadium capacity will be increased by 3,000 seats. Currently, the stadium has seating for 27,000 spectators when configured for the Los Angeles Galaxy Major League Soccer (MLS) games, and will have seating for 30,000 spectators when configured for Los Angeles Chargers National Football League (NFL) games to be held on Sundays through 2020, and for other events; and
- reorientation of previously approved facilities within the StubHub Center, which were approved as part of the 2010 Campus Master Plan. Specifically, the proposed project includes reorientation of Building 122 - Office Complex and Field House/Training Facility; Building 123 – Dormitories; and Building 124 - Conference Center/Hotel. These proposed facilities were originally aligned in a parallel manner on a site between Victoria Avenue and the soccer stadium. Reorientation of these buildings consists of aligning them perpendicular to Victoria Street, with no change in size, square footage, floor area, height, or overall capacity. Further, these facilities will be located in the same area of the StubHub Center consistent with the 2010 Campus Master Plan.

For additional information describing the proposed project, please refer to **Section 2.0**, Project Description, of this EIR.

Project Location

The project site is the CSUDH campus, located in the City of Carson, in Los Angeles County. The campus consists of approximately 344 acres, and is bounded on the north by Victoria Street, on the south by University Avenue, on the west by Avalon Boulevard, and on the east by Central Avenue. Central Avenue provides access to the campus from the State Route 91 (SR-91) freeway.

The campus is surrounded by existing, predominantly single-family residential development to the north across Victoria Street and to the south across University Avenue; residential and commercial development to the west across Avalon Boulevard; and light industrial park facilities to the east across Central Avenue. The surrounding areas are fully developed, with very few vacant undeveloped parcels remaining. Los Angeles County Fire Station 116 is located directly across from the campus on Victoria Street.

Project Objectives

The proposed project objectives are rooted in the University's overall educational mission. The project's main objective is to provide for the long-term development of the campus in a manner that supports the academic, research, and service needs of the University's students, faculty, and staff; maintains and enhances the University's capacity as a regional center for intellectual development and cultural activity for students, faculty, and staff; and enhances the student experience and attracts and retains high quality faculty and staff. Thus, overall, the project purpose/vision is to become a vital physical campus that supports all activities needed for a top-performing Model Urban University accommodating 20,000 FTES in a manner cohesive with the surrounding community and environment. For a full delineation of the project objectives, please see **Section 2.0**, Project Description, of this EIR.

The University's Role as a Community Asset

CSUDH fulfills an important role in providing education, economic, social, and cultural benefits within the City of Carson, the Los Angeles region, and the State of California. It is the seventh largest CSU campus in terms of enrollment. Some of these benefits are highlighted below.

As to economic benefits, annual spending related to CSUDH (approximately $190 million) generates a total impact of approximately $328 million on the regional economy, and approximately $335 million on the statewide economy. This impact sustains nearly 3,000 jobs in the region and statewide economy. On an annual basis, the impact generates more than $18 million in local tax revenues and nearly $20 million in statewide tax revenues.

CSUDH also enhances the quality of life in the Los Angeles region through community service, arts, and culture. The University is a center for cultural life in the South Bay area of Los Angeles County. Among the University's important components is the Library South Wing, a state-of-the-art facility that will serve the University and community far into the 21st century by meeting the evolving educational, research, and cultural needs of both the University and the surrounding community with features such as a technologically advanced archival storage and research area. In addition, the University's award-winning University Theatre and Edison Theater complex is home to the Theatre Arts Department, including the Teatro Dominguez theatre company and the New African Grove Black Theatre Program, and offers plays, readings, musical concerts, dance recitals, lectures, local entertainment, and cultural programs. The Loker Student Union serves as a social and cultural center and event venue for the campus and surrounding community, providing 120,000 square feet of meeting and event space, including the 800-seat Dominguez Ballroom, conference rooms, a sports bar, and a fine dining restaurant. The University Art Gallery is one of the major exhibition spaces of the South Bay area, holding five exhibitions per year. With over 2,000 square feet of exhibition space, the Gallery can accommodate large-scale paintings and sculptures by local and national artists, and is also used as a forum for student art critique classes, discussions with artists, University and community guest lecture series and events.

The campus also includes facilities for NCAA Division II athletic programs and is the site of the StubHub Center, which includes an existing 27,000-seat stadium, home to MLS's Los Angeles Galaxy and a temporary home to the NFL Los Angeles Chargers. StubHub Center is also an official U.S. Olympic training site and multi-sports complex for world-class soccer, tennis, track and field, lacrosse, and cycling, as well as other events. CSUDH students gain work experience as interns at the StubHub Center and student-athletes have the use of StubHub Center soccer training fields and a 3-mile jogging trail with twelve fitness stations.

Finally, the California Academy of Math and Science, a high school in the Long Beach Unified School System, is located on the CSUDH campus; academy students have the opportunity to enroll in college-level courses at CSUDH.

Summary of Environmental Impacts and Mitigation Measures

Table ES-1, Summary of Environmental Impacts and Mitigation Measures, provides a summary of the EIR's impact analysis, mitigation, and level of significance of impact after mitigation for each environmental category pursuant to the CEQA Guidelines Section 15123(b)(1). **Section 3.0**,

Environmental Analysis, of this EIR contains the information and analysis for each environmental issue found to have significant impacts, as well as the recommended mitigation. For more detailed discussion, please see **Section 3.1** through **Section 3.10** of this EIR.

Also, as stated in **Section 1.0**, Introduction, of this EIR, the Initial Study (IS) prepared and circulated with the Notice of Preparation (NOP) for public review on the proposed project (see **Appendix ~~1.0~~ A.1** of this EIR) concluded that the proposed project would not result in significant impacts to agriculture and forestry resources, geology and soils, hazards and hazardous materials, hydrology and water quality, land use and planning, or mineral resources; as a result, these topics are not addressed in the EIR and are not summarized in **Table ES-1**.

Table ES-1
Summary of Environmental Impacts and Mitigation Measures

Significance Criteria	Impact?	Mitigation Measures	Level of Significance After Mitigation
Aesthetics			
Would the project have a substantial adverse effect on a scenic vista?	Less than significant	None	N/A
Would the project substantially damage scenic resources, including, but not limited to, trees, rock outcroppings, and historic buildings within a state scenic highway?	No impact	None	N/A
Would the project conflict with applicable zoning and other regulations governing scenic quality?	Less than significant	None	N/A
Would the project create a new source of substantial light or glare which would adversely affect day or nighttime views in the area?	Less than significant	None	N/A
Air Quality			
Would the project conflict with or obstruct implementation of the applicable air quality plan of the SCAQMD?	Significant	**AQ-3:** Upon approval of the 2018 Campus Master Plan, CSUDH shall send a letter to SCAQMD and SCAG notifying the agencies of the approved campus development (with information about approved land uses, etc.), and such letter shall specifically request that the agencies include the approved campus development in all future regional growth forecasts. This letter commitment will ensure that campus growth-related emissions are accounted for in future regional emissions inventories.	Significant and unavoidable

Table ES-1
Summary of Environmental Impacts and Mitigation Measures

Significance Criteria	Impact?	Mitigation Measures	Level of Significance After Mitigation
Would the project result in a cumulatively considerable net increase of any criteria pollutant for which the project region is in non-attainment under an applicable federal or state ambient air quality standard?	Significant	**AQ-1:** During the project's grading phase, 2010 or newer diesel haul trucks shall be used to transport on-site soil, to the extent available. **AQ-2:** All off-road, diesel-powered construction equipment greater than 50 horsepower shall meet Tier 4 emission standards, where available. At a minimum, all off-road, diesel-powered construction equipment greater than 50 horsepower shall meet the Tier 3 emission standards for non-road diesel engines promulgated by the USEPA. In addition, all off-road, diesel-powered construction equipment that is not Tier 4 shall be outfitted with Best Available Control Technology (BACT) devices certified by CARB, provided those devices are commercially available and: (1) achieve the standards of Cal/OSHA; (2) are consistent with the construction equipment warranty requirements; (3) are compatible with equipment specifications of the construction equipment manufacturer; and (4) do not otherwise interfere with the proper functioning of the construction equipment. Any BACT devices used shall achieve emissions reductions that are equal to or greater than a Level 3 diesel emissions control strategy for a similarly-sized engine, as defined by CARB regulations, if the devices are commercially available and satisfy the four requirements enumerated above. **AQ-4:** CSUDH shall develop Green Product educational materials that shall be made available to all campus	Significant and unavoidable

Table ES-1
Summary of Environmental Impacts and Mitigation Measures

Significance Criteria	Impact?	Mitigation Measures	Level of Significance After Mitigation
		faculty, staff and students via the campus website, student handbook and orientation materials, and employee handbook and orientation materials. The Green Product educational materials also shall be made available to all residential and non-residential tenants within the University Village portion of the campus. The educational materials shall be tailored to residential, non-residential, and institutional consumers, and include information regarding: (1) the environmental benefits of low VOC/ROG consumer products; (2) the use of cleaning compounds, polishes and floor finishes, cosmetics and personal care products, home, lawn and garden products, and paints and architectural coatings; and, (3) the importance of recycling and purchasing recycled materials. **AQ-5:** When residential appliances are offered by homebuilders in the University Village portion of the CSUDH campus, the project shall install Energy Star appliances (specifically, clothes washers, clothes dryers, dish washers, fans and refrigerators). Additionally, the Transportation Demand Management (TDM) Plan set forth in **Section 3.9**, Traffic and Circulation, of this EIR shall be implemented. As described therein, the TDM Plan shall reduce vehicle trips and increase the use of transit, bicycling and pedestrian use on campus, which serves to result in co-benefits in the form of emission reductions.	

Table ES-1
Summary of Environmental Impacts and Mitigation Measures

Significance Criteria	Impact?	Mitigation Measures	Level of Significance After Mitigation
Would the project expose sensitive receptors to substantial pollutant concentrations?	Less than significant	None	N/A
Would the project result in other emissions (such as those leading to odors) adversely affecting a substantial number of people?	Less than significant	None	N/A
Biological Resources			
Would the project have a substantial adverse effect, either directly or through habitat modifications, on any species identified as a candidate, sensitive, or special status species in local or regional plans, policies, or regulations, or by the CDFW or USFWS?	Significant	**BIO-5:** Thirty days prior to the commencement of construction, a preconstruction burrowing owl survey shall be performed by walking through the identified suitable habitat and areas within 500 feet of the new facility or improvement impact zone. This shall consist of a single survey with the focused intent of determining whether burrowing owls are still absent from the study area. If no burrowing owls are observed/detected, additional mitigation is not required. If burrowing owls are observed, mitigation measure BIO-6 shall be implemented. **BIO-6:** If the species is present outside the breeding season (September 1 through February 28), passive relocation shall be performed by a qualified biologist. No permits are necessary for this work. Prior to passive relocation of the birds from occupied burrows, potentially suitable burrows within the study area shall be collapsed so that the birds being passively relocated do not occupy a nearby burrow. At least 48 hours shall pass between the	Less than significant

Table ES-1
Summary of Environmental Impacts and Mitigation Measures

Significance Criteria	Impact?	Mitigation Measures	Level of Significance After Mitigation
		start of passive relocation and the collapse of the occupied burrows. This methodology shall ensure that the birds are not present. If the species is found to be present and it is within the breeding season (March 1 through August 31), construction will not occur within 300 feet of the active burrows until it has been confirmed by a qualified biologist that the nesting effort has been completed. At that time, passive relocation can be employed as described above. **BIO-7:** In the event that construction of new facilities and improvements involves removal of vegetation occurring between February 1 and September 1, CSUDH shall cause to be retained a qualified biologist to conduct a nesting bird/raptor survey of the project impact area prior to the initiation of construction. The survey shall be conducted no more than three days prior to the initiation of construction to minimize the potential for nesting following the survey and prior to construction. If the biologist detects any active nests within or adjacent to the project impact area (within 150 feet for nesting birds, within 500 feet for raptors), the area(s) supporting bird nests shall be flagged for protection with a buffer determined at the biologist's discretion based on the sensitivity of the species (minimum buffer of 500 feet for raptors). No activities shall occur within the buffer zone until the nests are no longer occupied as determined by the biologist.	

Table ES-1
Summary of Environmental Impacts and Mitigation Measures

Significance Criteria	Impact?	Mitigation Measures	Level of Significance After Mitigation
Would the project have a substantial adverse effect on any riparian habitat or other sensitive natural communities identified in local or regional plans, policies, regulations, or by the CDFW or USFWS?	Significant	**BIO-1:** The footprints of new facilities and improvements in areas containing the ephemeral Drainages 1, 2, 3, and 4 shall be designed to avoid any direct impacts. This includes avoidance of grading activities, construction, and/or material laydown. If avoidance is infeasible, mitigation measure BIO-2 will be implemented. **BIO-2:** The University shall obtain all necessary permits required by the regulatory agencies, including the Corps, CDFW, and RWQCB. The permits may include a nationwide permit under Section 404 of the Clean Water Act, a Streambed Alteration Agreement under Sections 1600–1602 of the Fish and Game Code, and the RWQCB Section 401 Water Quality Certification/Waste Discharge permits. ~~At the time, subsequent projects are proposed, the Campus shall undertake updated jurisdictional delineations to identify the extent of wetland/non-wetland waters. If it is determined that project construction has the potential to impact jurisdictional resources, the campus shall obtain all necessary permits required by the regulatory agencies, including the Corps, CDFW, and RWQCB. The permits may include a nationwide permit under section 404 of the Clean Water Act, a Streambed Alteration Agreement under sections 1600–1602 of the Fish and Game Code, and the RWQCB section 401 Water Quality Certification or Waste Discharge permits.~~	Less than significant

Table ES-1
Summary of Environmental Impacts and Mitigation Measures

Significance Criteria	Impact?	Mitigation Measures	Level of Significance After Mitigation
		BIO-3: Impacts associated with permanently disturbed areas within regulated waters will be mitigated in-kind at a minimum ratio of 1:1. The regulatory agencies (e.g., the Corps, RWQCB) may require final mitigation ratios greater or less than 1:1. The CSUDH, however, will cause implementation of in-kind mitigation at a 1:1 ratio, or the ratio required by the regulatory agencies, whichever is greater. Specific compensatory mitigation determined by each regulatory agency also may include providing adequate funding to a third-party organization, conservation bank, or in-lieu fee program for the in-kind creation or restoration. If mitigation is implemented offsite, mitigation lands shall be located within the Los Angeles River Watershed or vicinity. **BIO-4A:** If the Corps determines that the northern site is jurisdictional under Section 404 of the Clean Water Act, the Corps will initiate a ESA Section 7 consultation process with the USFWS for potential impacts to federally-listed vernal pool fairy shrimp species. The USFWS may require additional protocol-level vernal pool branchiopod surveys to confirm absence of federally-listed branchiopod species. CSUDH shall cause such surveys to be prepared as part of the project's subsequent Clean Water Act Section 404 permit application process with the Corps. As part of this consultation effort, CSUDH may cause the project's facilities and improvements to avoid impacts to the project's vernal	

Table ES-1
Summary of Environmental Impacts and Mitigation Measures

Significance Criteria	Impact?	Mitigation Measures	Level of Significance After Mitigation
		pool complex habitat area, along with a buffer zone. If avoidance is infeasible, CSUDH will cause further consultation to occur with the Corps and USFWS as part of the project's Clean Water Act Section 404 permit application process. As part of that consultation, CSUDH will cause to be implemented any feasible vernal pool mitigation required as part of that regulatory process, including off-setting impacts to the vernal pool complex habitat through mitigation banks, in-lieu fee sites, or permittee-responsible mitigation. ~~At the time, subsequent projects are proposed, protocol level vernal pool branchiopod surveys shall be prepared as part of the project's subsequent Clean Water Act Section 404 permit application process with the Corps. This application process will require consultation with USFWS with regard to potential impacts to any identified federally listed vernal pool fairy shrimp species.~~ ~~As part of this consultation effort, CSUDH may cause the project's facilities and improvements to avoid impacts to the project's vernal pool complex habitat area, along with a buffer zone. If avoidance is infeasible, CSUDH will cause further consultation to occur with the Corps and USFWS as part of the project's Clean Water Act Section 404 permit application process. As part of that consultation, CSUDH will cause to be implemented any feasible vernal pool mitigation required as part of that regulatory process, including off-setting impacts to the vernal pool complex habitat through mitigation banks, in-~~	

Table ES-1
Summary of Environmental Impacts and Mitigation Measures

Significance Criteria	Impact?	Mitigation Measures	Level of Significance After Mitigation
		~~lieu fee sites, or permittee-responsible mitigation. However, no further articulation of the vernal pool mitigation is required at this time because no federally-listed fairy shrimp were identified during focused dry-season presence/absence surveys, and the lack of suitable on-site conditions.~~ **BIO-4B:** If the Corps does not take jurisdiction over the northern site, CSUDH will consult with the USFWS through the ESA Section 10 process to determine the potential for impacts to federally-listed vernal pool fairy shrimp species. The USFWS may require additional protocol-level vernal pool branchiopod surveys to confirm absence of federally-listed branchiopod species. CSUDH shall cause such surveys to be prepared as part of the project's Section 10 consultation process. If federally-listed vernal pool fairy shrimp species are identified during protocol surveys, as part of this consultation effort, CSUDH may cause the project's facilities and improvements to avoid impacts to the project's vernal pool complex habitat area, along with a buffer zone. If avoidance is infeasible, CSUDH will obtain the necessary incidental take permit for impacts to the species/vernal pool complex. Mitigation will be identified in consultation with the USFWS and may include off-setting impacts to the vernal pool complex habitat through mitigation banks, in-lieu fee sites, or permittee-responsible mitigation.	

Table ES-1
Summary of Environmental Impacts and Mitigation Measures

Significance Criteria	Impact?	Mitigation Measures	Level of Significance After Mitigation
Would the project have a substantial adverse effect on state or federally-protected wetlands (including, but not limited to, marsh, vernal pool, coastal, etc.) through direct removal, filling, hydrological interruption, or other means?	Significant	Refer to **BIO-1** through **BIO-4B**.	Less than significant
Interfere substantially with the movement of any resident or migratory species of wildlife or with established native resident or migratory wildlife corridors?	Less than significant	None	N/A
Would the project conflict with the provisions of an adopted federal Habitat Conservation Plan, Natural Community Conservation Plan, or other approved local, regional, or state Habitat Conservation Plan?	Less than significant	None	N/A
Cultural Resources			
Would the proposed project cause a substantial adverse change in the significance of a historical resource pursuant to CEQA Guidelines Section 15064.5?	Less than significant	None	N/A
Would the proposed project cause a substantial adverse change in the significance of an archaeological	Significant	**CUL-1:** Retain a Qualified Archaeologist. The project shall retain a qualified archaeologist, defined as an archaeologist who meets the Secretary of the Interior's	Less than significant

Table ES-1
Summary of Environmental Impacts and Mitigation Measures

Significance Criteria	Impact?	Mitigation Measures	Level of Significance After Mitigation
resource pursuant to CEQA Guidelines Section 15064.5?		Standards for professional archaeology, to carry out all mitigation measures related to cultural resources. **CUL-2:** Survey of Undeveloped Areas Prior to Development. Prior to development or construction of new facilities in portions of the campus which have not previously been developed (particularly the eastern portions of campus which have not been surveyed previously and where the majority of the planned development is located), an archaeological pedestrian survey shall be conducted to identify potentially significant archaeological resources. Resources found to be not significant shall not require mitigation. If a potentially significant site would be impacted by ground-disturbing activities, either the site should be avoided, or a Phase II investigation would be required to evaluate the site for eligibility for listing in the CRHR. After testing, it may be determined that data recovery will be needed. **CUL-3:** Avoidance of Potentially Eligible Archaeological Sites through Project Design. The preferred mitigation is avoidance of any potentially eligible site through project design. If direct impact to a previously unknown archaeological site, by earth-moving activities cannot be avoided, a Phase II investigation would be necessary to determine significance in accordance with the following measure. **CUL-4:** Phase II (Evaluation) and Phase III (Data Recovery) Cultural Resources Investigations. Ground-disturbing impacts to any potentially eligible	

Table ES-1
Summary of Environmental Impacts and Mitigation Measures

Significance Criteria	Impact?	Mitigation Measures	Level of Significance After Mitigation
		archaeological site ~~should~~ shall be avoided to the extent feasible. If avoidance is not feasible, CSUDH shall ensure that the potentially impacted archaeological site is assessed for significance, as defined by Public Resources Code Section 21083.2 or CEQA Guidelines Section 15064.5(a), through implementation of Phase II investigations. ~~Should Phase II testing of any previously unknown archaeological site, exhaust the data potential of the site, impact from the proposed project would be reduced to a less than significant level. Resources found to be not significant shall not require mitigation.~~ If Phase II testing of any previously unknown archaeological site exhausts the data potential of the site or determines that the site is not significant, data recovery shall not be required. Impacts to a site found to be significant under CRHR Criterion 4 shall be mitigated through a Phase III data recovery program. For such a site, prior to any ground-disturbing activities, a detailed archaeological treatment plan shall be prepared and implemented by a qualified archaeologist. Data recovery investigations will be conducted in accordance with the archaeological treatment plan to ensure collection of sufficient information to address archaeological and historical research questions, and results will be presented in a technical report (or reports) describing field methods, materials collected, and conclusions. Additional testing and/or data recovery phases may involve additional excavation and/or more detailed recordation of resources or more comprehensive archival research. Any cultural	

Table ES-1
Summary of Environmental Impacts and Mitigation Measures

Significance Criteria	Impact?	Mitigation Measures	Level of Significance After Mitigation
		material collected as part of an assessment or data recovery effort should be curated at a qualified facility. Field notes and other pertinent materials should be curated along with the archaeological collection. If a resource is found to be significant under CRHR Criterion 1, 2, or 3, alternative mitigation measures may be necessary to reduce the level of impact to less than significant. These measures shall be developed by the qualified archaeologist, in consultation with CSUDH and other stakeholders, as appropriate. **CUL-5:** Construction Monitoring for Archaeological Resources. Prior to construction, a qualified archaeological monitor shall be retained to monitor ground-disturbing activities within portions of the campus that do not currently contain structures. These include areas that are currently paved, landscaped, or undeveloped. The duration and timing of the monitoring shall be determined by the qualified archaeologist in consultation with CSUDH. The archaeological monitor will work under the supervision of the qualified archaeologist. Archaeological monitors will hold at least a Bachelor's degree in Anthropology, Archaeology, History or related field and at least 1-year of construction monitoring experience. The qualified archaeologist will prepare an Archaeological Monitoring Plan for each project undertaken under the Master Plan, which will specify the appropriate frequency and procedure for reporting archaeological monitoring activities, including submittal of a final report to the CSUDH planning office.	

Table ES-1
Summary of Environmental Impacts and Mitigation Measures

Significance Criteria	Impact?	Mitigation Measures	Level of Significance After Mitigation
		CUL-6: Inadvertent Discoveries. If previously unknown buried cultural deposits are encountered during any phase of project construction, all construction work within 20 m (60 feet) of the deposit shall cease and the qualified archaeologist shall be consulted to assess the find. If the resources are determined to be Native American in origin, the project archaeologist will consult with CSUDH to continue Native American consultation procedures. As part of this process, it may be determined that a qualified Native American monitor will be required. If the discovery is determined to be not significant, work will be permitted to continue in the area. If a discovery is determined to be significant, a mitigation plan shall ~~should~~ be prepared and carried out in accordance with state guidelines. If the resource cannot be avoided, a data recovery plan should be developed to ensure collection of sufficient information to address archaeological and historical research questions, with results presented in a technical report describing field methods, materials collected, and conclusions. Any cultural material collected as part of an assessment or data recovery effort should be curated at a qualified facility. Field notes and other pertinent materials should be curated along with the archaeological collection.	
Would the proposed project directly or indirectly destroy or impact a unique paleontological resource or site or unique geologic feature?	Significant	**CUL-7:** A qualified project Principal Paleontologist meeting the Society of Vertebrate Paleontology (SVP) standards shall be identified prior to the commencement of all projects. The Principal Paleontologist shall be	Less than significant

Table ES-1
Summary of Environmental Impacts and Mitigation Measures

Significance Criteria	Impact?	Mitigation Measures	Level of Significance After Mitigation
		tasked with the production of the Paleontological Monitoring Plan, identifying and supervising qualified project paleontological monitors, and overseeing the salvage, identification and curation of paleontological resources.~~A qualified paleontologic monitor shall monitor all excavation in areas identified as likely to contain paleontological resources. These areas are defined as all areas within the proposed project site where planned excavation will exceed depths of five feet. The qualified paleontologic monitor shall retain the option to reduce monitoring if, in his or her professional opinion, sediments being monitored are previously disturbed. Monitoring may also be reduced if the potentially fossiliferous units, previously described, are not found to be present or, if present, are determined by qualified paleontologic personnel to have a low potential to contain fossil resources.~~ **CUL-8:**-The project Principal Paleontologist, as required by CUL-7 shall prepare a Paleontological Monitoring Plan (PMP) for each project initiated under the Master Plan. The PMP shall specify the appropriate frequency for paleontological monitoring and protocols for reporting monitoring activities, including submittal of a final report to the CSUDH planning office. The PMP shall also specify the appropriate buffer to implement in case of paleontological discovery, evaluation and salvage. Finally, the PMP shall provide guidance on the appropriate methods for evaluation and salvage, as well as guidance for resource identification, preparation and curation, including identifying a curatorial repository.~~The~~	

Table ES-1
Summary of Environmental Impacts and Mitigation Measures

Significance Criteria	Impact?	Mitigation Measures	Level of Significance After Mitigation
		~~paleontologic monitor shall be equipped to salvage fossils and samples of sediments as they are unearthed to avoid construction delays and shall be empowered to temporarily halt or divert equipment to allow for removal of abundant or large specimens.~~ **CUL-9:** The qualified project Principal Paleontologist shall identify and supervise a qualified paleontological monitor to implement monitoring as prescribed by the PMP. All areas designated as sensitive per the PMP shall be monitored under the direction of the Principal Paleontologist. The monitor shall be equipped to salvage fossils and samples of sediments as they are unearthed to avoid construction delays and shall be empowered to temporarily halt or divert equipment to allow for removal of abundant or large specimens. The monitor shall also retain the option to reduce monitoring if, in his or her professional opinion, sediments being monitored have previously been disturbed or if the potentially fossilferous units are not found to be present, or if present, are determined to be have a low potential to contain fossil resources. ~~Recovered paleontologic specimens shall be prepared to a point of identification and permanent preservation, including washing of sediments to recover small invertebrates and vertebrates.~~ **CUL-10:** Recovered paleontological specimens shall be prepared to a point of identification and permanent preservation, including washing of sediments to recover small invertebrates and vertebrates and curated into a professional, accredited museum repository with	

Table ES-1
Summary of Environmental Impacts and Mitigation Measures

Significance Criteria	Impact?	Mitigation Measures	Level of Significance After Mitigation
		permanent retrievable storage. Curation of recovered paleontological specimens shall be overseen by a Principal Paleontologist. **CUL-11:** A report of findings, with an appended itemized inventory of paleontological specimens, shall be prepared. The report and inventory, ~~when submitted to the County,~~ will signify completion of the program to mitigate impacts on the paleontological resources and be submitted with curated specimens as specified by the Paleontological Monitoring Plan required by CUL-8. Preparation of the inventory shall be overseen by a Principal Paleontologist~~.~~.	
Would the proposed project disturb any human remains, including those interred outside of dedicated cemeteries?	Significant	**CUL-12:** Discovery of Human Remains. If human remains are discovered, State of California Health & Safety Code Section 7050.5 stipulates that no further disturbance shall occur until the County Coroner has made a determination of origin and disposition pursuant to Public Resources Code Section 5097.98. The Los Angeles County Coroner must be notified of the find immediately. If the human remains are determined to be Native American ~~prehistoric~~, the Coroner will notify the Native American Heritage Commission, which will determine and notify a Most Likely Descendent (MLD). All treatment and disposition of Native American remains shall be compliant with Public Resources Code 5097.98, including completion of inspection by the~~a~~ MLD. The MLD will complete the inspection of the site within 48 hours of being granted access to the site ~~of notification~~	Less than significant

Table ES-1
Summary of Environmental Impacts and Mitigation Measures

Significance Criteria	Impact?	Mitigation Measures	Level of Significance After Mitigation
		and may recommend scientific removal and nondestructive analysis of human remains and items associated with Native American burials.	
Would the proposed project cause a substantial adverse change in the significance of a tribal cultural resource, defined in Public Resources Code Section 21074 as either a site, feature, place, cultural landscape that is geographically defined in terms of the size and scope of the landscape, sacred place, or object with cultural value to a California Native American tribe, and that is: a) listed or eligible for listing in the California Register of Historical Resources, or in a local register of historical resources as defined in Public Resources Code Section 5020.1(k); or b) a resource determined by the lead agency, in its discretion and supported by substantial evidence, to be significant pursuant to criteria set forth in subdivision (c) of Public Resources Code Section 5024.1. In applying the criteria set forth in Public Resources Code Section	Significant	Refer to **CUL-1** through **CUL-7**; **CUL-13:** Retain Qualified Native American Monitor. The Project Applicant shall be required to obtain the services of a single qualified Native American Monitor or two qualified Native American Monitors who would alternate in the provision the necessary monitoring. Under either approach, the Native American Monitor(s) shall be approved by the Tribal Representatives from the Gabrieleno Band of Mission Indians and Gabrieleno Tongva Indians of California. The Monitor must be present during all construction-related ground disturbance activities. Ground disturbance is defined as activities that include, but are not limited to, pavement removal, pot-holing or auguring, grubbing, weed abatement, boring, grading, excavation, and trenching, within the project area. The Native American Monitor(s) will complete monitoring logs daily. The logs will provide descriptions of the daily activities, including construction activities, locations, soil, and any cultural materials identified. The on-site monitoring shall end when the project site grading and excavation activities are completed, or when the Tribal Representatives and monitor have indicated that the site has a low potential for archeological resources.	Less than significant

Table ES-1
Summary of Environmental Impacts and Mitigation Measures

Significance Criteria	Impact?	Mitigation Measures	Level of Significance After Mitigation
5024.1(c), the lead agency shall consider the significance of the resource to a California Native American tribe.			
Greenhouse Gas Emissions			
Would the project generate GHG emissions, either directly or indirectly, that may have a significant impact on the environment?	Significant	**GHG-1:** All project-related development shall comply with applicable standards set forth in Chapter 6, Sustainability Guidelines, of the Guidelines for the 2018 Campus Master Plan. The CSUDH Department of Facilities Services, Office of Sustainability, shall be responsible for reviewing and confirming that all building plans, infrastructure, improvements, and other facets of the project's campus-related development are: (i) consistent with the Guidelines (either by implementing the applicable standards in the Guidelines "as is," or by implementing other strategies that are of equivalent or greater effectiveness, based on the Office of Sustainability's review of technical evidence prepared by a qualified sustainability/GHG emissions consultant), and (ii) do not impair the campus' ability to achieve the goals and objectives of CSU's 2014 Sustainability Policy. The Office of Sustainability shall complete its review of project-related development activities and approval shall be granted by the campus' Deputy Building Official prior to commencement of any project-related ground disturbance activities.	Significant and unavoidable

Table ES-1
Summary of Environmental Impacts and Mitigation Measures

Significance Criteria	Impact?	Mitigation Measures	Level of Significance After Mitigation
Would the project conflict with an applicable plan, policy or regulation adopted for the purpose of reducing the emissions of GHGs?	Less than significant	None	N/A
Noise			
Would the project result in the generation of a substantial temporary or permanent increase in ambient noise levels in the vicinity of the project in excess of standards established in the local general plan or noise ordinance, or applicable standards of other agencies?	Significant	**NOI-1:** Prior to initiation of campus construction, CSUDH shall approve a construction noise mitigation plan that shall be implemented for construction activities, and which will include an appropriate combination of the following: Temporary acoustic barriers to be installed around stationary construction noise sources within proximity of the residential homes north of Victoria Street and south of University Drive; Temporary acoustic barriers to be installed around stationary construction noise sources within proximity of the sensitive receptors within the campus; Construction equipment will be equipped with all feasible noise-reduction devices, and all construction equipment shall be maintained in accordance with manufacturer's specifications to assure that no noise results from improperly maintained equipment; Timing of construction activities will be coordinated to the extent feasible to minimize the extent of noisier construction activities, such as demolition, during time periods of more intensive academic instruction; and	Significant and unavoidable

Table ES-1
Summary of Environmental Impacts and Mitigation Measures

Significance Criteria	Impact?	Mitigation Measures	Level of Significance After Mitigation
		All construction projects pursuant to the proposed project shall be required to implement the above measures for control of construction noise.	
Would the project result in the generation of excessive ground-borne vibration or ground-borne noise levels?	No impact	None	N/A
For a project located within an airport land use plan or, where such a plan has not been adopted, within 2 miles of a public airport or public use airport, would the project expose people residing or working in the project area to excessive noise levels?	No impact	None	N/A
Population and Housing			
Would the project induce substantial unplanned population growth in an area, either directly (for example, by proposing new homes and businesses) or indirectly (for example, through extension of roads or other infrastructure)?	Less than significant	None	N/A
Would the project displace substantial numbers of existing people or housing, necessitating the	No Impacts	None	N/A

Table ES-1
Summary of Environmental Impacts and Mitigation Measures

Significance Criteria	Impact?	Mitigation Measures	Level of Significance After Mitigation
construction of replacement housing elsewhere?			
Public Services and Recreation			
Would the proposed project result in substantial adverse physical impacts associated with the provision of new or physically altered governmental facilities, need for new or physically altered governmental facilities, the construction of which could cause significant environmental impacts, in order to maintain acceptable service ratios, response times or other performance objectives for any of the public services: • Fire protection; • Police Protection; • Schools; • Parks; or • Other public facilities?	Less than significant	None	N/A
Would the proposed project increase the use of existing neighborhood and regional parks or other recreational facilities such that substantial physical deterioration of the facility would occur or be accelerated?	Less than significant	None	N/A

Table ES-1
Summary of Environmental Impacts and Mitigation Measures

Significance Criteria	Impact?	Mitigation Measures	Level of Significance After Mitigation
Would the proposed project include recreational facilities or require the construction or expansion of recreational facilities which might have an adverse physical effect on the environment?	Less than significant	None	N/A
Traffic and Circulation			
Would the proposed project conflict with a program, plan, ordinance or policy addressing the circulation system, including transit, roadway, bicycle and pedestrian facilities?	Significant	Mitigation for traffic includes measures that have been designed to reduce impacts associated with the performance of the study area intersections and freeway segments that would result in the Interim Year (2025) Plus Project Conditions as well as within the Buildout Year (2035) Plus Project Conditions. The complete measures can be found in Section 3.9 Traffic and Circulation under the Mitigation Measures subsection. For the Interim Year (2025), 10 mitigation measures have been identified to reduce the impacts at 10 study area intersections that would be impacted by the project. Each of these measures includes the CSU funding responsibility for the future installation of the improvement. Fourteen measures have been identified to mitigate for impacts for the study area freeway segments; these include the CSU supporting Caltrans in its efforts to obtain funding from the Legislature for the costs to implement future improvements, including the addition of general purpose lanes to the mainline of freeways impacted.	Significant and unavoidable

Table ES-1
Summary of Environmental Impacts and Mitigation Measures

Significance Criteria	Impact?	Mitigation Measures	Level of Significance After Mitigation
		For the Buildout Year (2035), 14 mitigation measures have been identified to reduce impacts at 14 intersections within the study area. Each of these measures includes the CSU funding responsibility for the future installation of the improvement. 6 measures have been identified to reduce impacts to the 6 study area freeway segments significantly impacted by the project. These measures include the CSU supporting Caltrans in its efforts to obtain funding from the Legislature for the costs to implement future improvements that include the addition of general purpose lanes to the mainline of freeways impacted. Mitigation measures have also been identified for StubHub Stadium Sunday Pre-Event and Post-Event impacts on traffic and circulation with the addition of the 3,000 seats. These strategies would implement a traffic management plan to improve the performance of intersections within the study area during these times. Details of these strategies can also be found in Section 3.9 under the subheading Mitigation Measures.	
Would the proposed project substantially increase hazards due to a geometric design feature (e.g., sharp curves or dangerous intersections) or incompatible uses (e.g., farm equipment)?	Less than significant	None	N/A

Table ES-1
Summary of Environmental Impacts and Mitigation Measures

Significance Criteria	Impact?	Mitigation Measures	Level of Significance After Mitigation
Would the proposed project result in inadequate emergency access?	Less than significant	None	N/A
Utilities and Service Systems			
Would the proposed project require or result in the relocation or construction of new water or expanded water, wastewater treatment, or storm water drainage, electric power, natural gas, or telecommunications facilities, the construction or relocation of which could cause significant environmental effects?	Less than significant	None	N/A
Would the proposed project have sufficient water supplies available to serve the project and reasonably foreseeable future development during normal, dry and multiple dry years?	Less than Significant Impact~~Significant~~	~~UWMPs are required to be updated every five years, and therefore, the CWS UWMP would be subject to revision in 2020. As part of its next round of water supply planning, the CWS would incorporate growth projections for various jurisdictions within its service area, including the CSUDH campus. It is anticipated that any needs for additional supplies based on adoption of the proposed project would be addressed and accounted for in the next and subsequent updates to the UWMP.~~ ~~Also, CSUDH will continue to build on sustainable programs already in place and set forth a series of practical ways the campus can implement water conservation designs, features, and programs in campus development, operations, and educational programs. Future development projects on campus would be~~	~~Significant and unavoidable~~ N/A

Table ES-1
Summary of Environmental Impacts and Mitigation Measures

Significance Criteria	Impact?	Mitigation Measures	Level of Significance After Mitigation
		~~required to assure adequate measures are proposed to meet all water conservation objectives incorporated into the Guidelines.~~ ~~Currently, adequate water supply exists from CWS in normal years through 2035. However, due to future uncertainties regarding water supply in dry years through 2035, the proposed project would result in a significant impact.~~	
Would the proposed project result in a determination by the waste water treatment provider, which serves or may serve the project that it has adequate capacity to serve the project's projected demand in addition to the provider's existing commitments?	Less than significant	None	N/A
Would the project generate solid waste in excess of state or local standards, or in excess of the capacity of local infrastructure, or otherwise impair the attainment of solid waste reduction goals?	Less than significant	None	N/A
Would the project comply with federal, state, and local management and reduction statutes and regulations related to solid waste?	Less than significant	None	N/A

Table ES-1
Summary of Environmental Impacts and Mitigation Measures

Significance Criteria	Impact?	Mitigation Measures	Level of Significance After Mitigation
Would the project result in wasteful, inefficient, or unnecessary consumption of energy?	Less than significant	None	N/A
Would the project conflict with existing energy standards and regulations?	Less than significant	None	N/A
Would the project place a significant demand on local and regional energy supplies or require a substantial amount of additional capacity?	Less than significant	None	N/A

Areas of Controversy

CEQA Guidelines Section 15123(b)(2) requires that areas of controversy known to the Lead Agency be stated in the EIR summary. To determine the number, scope, and extent of the environmental topics to be addressed in this EIR, CSUDH prepared and distributed the NOP and IS to public agencies and all other interested parties, and the NOP solicited agency and public comment on the proposed scope of the EIR. The NOP and letters in response to the NOP are included in **Appendix ~~1.0~~ A.1** of this EIR. Comments received during the NOP/IS scoping process varied but, in general, areas of concern include the following (the EIR section that addresses the issue raised is provided in parentheses):

- Aesthetics (**Section 3.1**)
- Air Quality (**Section 3.2**)
- Biological Resources (**Section 3.3**)
- Cultural Resources (**Section 3.4**)
- Greenhouse Gas Emissions (**Section 3.5**)
- Noise (**Section 3.6**)
- Population and Housing (**Section 3.7**)
- Public Services and Recreation (**Section 3.8**)
- Traffic and Circulation (**Section 3.9**)
- Utilities and Service Systems (**Section 3.10**)

Concerns also were expressed pertaining to the evaluation of alternatives to the proposed project, and the need to avoid or minimize identified significant environmental effects.

Issues to Be Resolved

CEQA Guidelines Section 15123(b)(3) requires that this Executive Summary identify the issues to be resolved in this EIR. In this case, the decision-making body (the CSU Board of Trustees) must decide whether or how to avoid, minimize, or mitigate the identified significant environmental effects of the proposed project.

Summary of Project Alternatives

CEQA Guidelines Section 15126.6 identifies the parameters within which consideration and discussion of alternatives to the proposed project should occur. Alternatives are to include those that are reasonably feasible and would attain most of the basic objectives of the project. Alternatives also should be capable of avoiding or substantially lessening any significant effects of the project.

Section 5.0, Alternatives, of the EIR contains a detailed analysis of alternatives to the proposed project. As presented therein, this EIR evaluates a total of 8 alternatives to the proposed project;

4 alternatives are studied in detail, and 4 are considered but rejected consistent with CEQA. Specifically, the EIR fully evaluates the following 4 alternatives to the proposed project:

1. No Project Alternative

Consistent with CEQA Guidelines Section 15126.6(e)(3)(A), the No Project Alternative represents the continued implementation of the adopted Campus Master Plan (2009 Master Plan).

Development of the campus would proceed in accordance with the 2009 Master Plan. Campus improvements pursuant to the 2009 Master Plan would still occur within campus boundaries. These include both the near-term and long-term projects. The long-term projects identified in the 2009 Master Plan are those defined conceptually to accommodate student growth, with enrollment level up to 20,000 FTES. These long-term projects include academic/administration facilities; campus life and student facilities; access, circulation, and parking projects; campus infrastructure; and athletic fields.

As compared to the proposed project, the No Project Alternative would have 388 less beds for student housing (for a total of 600 student beds) and 350 dwelling units would be built for faculty housing.

2. Reduced Project Alternative

The long-term projects identified in the 2009 Master Plan are those defined conceptually to accommodate student growth, with enrollment level up to 20,000 FTES. These long-term projects include academic/administration facilities; campus life and student facilities; access, circulation, and parking projects; campus infrastructure; and athletic fields.

As compared to the proposed project, the No Project Alternative would have 388 less beds for student housing (for a total of 600 student beds) and 350 dwelling units would be built for faculty housing.

3. Increased Student Housing Alternative

The development parameters of the proposed project and Increased Student Housing Alternative are identical, except for the latter's increase in student housing by 1,040 beds and its 180-unit reduction of ~~market rate housing~~campus apartment housing. Under this alternative, the location of the buildings, building size, and building footprint would remain identical with the ~~market rate~~campus apartment building proposed under the project. Similarly, the proposed construction schedule for the student housing would remain the same with what was proposed under the project, with a buildout year of 2035.

4. Increased Student Housing Alternative with ~~Market Rate~~Campus Apartment Housing Relocation Alternative

The Increased Student Housing and ~~Market Rate~~Campus Apartment Housing Relocation Alternative (hereafter Relocation Alternative) includes all the same elements as the Increased Student Housing Alternative, with the addition of the relocation of 100 ~~market rate~~campus apartment units to a surface parking lot on the campus located at the corner of Birchknoll

Drive and Pacific View Drive within this Alternative. Compared to the proposed project, this alternative would increase the total number of student beds by 1,040, and the total number of ~~market rate~~campus apartment– dwelling units would reduce by 180 units. Similarly, the proposed construction schedule for the student housing would remain the same with what was proposed under the proposed project, with a buildout year of 2035.

Letters of Comment and Responses

The following letters of comments were received from agencies, organizations, and individuals during the public review period and its extension (February 11, 2019 to April 15, 2019). A copy of each comment letter received is included below, with comments bracketed based on the response to comment numbering. The responses to those comments follow in the tables below. Some of the comments did not address the adequacy of the environmental document; however, staff has attempted to provide appropriate responses to all comments as a courtesy to the commenter.

Letter Response Code	Author	Date Received
GS-#	Gil Smith – Member of the public	March 10, 2019
SS-#	Shirley Smith – Member of the public	March 10, 2019
DTSC-#	Department of Toxic Substances Control – Site Mitigation and Restoration Program Chatsworth Office	March 11, 2019
CT-#	Caltrans District 7 – IGR/CEQA Branch Chief	April 15, 2019
CAR-#	City of Carson – Acting City Manager	April 15, 2019
OPR-#	Office of Planning and Research State Clearinghouse - Director	April 16, 2019

Comment Letters

Gil and Shirley Smith

From: **CSUDH Master Plan 2018** masterplan2018@csudh.edu
Subject: FW: Comments from March 7 Town Hall Meeting
Date: April 16, 2019 at 4:40 PM
To: Jay Bond jbond@csudh.edu

Jay –

Somehow I missed this response from Shirley.

I will call you now.

Jean

From: Smith, Shirley <ssmith@labiomed.org>
Sent: Sunday, March 10, 2019 4:04 PM
To: CSUDH Master Plan 2018 <masterplan2018@csudh.edu>
Subject: Comments from March 7 Town Hall Meeting

From Gil Smith:

GS-1 Project coordination team needs to concentrate on developing mutual benefits for local residents, city of Carson, AEG and the university, with special attention to:
Project housing density and compatibility with nearby residential areas,
Traffic congestion and air quality issues,
Potential conflicts with current event staging as well as future land development at Dignity Health,

GS-2 Improving ongoing plan review and overall working relationship with the City of Carson and LA County to minimize master plan communication problems,

GS-3 Emphasizing key elements of a successful campus/community relationship: planning, zoning, scheduling, cooperation efforts to identify community impacts.

GS-4 Acknowledging historical experience with large apartment complexes moving into single-family neighborhoods and the accompanying fears of overcrowding, street parking, street congestion, public service use,

GS-5 Assessing the possibility that well-thought out new developments sometimes degenerate into poorly managed apartments.

GS-6 Recognizing that communication breakdowns often lead to poor acceptance and lack of trust. If residents perceive more negatives than positives, it leads to fear and conflict.

From Shirley Smith

SS-1 In recent years, local residents have experienced increased traffic on University Drive and have reason to fear more, noise, congestion and air quality problems.

SS-2 They have seen the effects of increased campus population and are concerned that even more cars mean more traffic accidents, fender benders, vehicle thefts and other traffic problems in the neighborhood.

SS-3 Currently, cars race up and down University Drive creating risks to drivers and pedestrians. A signal is needed at Toro Drive.

SS-4 With development, wider impact will be felt on surrounding neighborhoods and adjacent properties. For example, increased population means more shoppers and cars at University/Avalon shopping center. Parking is already extremely limited. Residents are also fearful that too much development is proposed for this part of

SS-5 town. Projects under development such as the proposed Kimmel Tennis Academy at Victoria Park and the still-on-the-drawing –board hotel proposal for Dignity Health also will change the character of the neighborhood and introduce unforeseen problems.

SS-6 Residents in north Carson are mainly older, retired people, most of whom rely on life saving services and fear increased demand for Fire and Police will lead to increased emergency vehicles on the road, more siren noise, longer waits for service.

Other concerns:

SS-7 We've already learned that heavy truck traffic on Central Ave is due to increase as port of Los Angeles cargo shipments increase.

SS-8 Water runoff during heavy storm activity is currently compromised, drains are overloaded, backing up at curbs and creating dangerous driving conditions on streets.

SS-9 Electric grids for So Cal Edison are frequently overloaded. Residents fear that the number of brown outs in our neighborhoods will increase with proposed development.

SS-10 In years past, there was an effort underway to save an endangered species of frog where the geranium fields stand. Is the habitat of an endangered species at risk?

SS-11 There is a stronger need to work with AEG and Dignity Health as new traffic on top of stadium traffic will lead to severe congestion on Central Ave and University Drive. Also, to coordinate with them more signage to mitigate congestion during peak stadium event times, placement starting at 91 Fwy and continuing on Central Ave and University Dr. Installing warning signs of expected congestion near stadium at least two miles ahead in all directions would be a useful approach.

Warmest Regards,

Shirley

Department of Toxic Substances Control

Department of Toxic Substances Control

Jared Blumenfeld
Secretary for
Environmental Protection

Meredith Williams, Ph.D.
Acting Director
9211 Oakdale Avenue
Chatsworth, California 91311

Gavin Newsom
Governor

March 11, 2019

Jay Bond
University Planning Consultant
California State University, Dominguez Hills
1000 East Victoria Street
Carson, CA 90747

NOTICE OF PREPARATION OF A DRAFT ENVIRONMENTAL IMPACT REPORT FOR THE 2018 CAMPUS MASTER PLAN (PROJECT)

Dear Mr. Bond:

DTSC-1 The Department of Toxic Substances Control (DTSC) has received the document for the above-mentioned project.

Based on the review of the document, the DTSC comments are as follows:

DTSC- 2 1) The document needs to identify and determine whether current or historic uses at the project site have resulted in any release of hazardous wastes/substances at the project area.

DTSC- 3 2) The document needs to identify any known or potentially contaminated site within the proposed project area. For all identified sites, the document needs to evaluate whether conditions at the site pose a threat to human health or the environment.

DTSC-4 3) The document should identify the mechanism to initiate any required investigation and/or remediation for any site that may require remediation, and which government agency will provide appropriate regulatory oversight.

DTSC-5 4) If during construction of the project, soil contamination is suspected, construction in the area should stop and appropriate health and safety procedures should be implemented. If it is determined that contaminated soil exists, the document should identify how any required investigation or remediation will be conducted, and which government agency will provide appropriate regulatory oversight.

DTSC-6 { DTSC provides guidance for Preliminary Endangerment Assessment (PEA) preparation, and cleanup oversight through the Voluntary Cleanup Program (VCP). For additional information on the VCP, please visit DTSC's web site at www.dtsc.ca.gov. If you would like to meet and discuss this matter further, please contact me at (818) 717-6555 or Pete.Cooke@dtsc.ca.gov.

Sincerely,

Pete Cooke
Site Mitigation and Restoration Program - Chatsworth Office

cc: Governor's Office of Planning and Research
State Clearinghouse
P.O. Box 3044
Sacramento, California 95812-3044

Dave Kereazis
Hazardous Waste Management Program, Permitting Division
CEQA Tracking
Department of Toxic Substances Control
P.O. Box 806
Sacramento, California 95812-0806

Caltrans District 7

DEPARTMENT OF TRANSPORTATION
DISTRICT 7 – Office of Regional Planning
100 S. MAIN STREET, MS 16
LOS ANGELES, CA 90012
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FAX (213) 897-1337
www.dot.ca.gov

Making Conservation a California Way of Life.

April 15, 2019

Mr. Jay Bond
California State University, Dominguez Hills
1000 E. Victoria Street, WH B470
Carson, CA 90747

RE: CSU Dominguez Hills 2018 Campus Master Plan
Draft Environmental Impact Report (DEIR)
SCH#2017081035
GTS #07-LA-2017-02255
Vic. LA/ 91/ PM R8.216

Dear Mr. Bond:

Thank you for including the California Department of Transportation (Caltrans) in the review process for the above-referenced project. The proposed project (Project) is the adoption and implementation of CSUDH's 2018 Campus Master Plan.

CT-1 The Project consists of three major components (in planned order of completion): 1) An additional 3,000 seats for StubHub Center to be completed by 2018 for use for Sunday afternoon events, 2) a University Village consisting of business park, retail, and market-rate apartment uses to be partially completed by 2025, and 3) upgrading the academic buildings to accommodate up to 20,000 full-time equivalent students and build-out of the University Village to be completed by 2035.

CT-2 After reviewing the February 2019 DEIR, Caltrans has the following comments: The nearest State facility is SR-91, I-110, and I-405. Based on the project's Traffic Impact Analysis, with incremental effect of the Project, combined with the effects of the other past, present and reasonably foreseeable future projects within the vicinity of this project, potential cumulative impact may occur. Caltrans acknowledges that "the University will make reasonable efforts to seek [the jurisdictions of other entities'] cooperation in implementing the mitigation measures in a timely manner (TIS, Page 391)"

CT-3 Regarding use of Congestion Management Program (CMP) in evaluating State facility: Caltrans is responsible for obtaining measures that will off-set Project vehicle trip generation that worsens Caltrans facilities and hence, the Project's Traffic Impact Study does not adhere to the CMP guide of 150 or more vehicle trips added before freeway analysis is needed. MTA's Congestion Management Program, in acknowledging the Caltrans' role, stipulates that Caltrans must be consulted to identify specific locations to be analyzed on the State Highway System (2010 CMP, Page D-2).

CT-4 In Project's DEIR Mitigation Measures section, significant Traffic and Circulation Impacts were identified on freeway segments and indicated that they are under jurisdiction and control of Caltrans; therefore, the University shall support Caltrans in its efforts to obtain funding from the Legislature for the costs to implement the improvement (2018 EIR, 3.9 Traffic and Circulation).

CT-5 Caltrans acknowledges and looks forward in cooperation with the University to come up with improvements in the Project area. Caltrans may accept fair share funding contribution towards future improvement of its facilities as long as we can show that such improvements are reasonable expected to be implemented in a reasonable time frame. Please contact Caltrans to explore and develop these reasonable measures and plan.

CT-6 Caltrans continues to strive to improve its standards and processes to provide flexibility while maintaining the safety and integrity of the State's transportation system. It is our goal to implement strategies that are in keeping with our mission statement, which is to "provide a safe, sustainable, integrated, and efficient transportation system to enhance California's economy and livability."

CT-7 Caltrans encourage the University to integrate transportation and land use in a way that reduces Vehicle Miles Traveled (VMT) and Greenhouse Gas (GHG) emissions by facilitating the provision of more proximate goods and services to shorten trip lengths and achieve a high level of non-motorized travel and transit use.

Such as evaluating the potential of Transportation Demand Management (TDM) strategies and Intelligent Transportation System (ITS) applications in order to better manage the transportation network, as well as transit service and bicycle or pedestrian connectivity improvements. Considering vehicle demand-reducing strategies, including incentives for commuters to use transit, park-and-ride lots, discounts on monthly bus and rail passes, shuttle buses, vanpools, etc. To the extent that more of the population shifts to transit for some of their inter-regional trips, future cumulative traffic impacts to freeways may be satisfactorily mitigated.

CT-8 Good geometric and traffic engineering design to accommodate bicyclists and pedestrians are critical at every on and off ramp and freeway terminus intersection with local streets. Caltrans will work with the University to look for every opportunity to develop projects that improve safety and connectivity for pedestrians and bicyclists. Opportunities for improvements may exist on State facilities such as: freeway termini, on/off-ramp intersections, overcrossings, under crossings, tunnels, bridges, on both conventional state highways and freeways.

CT-9 With regard to public transit, Caltrans recommends planning for gradual continual improvement of transit stops, bus bays, or other facilities, to accommodate traffic flow, especially on streets that are State Route locations or are near freeway intersections.

CT-10 In addition, Caltrans supports the implementation of complete streets and pedestrian safety measures such as road diets and other traffic calming measures. Please note the Federal Highway Administration (FHW A) recognize the road diet treatment as a proven safety countermeasure, and the cost of a road diet can be significantly reduced if implemented in tandem with routine street resurfacing.

CT- 11 For Project construction, Caltrans has the following recommendations:

- Haul trucks, construction vehicles, oversized vehicles and/or large size truck trips should be limited to off peak commute periods to lessen traffic impacts to the truck routing areas.
- Construction/hauling vehicles transporting materials (dirt, debris, trash, etc.) on freeway/ highway need to be secured from littering.

CT- 11

- Consider scheduling works on the weekends and after hours to help relieve traffic congestion during work day peak hours and have workers/employees carpooling to reduce trips during peak commuting hours.

CT- 12 As a reminder, Caltrans standards for roadway closures and detours are no closure between 5 AM and 10 PM. In additional, Store water run-off is a sensitive issue for Los Angeles and Ventura counties. Please be mindful of your need to discharge clean run-off water and it is not permitted to discharge onto State highway facilities.

CT- 13 Any work to be performed within the State Right-of-way will need an Encroachment Permit and any transportation of heavy construction equipment and/or materials, which requires the use of oversized-transport vehicles on State highways, will require a Caltrans transportation permit. For information on the Permit process, please contact Caltrans District 7 Office of Permit at (213) 897-3631.

If you have any questions or concerns, please contact project coordinator, Frances Lee at (213) 897-0673 or electronically at frances.lee@dot.ca.gov and refer to GTS#07-LA-2017-02255.

Sincerely,

MIYA EDMONSON
IGR/CEQA Branch Chief

cc: Scott Morgan, State Clearinghouse

City of Carson

City of Carson

Jay W. Bond
University Planning Consultant
1000 East Victoria Street
WH B470
Carson, CA 90747
Email: masterplan2018@csudh.edu

Re: City of Carson's Comments on Draft Environmental Impact Report for Cal State University 2018 Campus Master Plan – State Clearinghouse No. 2017081035

Dear Mr. Bond:

CAR-1

This letter contains the comments of City of Carson (City) on the Draft Environmental Impact Report (DEIR) for the California State University – Dominguez Hills (CSUDH) Master Plan (proposed project). Generally, the City supports the proposed project. However, our review of the DEIR causes the City a variety of concerns regarding the disclosure of the severity of the potential impacts, as well as the proposed mitigation (or lack thereof) to City infrastructure and services directly impacted by project implementation, particularly those arising from the University Village portion of the proposed project, for which the City is the proper permitting body. The analysis regarding impacts related to the addition of seats in StubHub Center ignores previous mitigation measures that were agreed to previously.

The disclosure of the analysis in portions of the DEIR leaves much to be desired. The traffic analysis is unsupported or erroneously leaves out critical information required to discern the approach to the methodology underlying the analysis. There are overarching assumptions and analyses in the Public Services and Alternatives analysis that are not supportable. There is analysis missing from the Air Quality, Cultural Resources and Public Service sections.

As described further in this comment letter, the City has identified potentially critical procedural flaws as well as analysis flaws or missing information that doesn't allow us to fully discern impacts that will occur to our City infrastructure, services and amenities. In addition,

CAR-1 cont. there are numerous additional serious comments on the content and presentation of the DEIR, which may not result in fatal flaws, but nonetheless should be addressed. We are requesting CSUDH review our comments and address them in a recirculated revised DEIR, that allows the City to fully vet the potential impacts on our City.

CAR-2 I was assisted by various persons in preparing these comments. Differences in the formatting of comments are the result of the process by which the DEIR was reviewed and are not intended to have any substantive significance.

The City's Role As Permitting Authority

CAR-3 In the section of the DEIR commencing on page 2.0-31, "DEIR Intended Uses/Project Actions and Approvals," the City is identified as a responsible agency which will approve "improvements within City rights-of-way and approve "new connections to local sewer system and/or increase quantity, as needed." In fact, the City's role will be much greater as the City is the approving body for the University Village portion of the Master Plan because the purpose of that part of the Master Plan is not exclusively educational. It consists of market rate housing open to the general public, retail development open to the general public, and a business park not exclusively educational in purpose, all of which will generate revenue for the University, precisely because they are not solely related to the educational purpose of the University. The City's land use authority rests in its exercise of police powers under Cal. Const. art. XI, § 7. The exercise of these police powers over land use and permitting issues assures that the City "may exercise the maximum degree of control over local zoning matters." (Govt. Code § 65800; *DeVita v County of Napa* (1995) 9 Cal.4th 763, 782.) The University Village portion of the Master Plan is development that is not being proposed exclusively for educational purposes. Therefore, the City of Carson which will have responsibility for issuing the discretionary approvals and necessary permits for such development, subject to such conditions, mitigations, and fees as the City may decide to impose on such development.

CAR-4 When CSUDH is engaged in revenue producing activities not *solely for educational purposes,* the exemption of state entities from local regulation no longer applies. (*Board of Trustees v. City of Los* Angeles (1975) 49 Cal.App.3d 45, 50.) For implementation of the University Village (including the adopting of landscape, sustainability and design guidelines for the same), which certainly will be undertaken by private developers, the City is responsible for issuing the discretionary approvals and necessary permits for such development(s). The City's land use authority yields *only* with respect to development that is *solely* related to the educational purpose of University.

In *City and County of San Francisco v. Regents of University of California* (2017) 11 Cal.App.5th 1107, 1114-1116,[1] the court of appeal ultimately concluded the Regents were not required to pay city parking taxes. However, the court analyzed the issue in the context of the question whether the activity at issue was governmental or proprietary. And while the court of appeal concluded providing parking for students and faculty in support of educational activities was not a proprietary activity, the court said: "we agree with San Francisco that *an activity is not necessarily governmental just because it generates revenue used to support a state entity's purpose*." (*Id.* at 1116 [emphasis added].) The California Supreme Court granted a petition for review in *San Francisco v. Regents* and oral argument in that case took place on April 3, 2019. An opinion should be issued any day now.

CAR-5

More to the point, in *City of Marina v. Board of Trustees of the California State University* (2006) 39 Cal.4th 341, 355 n. 10, the California Supreme Court stated:

> The Court of Appeal left undisturbed the superior court's additional conclusion that the Trustees had improperly failed to determine whether certain commercial developments contemplated in the Master Plan for CSUMB, including a retail mall, were consistent with FORA's Reuse Plan. *CSUMB is exempt from land use regulation by FORA (including regulation under the Reuse Plan) only with respect to property "that is used for educational or research purposes."* (Gov.Code, § 67678, subd. (f).) Profits from the developments in question are expected to generate as much as 30 percent of CSUMB's budget.

(City of Marina v. Board of Trustees of the California State University, supra, 39 Cal.4th at 355 n. 10 [emphasis. added].)

As a result, development of a "University Village," as contemplated within the Master Plan, even if on state land, falls squarely and solely within Carson's land use and permitting authority to the extent the use is revenue raising rather than solely educational. The City alone must oversee proposed revenue-generating and on-campus projects open to the general public, such as the non-student housing, business park, and retail operations in the Master Plan. Among the mitigation measures that should be called for in the DEIR for University Village is payment of the City's newly adopted Interim Development Impact Fees (IDIF) and Citywide Community

CAR-6

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[1] The California Supreme Court granted a petition for review in *San Francisco v. Regents* and oral argument in that case took place on April 3, 2019. An opinion should be issued any day now.

Facilities District (CFD). on the same basis as they would be applied to any other real estate developer.

StubHub Center

CAR-7

The DEIR analyzes noise and traffic impacts of expanding StubHub Center by 3,000 seats for Chargers NFL games. In fact, there is much more than needs to be analyzed. The 2001 Final Environmental Impact Report for StubHub Center (2001 FEIR) was narrowly specific as to the type of uses contemplated for the stadium. Since that time, however, there has been a steady march of changes to the uses at the stadium, including concerts, large events on weekdays. None of these changes have ever been evaluated as required by CEQA, but they form part of the baseline for any further expansion of use of the facility.

Since that time, the actual use of the facility has expanded and changed, with no analysis of changes in the impacts and required mitigation measures to address those impacts. With the proposed expansion to 30,000 seats for NFL games, the time has come to revisit all of the impacts from StubHub, for all uses, relative to the 2001 FEIR, to provide an accurate baseline for analysis of the use of 30,000 seats for NFL games.

CAR-8

The 2001 FEIR never contemplated NFL uses at any seating level – let alone the demand frequency, additional activities and staffing that has become the actual use of the stadium. The 2001 FEIR did not analyze the impacts of having frequent Sunday games on thousands of residents who live immediately adjacent to the stadium. It also did not analyze the impacts of the new project's "fan experience" or tailgating on Sundays at the venue and on the campus proper. We are particularly concerned for the large residential neighborhoods, including the mobile home parks, located immediately adjacent to the venue.

There has been no public assessment as required by CEQA as to whether the NFL events' heightened use of public safety resources would leave sufficient public safety for the surrounding community of Carson. The 3,000 seat expansion requires this analysis be done now. For example, There has been no analysis of whether an NFL event would leave sufficient law enforcement available in the community to handle simultaneous incidents at other locations within the City. This could include those related to fans going to a restaurant or other location in Carson and causing an incident, or public safety resources being tied up at the stadium, which would leave the remainder of the community underserved or unprotected.

CAR-9

Further, the events of September 11 and the attack on Manchester Arena on May 22, 2017 during an Ariana Grande concert demonstrate that security conditions and needs have dramatically changed since the 2001 FEIR analyzed public safety and security issues some 18

CAR-9 cont.

years ago. The DEIR does not consider whether a terrorist or major incident during an NFL event would leave sufficient public safety resources for the surrounding community of Carson. As terrorists or criminals grow more sophisticated, they have shown a willingness to create diversionary incidents at in order to divert public safety resources away from the true target.

CAR-10

All of the potential impacts of the expanded use of the Dignity Health Center must be analyzed, including an analysis of whether the stadium has complied with the mitigation measures required under the 2001 FEIR and the effectiveness of those mitigation measures, including those related to public safety. Such an analysis is necessary to determine what the real baseline for additional impact really is. Without an accurate baseline, any analysis of additional impacts is fatally flawed.

Unreadable Graphics

CAR-11

Graphics in a draft environmental impact report are key to the public's understanding of a project and its impacts. Many of the graphics in the Project Description section and elsewhere in the DEIR include text that is unreadable. The Master Plan maps, Figures 2.0-1 and 2.0-1, on pages 2.0-3 and 2.0-5 are keyed to lists of facilities on the following pages, but those lists are useless because the numbers tied to the facility lists are unreadable, even when the maps are enlarged on a computer screen. Similar problems exist with Figures 2.0-7, 2.0-8 and 2.0-9, 3.8-3, 3.8-4, 3.9-3, 3.9-5, 3.9-7, 3.9-10, 3.9-19, 3.9-20, 3.9-21, 3.9-23, 5.0-2, 5.0-3. A graphic showing land uses surrounding the campus, which appears repeatedly as Figures 3.1-2, 3.4-2, 3.6-2, 3.7-2, 3.8-2, 3.9-2, 3.10-2, suffers from the same problem. Other figures, such as Figures 2.0-5, 2.0-6, 2.0-10 and 2.0-11 are only marginally better. The DEIR should contain readable graphics, particularly the Master Plan maps.

Unsupported and Missing Traffic Analysis

CAR-12

The DEIR was released for public review on February 11, 2019. Critical technical appendices were not included with the original release of the DEIR, which prohibited a comprehensive understanding of how some of the proposed project impacts were determined in the impact conclusions. On February 26, 2019, the City requested an extension of the public review period for the DEIR due to these missing technical appendices. In response to the City's request, CSUDH granted an extension of the public comment period on the DEIR to April 15, 2019. We have reviewed the additional information provided by CSUDH and note again that the technical appendices are incomplete, lacking crucial information to allow the City to adequately review the impacts as stated in the DEIR. Specifically, the Traffic Impact Assessment is still missing Volume Development Worksheets and Project Trip Distribution & Assignment figures

or tables. Despite our request for that information for public review and comment, this information was yet to be provided.

CAR-13 As a result of the missing data, the City again requested that these elements be released publically and the deadline for public comments be extended. As described above, this information is critical to understanding the methodology presented in the Traffic analysis. Without this critical information, the impacts associated with the proposed project on City infrastructure and City residents in the surrounding community cannot be fully understood and analyzed. Again, we note the CSUDH has not adequately responded to this request, rather the response provided by the University Planning Consultant, Jay Bond on March 19, 2019, does not accurately represent industry standards when providing traffic projections for the proposed project. Specific comments regarding the Traffic Impact Assessment are listed below. The lack of a complete presentation of the underlying analyses prevents the City from adequately reviewing potential traffic impacts, and for this reason the current review period should be extended until such time that the requested data is provided and the public allowed to review.

Erroneous Assumptions and Analyses

CAR-14 There remain critical flaws in the analyses that have a potential to impact significance determinations, including missing or incomplete analyses for a number of important resource areas that directly impact the local residents, the City's infrastructure, and the City's ability to provide adequate services to its residents. For example, the public services and recreation analysis is fundamentally flawed in its assumption that the 6,551 new residents would not require public services and recreational services outside of the campus grounds and would only utilize campus resources, and thus erroneously ignore the project's potential impacts to surrounding public agencies, as described below. For these reasons, the City insists CSUDH must recirculate the DEIR to adequately address the impacts the proposed project would have, not only on internal campus infrastructure and services, but in a realistic context on the local and regional services and infrastructure the introduction of 6,551 new residents in a highly urbanized area of Los Angeles County would have.

CAR-15 Additionally, due to the lack of quantified analysis and erroneous assumptions regarding public services in the Alternatives analysis, the actual impacts associated with the Alternatives discussed do not legitimately explain how the Alternatives reduce impacts compared to the proposed project. Rather, the "analysis" makes conclusory statements based on unsubstantiated assumptions that the alternatives will generally reduce impacts compared to the proposed project impacts. The purpose of the Alternatives analysis is to determine whether there is a feasible way

to achieve the basic objectives of the project, while avoiding impacts. (Pub. Resources Code, § 21002.1.)

Missing Analyses

Additionally, as explained in greater detail below, the alternative analysis for the increased Student Bed Alternative for air quality is presented in the Appendix but then is not summarized in the main body of the DEIR, which creates for confusing and incomplete analysis. Several sections need to directly analyze the proposed project's impacts and need to be updated to reflect project specific conditions at a site-specific, local and regional context, the current regulatory environment, and use of the latest tools, methodologies, or models. Regulations considered in the analysis should include local ordinances as well as relevant laws and policies from the regional, state, and federal level.

CAR-16

On the regional level, the overarching assumption of 6,551 new residents and 20,000 full-time equivalent students (FTEs) should be confirmed with Southern California Association of Governments (SCAG) and South Coast Air Quality Management District (SCAQMD) for consistency in the DEIR growth projections and air quality planning process. Mitigation Measure AQ-3 requires that CSUDH notify SCAQMD and SCAG of any approved campus development to ensure that campus growth-related emissions are accounted for in future regional emissions inventories.

Other Comments

Additional substantive flaws were found in the analyses supporting the impact statements presented in the DEIR. Specific issues as they appear in order in the DEIR include impacts related to aesthetics, air quality, GHG, biological resources, cultural resources, noise, transportation/traffic, public services and recreation, utilities and alternatives are described below.

CAR-17

Aesthetics

- The visual quality analysis should compare the project to the Design Guidelines for the campus and incorporation of a full description of the aesthetic character of the project and surrounding areas.

CAR-18

Air Quality and GHG

- For air quality and GHG, the analysis should be customized to the proposed project including detailed information from the TDM Plan and appropriate vehicle types.

CAR-19

CAR-20

- The emission calculations for operation were mostly based on the default values of CalEEMod, as well as for construction. As discussed in the DEIR, the Transportation Demand Management (TDM) Plan shall be implemented and it shall reduce vehicle trips and increase the use of transit, bicycling and pedestrian use on campus, which serves to result in mobile source emissions during operation. However, the emission calculations did not factor in the TDM Plan. Although the DEIR explains that the details for the project are only defined at a conceptual level and quantification for the associated emission reduction was not conducted, the conclusion of significant and unavoidable impacts of the project might be misleading.

CAR-21

- The DEIR lacks evidence in support of its qualitative assessment of potential health risk impacts during construction. The SCAQMD has established a numeric threshold for use in the evaluation of health risk impacts of "Maximum Incremental Cancer Risk $\geq$ 10 in 1 million", see http://www.aqmd.gov/docs/default-source/ceqa/handbook/scaqmd-air-quality-significance-thresholds.pdf?sfvrsn=2 , whereas the DEIR relies on an unsubstantiated qualitative comparison to criteria pollutant mass emissions thresholds. On page 3.2-26, the DEIR states that "Based on the project's anticipated construction activities, which would not exceed the SCAQMD's particulate matter-based thresholds, no significant health risk impacts to sensitive receptors located in the vicinity of the CSUDH campus would occur under Threshold 3." Without a quantitative Health Risk Assessment, the City cannot evaluate the adequacy of mitigation measures to reduce the exposure of Carson's citizens to potentially harmful TAC emissions. The City requests that a quantitative health risk assessment be performed and the results presented in the a recirculated revised.

CAR-22

- A recent California Supreme Court decision in *Sierra Club* vs. *County of Fresno* ("Friant Ranch Case") requires a reasonable effort be made to substantively connect the project's air quality impacts to specific health consequences (or explain why it is not feasible to do so) in the CEQA analysis. The DEIR doesn't include such an analysis. The City requests the recirculated revised provide such analysis.

CAR-23

- The DEIR concludes the GHG emissions are significant. However, no thresholds were provided as a reference for the conclusion.

CAR-24

- The approaches the DEIR took to calculate the emissions are too conservative that the reported values may not be representative of the actual emissions. For example, the DEIR did not include potential emission reduction associated with the TDM Plan; the DEIR

conservatively assumes that all square footage is new and additional even though some existing and less efficient square footage will be replaced with new and more efficient square footage.

- The DEIR should be project specific when calculating emissions so that the results can be as representative for the actual condition as possible. For example, the DEIR includes all the vehicle types in calculating the mobile source emissions for the operation activities of the project, i.e., students going to school and faculty/staff commuting. Heavy duty trucks or buses are generally not expected in the fleet mix for such activities and should be excluded in the calculation.

CAR-25

Biological Resources

- Page 3.3-1: Regulatory Framework Section. The DEIR does not include adequate information that the project would not be in conflict with the City of Carson's City Tree Preservation and Protection ordinance even though the DEIR indicates that mature trees may be removed as part of the project (Page 3.3-16, last paragraph). The DEIR needs to quantify the number of City-protected trees that may be impacted by the project, so that impacts can be evaluated and to determine the level of significance that may occur. Protected trees (or lack thereof) must be described in the Environmental Setting Section which begins on Page 3.3-5 and impacts to protected trees must be analyzed in the impact analysis. Mitigation measures to minimize the project's impacts on City-protected trees shall be included, such as onsite/offsite replacement or payment of an in-lieu fee in accordance with the City's Tree Preservation Ordinance. Mitigation should avoid deferral, carefully define the parties responsible and timing, be clear about the surveys required, and not repeat parts of the analysis.

CAR-26

- Page 3.3-4: Add California Fish and Game Code Sections 3503 and 3503.5, which protect nesting birds and should be added to the California Fish and Game Code section.

CAR-27

- Page 3.3-19: BIO-4. The DEIR concludes that the seasonal wetland is an isolated feature and therefore not subject to Section 404 of the CWA. In accordance with the 2015 Clean Water Rule (the current regulation in California on USACE jurisdiction) a significant nexus test must be conducted to determine if vernal pools are considered Waters of the U.S. As such, if additional wet season fairy shrimp surveys are required and result in the discovery of federally-listed vernal species, consultation with USFWS may be required under Section 7 or 10 of the Federal Endangered Species Act may be required. BIO-4 includes statements that are appropriate for the analysis section and not suitable to include in a mitigation measure

CAR-28

CAR-28 cont

(which is intended to describe the actions that will reduce a potential impact to a level of less than significant, not a summary or analysis of the impact). That said, based on the justification of the summary, this mitigation should not be required and it is borderline deferral in its current form. The City requires that the impact analysis take a firm stance on whether or not additional surveys are warranted based on survey protocol and professional experience. Additionally, the first sentence of this mitigation should be omitted, since it is a summary of the impact analysis.

CAR-29

- The sentence structure of the second paragraph should be refined. For example, CSUDH will not "cause" the facilities and improvement to avoid impacts to vernal pools, rather, it is the regulatory agency that will "require" avoidance to occur. Similarly, CSUDH will not "cause" consultation to occur, rather they will be "required" to engage in consultation. Lastly, the mitigation must be feasible and the measure shall indicate when mitigation shall be implemented.

Cultural Resources

CAR-30

- Appendix D.2. The names and qualifications of the individuals who completed the CSUDH Built Resources Report should be provided.

CAR-31

- Appendix D.2, page 14. The CRHR does not have a Criterion G. This is an NRHP criterion consideration. Please cite the correct code section for CRHR special considerations.

CAR-32

- On July 30, 2016, the California Natural Resources Agency adopted the final text for Tribal Cultural Resources update to Appendix G of the CEQA Guidelines, which was approved by the Office of Administrative Law on September 27, 2016. This separated discussion of Tribal Cultural Resources from other types of cultural resources.

CAR-33

- The Appendix G checklist was revised in December 2018 and discussion of paleontological resources was moved to the Geology and Soils. The DEIR section lacks a discussion of applicable laws, regulations, and ordinances for paleontological resources.

CAR-34

- The DEIR does not discuss local regulations or ordinances that are applicable to cultural resources.

CAR-35

- Page 3.4-2: Criterion D has information not applicable to this criterion within the bullet point.

CAR-36

- Page 3.4-3: In the first paragraph under "CEQA" heading, there is a step missing in the process described, which is to determine if the cultural resources qualify as "historical resources" pursuant to 15064.5. First, determine if cultural resources are present in the project site. Second, determine if those resources meet the criteria for "historical resources."

CAR-36 cont. Third, analyze whether the project would result in a substantial adverse change in the significance of historical resources. Please note that this is only applicable to resources that qualify as "historical resources."

- CAR-37 Page 3.4-5: Under heading "Archaeological Resources" it should be clarified that archaeological resources may be "historical resources" or "unique archaeological resources." CEQA Guidelines Section 15064.5(c) states that "when a project will impact an archaeological site, a lead agency shall first determine whether this site is an historical resource…"
- CAR-38 Page 3.4-5: Under California State Assembly Bill 52, the correct term for Native American groups is "California Native American tribes" which is the term used and defined in AB 52.
- CAR-39 Page 3.4-5: Under California State Assembly Bill 52, it should be clarified that consultation is only required with those tribes who have requested to be notified by the lead agency of projects within the tribe's geographical area and who request consultation in response to the lead agency's notification letter within 30 days of receipt of the letter.
- CAR-40 Page 3.4-18: Anthony Morales is associated with the Gabrieleno/Tongva San Gabriel Band of Mission Indians and Robert Dorame is associated with the Gabrielino Tongva Indians of California Tribal Council, according to the NAHC contact list.
- CAR-41 Page 3.4-19: Cultural Resources Surveys and Findings. Was an archaeological resources survey conducted? It appears that only the western portion of the project site has been previously surveyed, and that was at least nine years ago and is now out of date. From a review of aerial imagery, it appears that there are large areas that are undeveloped, particularly in the eastern portion of the project site that has never been subject to archaeological survey. Was a historic resources survey conducted for the built environment as part of this analysis?
- CAR-42 Page 3.4-19: Second paragraph under Cultural Resource Surveys and Findings. There were 10 previous investigations, seven within the project site and two additional within the 0.5-mile radius. What did the 10th study cover?
- CAR-43 Page 3.4-19: Second paragraph under Cultural Resource Surveys and Findings. What are the two previously recorded resources within the 0.5-mile radius? Is one of them the same as P-19-000794 described in the following paragraph?
- CAR-44 Page 3.4-19: Third paragraph under Cultural Resource Surveys and Findings indicates that no prehistoric or historic cultural resource were identified during the 2000 survey. Do

historic cultural resources refer to both archaeological and built environment resources, or just archaeological?

CAR-45

- Page 3.4-19: Second and third paragraph under Cultural Resource Surveys and Findings. There were seven previous studies within the project site. Why is only one study described? What did the other studies cover and what percentage of the project site has been previously surveyed?

CAR-46

- Page 3.4-19 to 3.4-20: Fourth paragraph under Cultural Resource Surveys and Findings. Why are the architectural historians reviewing the Archaeological Determinations of Eligibility list? It appears that perhaps not all buildings on the CSUDH campus were properly evaluated with respect for their potential as historical resources, as there is some conflicting language in the 2019 DEIR. For instance, on page 3.4-21, it states as follows: "For the purposes of this historical analysis, buildings over the age of 50 years old were analyzed for historical significance" However, on page 3.4-25, the first paragraph seems to contradict the statement on page 3.4-21 and to imply that all campus buildings were evaluated for their potential eligibility as historical resources, regardless of age. Per the California Office of Historic Preservation, all resources over the age of 45 years should be considered in the planning process. However, in addition, it is also worth noting here that the CRHR provides for a broader interpretation of exceptional significance under each of its criteria than does the NRHP. A resource less than 50 years old may be considered for listing in the CRHR if it can be demonstrated that sufficient time has passed to understand its historical importance. Moreover, as also stated in the guidance provided by the California Office of Historic Preservation, the language provided in CRHR criteria (CCR § 4852) is much broader than the NRHP eligibility requirement for exceptional significance. Specifically, the CRHR statute allows CEQA Lead Agencies a fair amount of flexibility in justifying that a resource is significant, even if that resource is less than 50 years old. (See http://ohp.parks.ca.gov/pages/1071/files/VI%20Understanding%20the%2050-year%20Threshold.pdf). As also stated within the guidance provided by the Office of Historic Preservation, this flexibility also puts greater responsibility on Lead Agencies to evaluate resources based on substantial evidence, rather than relying on the age of the resource alone. Given the fact that this flexibility puts greater responsibility on Lead Agencies to evaluate resources based on substantial evidence—rather than relying on the age of the resource alone—it appears that other buildings on campus—other than the ones

CAR-46B

CAR-46C

initially constructed, such as those dating from the early 1970s, should be evaluated for their potential eligibility as contributors to a historic district. The DEIR seems to imply that the campus was not evaluated as a potential historic district because it lacks cohesiveness and compatibility in its design expression, stating as follows: "Because of the multitude of forms and materials used, as well as the very long and drawn out development of the campus, the buildings lack an overall sense of design cohesion or architectural compatibility" (3.4-25). However, there is nothing in the NRHP's guidance on how to evaluate a historic district (*NRHP Bulletin #15: How to Apply the NRHP Criteria for Evaluation)* that suggests that design cohesion or architectural compatibility are requirements for eligibility as a historic district. Therefore, based on the guidance provided by the California Office of Historic Preservation, the City requests not only that all campus buildings 45 years of age or older be evaluated for potential eligibility to the NRHP and CRHR, but that all campus buildings be evaluated for their potential to contribute to a historic district and/or to meet the exceptional significance requirement under either the NRHP or the CRHR criteria (this comment also directly relates to the next comment presented here in regard to the development of a fulsome historic context statement under NRHP/CRHR Criterion A/1).

CAR -46 D

CAR-47

- With regard to cultural resources, the City is concerned with the discussion concerning the historic built environment on the project site and its relevance as a resource to the project area. The DEIR ignores the historic built environment of the campus by excluding the local history pertaining to the development of the California State University, Dominguez Hills campus and is completely missing in the "local history" subsection of the DEIR (pages 3.4-17 to 3.4-18). Moreover, any semblance of an historic context statement for the development of the CSUDH campus—as presented in the "Cultural Resource Surveys and Findings" section rather than the "local history" subsection"—appears woefully insufficient. Without a fulsome historical context statement, it is not possible to properly evaluate the potential historical resources that are present on the site under either the NRHP or the CRHR criteria. This deficiency is evidenced not only in the 2019 DEIR, but also in the technical reports that support it. For instance, the CSUDH Built Resources Report (BRR) prepared by WSP and dated June 18, 2018, which supports the 2019 DEIR, does not provide much in the way of a rationale for not evaluating the campus under Criterion A. It simply states as follows: "The Small College Complex is not eligible under Criterion A. Research has not indicated that the Small College Complex is associated with events that made a significant contribution to the

CAR-48

CAR-49

broad patterns of California history. The buildings were constructed quickly to accommodate arriving students and did not influence higher education trends within the CSU system" (p. 12). However, no substantial discussion of higher education trends within the CSU system during the mid to late 1960s, when the campus first began to be constructed, is provided. Moreover, there is strong evidence to suggest that, in fact, the California State University, Dominguez Hills campus may be significant under CRHR Criterion 1 as one of the primary campuses—if not the primary campus—in California created to serve racial minorities (namely, African American students) in the mid-1960s in direct response to the political unrest of the time and demands for change posed by a growing protest movement in the United States, such as the American Civil Rights Movement. One of the major demands of the American Civil Rights Movement, in fact, was for equal access to education opportunities by minority students. As the BRR describes, the campus was initially planned, in the early 1960s, to be constructed in Palos Verdes, a wealthy enclave that was predominantly—if not exclusively—white. However, by the mid-1960s, the decision was made to place the campus to the east in the much less affluent community of Dominguez Hills. However, the reasons for the relocation of the campus to Dominguez Hills are not discussed in any great detail nor is it linked to trends in higher education within either the 2019 DEIR or the 2018 BRR that supports it.

CAR-50

- In the section of the DEIR entitled "Impacts Analysis for Historical Resources", there is a lack of supporting data regarding what research was conducted to identify significant individuals under CRHR Criterion 2 (Pages 3.4-26 to 3.4-29). For instance, there is no discussion of previous faculty or students who may be persons important in California's past. Moreover, given that there is strong evidence to suggest that the establishment of the campus may be significant under CRHR Criterion 1 for its association with the 1960s protest movement and the civil rights movement—in which equity in access to education was an important goal—there also may be significant individuals associated with one of these two movements that played a role in the establishment of the CSUDH. The City requests that a thorough discussion of the research that was conducted to identify significant individuals under CRHR Criterion 2 be provided in the recirculated revised.

CAR-51

- Page 3.4-25: Existing Paleontological Resources. This section needs to be moved to the Geology and Soils Section per the recent updates to the CEQA Guidelines. The information provided is out of date. An updated LACM database search should be conducted for the project site given that at least 10 years have elapsed since the original search in order to

CAR-52

provide information on any localities that may have been recorded within or nearby the project site within the last 10 years. What/where is the fossil locality that may lie within the proposed project boundary? What are the nearby localities from similar sediments, how close are they to the project site, and at what depths were they encountered? What is the geologic setting of the project site? In the section of the 2019 DEIR entitled "Impacts Analysis for Historical Resources", the discussion of architectural merit for the Small College Complex appears inadequate (pages 3,4-26 to 3.4-29); there are many assertions that appear both unsubstantiated and based on information first provided in the 2009 Master Plan EIR. For example, the CSUDH Built Resources Report (BRR) prepared by WSP and dated June 18, 2018, which supports the 2019 EIR, states that the buildings were constructed in 1968 and 1969, and it notes that they do possess some architectural merit; however, it also notes that the Small College Complex may have been designed only as temporary structures of relatively inexpensive construction. For this assertion, the BRR cites the 2009 Master Plan EIR in stating that the buildings were intended to be "temporary"; however, here it is important to note that the 2009 Master Plan EIR describes "temporary" as meaning that they "appear to have been envisioned as temporary structures that would serve the campus for only the 30-year period of the 1964 master plan." However, a planned 30-year life span for a building is hardly temporary in the sense that the word is commonly used (i.e., a lean-to, a tent structure, etc.), and the argument that buildings were only "temporary" seems irrelevant in terms of analyzing their architectural significance; obviously they were designed of substantial enough construction that they remain extant today, whatever the original intent was for their use and retention on the campus. Secondly, the manner in which the Small College Complex is described within the BRR works to cast doubt on the assertion that the buildings are not architecturally significant.

CAR-53

- Moreover, the buildings are described with many of the features that characterize architecturally significant buildings designed in California in the decades following World War II. Such features include the vernacular International Style massing alluded to in both the BRR and the 2009 Master EIR; the concrete masonry and post-and-beam construction; the glulam trusses; the wood-beam supported roofs; the steel framed windows tucked under roof eaves; and the wooden trellis sunshades. The BRR also draws on information provided in the 2009 Master Plan EIR in asserting that "the Small College Complex used inexpensive construction techniques and may have been built as a temporary building complex while construction ensued on the campus' major buildings over the next few years. This design

CAR-54

approach is contradictory to the methods employed in significant Modernist buildings of the era that employed high-quality materials, albeit in a new design vocabulary." However, this statement is inaccurate in asserting that significant Modernist buildings of the era only employed high-quality materials. While the high-quality materials associated with Miesian design were certainly one design idiom that many architects followed in the decades following World War II, there were also many California modernist architects—especially those associated with John Entenza's Case Study Program following World War II, such as Ray and Charles Eames, Richard Neutra, and William Wurster—who delighted in using inexpensive, mass-produced materials in new and innovative ways and according to the design precepts once espoused in the Bauhaus. Given that neither construction as a "temporary" building nor the use of inexpensive materials automatically disqualifies a building for eligibility as an historical resource under NHRP Criterion C/CRHR Criterion 3, the City requests that a more fulsome description of the Modern Movement in architecture be provided in the recirculated revised that adequately provides the context in which these buildings may be understood and properly evaluated. The analysis of impacts to the Leo F. Cain Library is inadequate. For instance, no discussion is provided of the character-defining features that convey the building's historical significance. Nor is there adequate description provided of the relationship of new construction to the library building, or the potential impact of the new construction on the historical resource in terms of either its design compatibility or in terms of potential effects during the construction process, such as the potential for damage to the historical resource due to construction-related vibration. The City requests that a more fulsome analysis of impacts to the Leo F. Cain library be prepared and incorporated into the recirculated revised DEIR.

CAR-54

CAR-55

- Page 3.4-29: Was an geoarchaeological study conducted to identify the potential for buried archaeological resources? This type of study would draw on geological and soils data to assist in determining the level of sensitivity for archaeological resources. It would determine the depositional history of the project site and the potential for surface or deeply buried sites.

CAR-56

- Page 3.4-29: Were geotechnical reports and environmental reports (such as Environmental Site Assessments) consulted? These reports would also help assess the buried site potential and areas of greater/lesser previous disturbance.

CAR-57

- Page 3.4-29: Where are the areas that have not be previously been subject to extensive ground disturbance?

CAR-58

CAR-59

- Page 3.4-29: According to information provided under the paleontological analysis, the project site is situated on older Quaternary alluvium. These sediments typically pre-date the widely accepted evidence for sustained human occupation in the region, and suggests that if archaeological sites are present within the project site, they would be on the surface and there might be evidence of them that could be visible during a pedestrian survey.

CAR-60

- Page 3.4-29: There is no data presented in the section to support a depth of 5 feet as the level at which paleontological sensitivity begins. Since older Quaternary alluvium is present at surface, and these sediments are old enough to have preserved fossils, ground disturbance at any depth has the potential to encounter significant paleontological resources. Is a paleontological resources survey warranted given that fossil-bearing sediments are mapped at surface?

CAR-61

- Page 3.4-32: CUL-2. Retain a Qualified Archaeologist. Who is responsible for retaining the qualified archaeologist? CSUDH? Their contractor?

CAR-62

- Page 3.4-32: CUL-3: Avoidance of Potentially Eligible Archaeological Sites through Project Design. What is the process for determining if a site can/cannot be avoided and what entities are responsible for making that determination?

CAR-63

- Pages 3.4-32 to 3.4-33: CUL-4. Phase II (Evaluation) and Phase III (Data Recovery) Cultural Resources Investigations. Phase II Evaluation should only be applicable to inadvertent discoveries of unknown archaeological resources. Per the comment above, a good faith effort to identify and evaluate archaeological resources as historical resources should be conducted prior to certification of the EIR.

CAR-64

- Pages 3.4-32 to 3.4-33: CUL-4. Phase II (Evaluation) and Phase III (Data Recovery) Cultural Resources Investigations. This measure should provide a mechanism to allow Native American representatives the opportunity to provide input on significance, treatment, and disposition of any prehistoric or Native American cultural resources to ensure that values beyond those that are considered scientifically important are considered.

CAR-65

- Pages 3.4-32 to 3.4-33: CUL-4. Phase II (Evaluation) and Phase III (Data Recovery) Cultural Resources Investigations. Use of the word "should" is not legally binding or enforceable. The measure should describe the process by which disposition of artifacts shall be determined and use the word "shall".

CAR-66

- Page 3.4-33: CUL-4. Phase II (Evaluation) and Phase III (Data Recovery) Cultural Resources Investigations. Last two sentences of the first paragraph should be revised to indicate that "If

Phase II testing of any previously unknown archaeological site exhausts the data potential of the site or determines that the site is not significant, data recovery shall not be required."

- CAR-67 Page 3.4-33: CUL-5. Construction Monitoring for Archaeological Resources. Who is responsible for retaining the qualified archaeological monitor? What is the definition of "qualified archaeological monitor"? What are the responsibilities of the monitor? What are the reporting mechanisms (daily, weekly, monthly, final report)? How will CSUDH compile a record of compliance with this measure?
- CAR-68 Page 3.4-33: CUL-6. Inadvertent Discoveries. Replace the word "should" with "shall" which is legally binding and enforceable.
- CAR-69 Page 3.4-33: CUL-6. Inadvertent Discoveries. Native American representatives should be afforded the opportunity to consult on the final disposition of any recovered prehistoric or Native American cultural resources.
- CAR-70 Page 3.4-33: CUL-6. Inadvertent Discoveries. The term "project archaeologist" has not been defined. Should this be the qualified archaeologist?
- CAR-71 Page 3.4-34: CUL-7. Who is responsible for retention of the qualified paleontological monitor? What is the definition of "qualified paleontological monitor"? The paleontological monitor should meet the Society of Vertebrate Paleontology standards for paleontological monitors. What are the reporting mechanisms (daily, weekly, monthly, final report)? How will CSUDH compile a record of compliance with this measure?
- CAR-72 Page 3.4-34: CUL-7. A Qualified Professional Paleontologist meeting the Society of Vertebrate Paleontology standards should be retained to oversee paleontological monitoring and to be on call in the event of a discovery.
- CAR-73 Page 3.4-34: CUL-7. As noted previously there is no data to support 5 feet as the depth where paleontological sensitivity begins. The project is underlain with older Quaternary sediments, which suggests paleontological sensitivity at surface.
- CAR-74 Page 3.4-34: CUL-7: The Qualified Professional Paleontologist should be the person making the determination as to whether monitoring can be reduced.
- CAR-75 Page 3.4-34: CUL-8: This mitigation measure should describe the radius of a protective buffer that will be established in the event of the discovery of a paleontological resource.
- CAR-76 Page 3.4-34: CUL-9 through CUL-11. Who is responsible for carrying out these measures?
- CAR-77 Page 3.4-34: CUL-11. Which County and why the County? Who is the report and inventory being submitted to?

CAR-78
- Page 3.4-34: CUL-12. What is the procedure for halting work and establishing a protective buffer? Who will be responsible for notifying the County Coroner?

CAR-79
- Page 3.4-34: CUL-12. "If the human remains are determined to be prehistoric" should be changed to "If the human remains are determined to be Native American." Native American human remains can date to proto-historic and historic periods, not just the prehistoric period.

CAR-80
- Page 3.4-34: CUL-12. Public Resources Code section 5097.98(a) states "The descendants shall complete their inspection and make recommendations or preferences for treatment within 48 hours of being granted access to the site." The MLD has 48 hours from the time of *being granted access to the site*, not from the time of notification, to complete their inspection. This measure should stipulate that the provisions of Public Resources Code section 5097.98 shall be followed in determining treatment and disposition of Native American human remains. Note that "The nondestructive removal and analysis of human remains and items associated with Native American human remains" is but one of the scenarios provided in Public Resources Code section 5097.98.

CAR-81
- Page 3.4-34: CUL-13. Retain Qualified Native American Monitor. Isn't the Project Applicant CSUDH? What constitutes a "qualified Native American monitor"? If the Gabrieleno Band of Mission Indians and the Gabrieleno Tongva Indians of California do not agree on the monitor, what is the protocol? Why are these two groups identified? It appears that the Gabrieleno Band of Mission Indians – Kizh Nation, Gabrieleno/Tongva San Gabriel Band of Mission Indians, and Gabrielino Tongva Indians of California Tribal Council all expressed interest in the project. Why does CUL-6 state that "As part of this process, it may be determined that a Native American monitor will be required" if Native American monitoring is already required by CUL-13?

Noise

CAR-82
- The noise analysis should include baseline ambient noise measurements and evaluate a conservative worst-case scenario that is comprehensive of all sources (spectator noise, retail noise, parking lot noise, construction noise, on campus activity noise, etc.), including overlapping noise sources. Performance standard mitigation measures are suggested to provide optimize effectiveness.

CAR-83
- The noise analysis includes traffic noise, but does not include noise analysis for construction and other operational noise.

CAR-84
- The appendix to the noise analysis (calculations, model runs, etc.) should be attached.

- No noise measurements were taken to establish baseline ambient noise levels. Instead, traffic noise was modeled using existing traffic volumes. This method of establishing the baseline does not account for other noise sources in the area, such as existing on-campus activities, residential and commercial noise sources, and any aircraft noise. Without establishing baseline ambient noise levels that take into account all noise sources in the Project area, the City cannot properly evaluate the potential for Project construction and operation to impact the ambient noise environment. The City requests that noise measurements be taken to establish the baseline noise levels from which project noise will be compared to determine impact.

CAR-85

- Page 3.6-10: The introductory paragraph to Table 3.6-summarizes pre- and post- event noise as one range of noise levels. The City recommends including a brief summary of typical activities (specifically, noise-generating activities) occurring pre- and post-event. Because pre- and post-event noise sources likely differ, the City recommends discussing the pre- and post-event time periods separately.

CAR-86

- Page 3.6-13: Construction would involve the operation of more equipment than a single concrete saw. The section calculates the distance at which operation of a concrete saw would dissipate to below the applicable significance thresholds at each receptor. Without the analysis of a potential construction scenario in which anticipated construction equipment noise is evaluated, the City cannot evaluate the impact of Project construction or adequately provide mitigation to reduce impacts to less than significant levels. The City requests that the analysis be revised to reflect the potential for the operation of multiple pieces of equipment simultaneously and implementation of mitigation as appropriate.

CAR-87

- Page 3.6-22 - <u>After Game Spectator and Parking Lot Noise</u>. This section discusses existing mechanisms to control and track spectator and parking lot noise but has not analyzed increases in ambient noise due to the addition of 3,000 spectators and associated parking lot noise under the proposed condition. The adequacy of existing mechanisms to control spectator and parking lot noise cannot be determined. Additionally, the effectiveness of existing mechanisms cannot be quantified based on the current analysis/discussion. The City requests that impacts associated with increased spectators and parking lot activity be quantified and compared to the existing condition. Additionally, the City requests that a discussion and analysis of increased cheering during a sporting event be included.

CAR-88

- Page 3.6-23: As stated above, the construction noise analysis should include analysis of a potential construction scenario in which anticipated construction equipment noise, not just a concrete saw, is evaluated. Mitigation measure NOI-1 does not provide a performance standard that can be measured and enforced. The City requests that Mitigation measure NOI-1 be revised to include a performance standard for which construction noise needs to meet. CAR-89

- Other components of the proposed project operations have not been analyzed. The project includes new athletic fields, parking lot capacity, open space areas for students to gather, retail use, etc. the City requests that any noise associated with changes in campus operations needs to be addressed and the whole of project-related noise increases analyzed. CAR-90

Population and Housing

- The Population and Housing analysis relies on "SCAG RTP/SCS" projections to attempt to connect the future proposed University Villages development with the housing needs of the City of Carson, but fails to adequately review the housing needs identified in the adopted and certified Housing Element prepared by the City in 2013, which identified the need for 1,698 new affordable housing units to be built in the City to accommodate the needs of the City and its residents (current and future residents). CAR-91

- The TIA (Exhibit 28: Key Project Elements of Alternative 1 by Year and Exhibit 33: Key Project Elements of Alternative 2 by Year) shows an increase of 12,173 persons in 2035 (change from existing). This does not include the market rate dwelling units or retail. According to the SCAG report (https://www.scag.ca.gov/Documents/Carson.pdf) the average household size in Carson is 3.6. Using this metric, the new resident population would be 7,736. Note that, the average rate includes single family homes, too. It appears that the population section ignores the new student residents. If we include the non-resident population, the number would be even higher. CAR-92

- The Housing Element also clearly identifies the "types" of housing stock that the residents actually need, where 208 units have been identified as being required for "market rate" types of development. If the DEIR is going to rely on the City's needs to accommodate residential requirements in the vicinity, the DEIR should review the Housing Element and the actual housing needs of the City. The analysis fails to acknowledge the new housing stock that has been added to the City since the SCAG RTP/SCS" projections (or the Housing Element) were conducted. Thus, the DEIR fails to acknowledge the stress the new proposed residential units would have on existing infrastructure, beyond the need to expand existing sewer and CAR-93

water line capacity on the campus. Lastly, the DEIR should also look at other infrastructure that may be required to be expanded to accommodate the project, which could induce additional population to the project area, such as roadways and other infrastructure. This issue also affects the cumulative impact analysis in the DEIR, which must be reconsidered after all other deficiencies in the DEIR have been corrected.

- The DEIR does not describe in the Population and Housing section (or elsewhere in the document) the methodology upon which the population projections for the proposed project were based. Rather, the DEIR alludes to census tract data for the zip code, but does not state specifically the calculation projects used to identify how the population generation rates, per proposed product type were derived from. CAR-94

- Without this information we are unable to discern how the proposed project arrived at approximately 6,551 new persons would be introduced to the project area. CAR-95

Public Services and Recreation

- The public services and recreation section indicates the development of new student housing and apartments at University Village would increase the campus resident population by an estimated 6,551. The DEIR assumes adequate services are available to service the proposed project and no additional public service facilities would be required to support the addition of 6,551 new residents, plus an unknown number of workers and business patrons, to the City of Carson. However, the DEIR is missing service letter request and responses from the Los Angeles County Fire Department, the Los Angeles County Sheriff's Department, the Los Angeles Unified School District, the City of Carson Parks and Recreation Department and the Los Angeles County Library. We are unable to determine the actual impacts of the proposed project based upon the assumptions provided in the DEIR, without supporting data from the potentially impacted public agencies. In addition, the public services and recreation analysis is fundamentally flawed in its assumption that the 6,551 new residents would not require public services and recreational services outside of the campus, and thus erroneously ignores the project's potential impacts to surrounding public agencies, as described below. CAR-96

- The fire services analysis assumes there are adequate facilities for fire services and acceptable service ratios, response times would be maintained without providing substantive evidence, namely confirmation from the Los Angeles County Fire Department. The analysis does not adequately address the fire protection needs of the University Village portion of the project and the impact the proposed project has on service levels to the existing population CAR-97

within the City. It assumes there is available capacity at Station 116 despite the fact the Fire District has already identified a need for an additional fire station in Carson to serve the existing population and does not have sufficient funds to build another station. The DEIR must provide for mitigating the fire services impacts by entering into a mitigation agreement with the Fire District or the City as determined by the City and the Fire District to pay a mitigation fee to the City which should be used to fund a new fire station in Carson prior to issuance of any building permits or construction of any structures.

- The police services analysis assumes police protection would be provided solely by Campus Police staffing. It fails to include an analysis of how the increase in population could result in substantial adverse physical impacts associated with the provision of new or physically altered governmental facilities, need for new or physically altered governmental facilities, the construction of which could cause significant environmental impacts, in order to maintain acceptable service ratios, response times or other performance objectives for the Los Angeles County Sheriff's Department, who would also serve the residents of the project in instances where Campus Police is insufficient or incapable of responding to the type of criminal act, or in instances where the crime occurs outside of campus boundaries. Further, the police services analysis provided in the DEIR does not specify how many Campus Police staff would be added to respond to the increase demand in police services that is likely to occur with a 77% increase in student FTE, and thus does not provide sufficient detail to support a less than significant impact determination.

CAR-98

- The DEIR makes no attempt to estimate the impact of the increase in student population, new resident, and employees and patrons of the business park and retail uses will have on the law enforcement responsibilities and services of the Carson Sheriff's Station.

CAR-99

- The below table represents current population to law enforcement ratios / cost FY 2018-2019:

CAR-100

City Population	95,324
Number of contracted deputy/supervisor personnel	71.96
Ratio of deputies per 1,000 residents*	0.754
Average population per deputy	1,325
Carson Sheriff's Contract	$19,791,102
Average Sheriff's Cost per 1,000 residents*	$207,619

*Based 2018-2019 personnel cost set by the Los Angeles County Auditor Controller's Office. General law enforcement rates and associated liability insurance cost have risen at a consistent average rate of 3%-6% a year.

- The above resident ratio in determining per capita law enforcement cost does not take into consideration daytime population, which likely would be larger in light of the attraction of the business park and retail development. In general, most of the Sheriff's Department contact associated with students, faculty, new residents, employees of the business park and the retail uses, and guest of the Dignity Health Sports Park Stadium off the facility are attributable to traffic enforcement and collisions. The Sheriff's Department has concluded there is a need for an associated increase in Sheriff's staffing of one deputy per 13,250 full time student, faculty, new residents, employees of the business park and the retail uses equivalent. This recommended increase in law enforcement services represents a 10% factor of the current average resident population per deputy ratio. It is estimated that there will be:

CAR-101

9,000 full-time equivalent students
6,000 new residents
821 for Business Park and retail
Total increased population at build-out 15,821

- At a rate of one deputy per 13,250 full time students, faculty, new residents, employees of the business park and the retail uses equivalent, the proposed project would require 1.2 deputies at a current cost of $207,619.00 per deputy for a total $249,142.00 annually at project buildout. The DEIR needs to include mitigation measures that take into account the phasing of the project and provide for mitigation payments to the City reflecting a cost increase for police service of 6% annually starting from 2019. The DEIR shall include a mitigation agreement with the City to pay the City for this mitigation fee.

CAR -102

- The public school capacity analysis is based on a projected report over 15 years old (LAUSD, School Facilities Needs Analysis for Los Angeles Unified School District, September 2002) and the "Phone Surveys" cited in the DEIR to support the adequate capacity determination were not provided in the Appendices.

CAR -103

- The analysis of impacts to schools should make reference to and abide by State Bill 50 (SB 50), or the Leroy F. Green School Facilities Act (Act), which provides for funding for higher education facilities, K-12 facilities, modernization of older schools, additional funding for districts in hardship situations, and funding for class size reduction. This Act provides for a mandated CEQA mitigation fee for schools. SB 50 consists of an impact fee levied on a square footage basis for residential and commercial development. The payment of school fees to LAUSD prior to issuance of building permits is required to fund additional

CAR -104

educational facilities for K-12 students among the 6,551 new residents the DEIR assumes will reside in the housing that will be constructed as part of the proposed project.

- The library analysis assumes the 6,551 new residents would only utilize campus libraries and ignores impacts to local regional libraries, which new residents, including students, will also have access to. No basis for this assumption is stated. Residents of University Village who have no affiliation with the University are particularly likely to rely on local regional libraries rather than more research-oriented campus libraries, which are also not directed at serving the library needs of children.

CAR -105

- Similar to the library analysis, the parks and recreation analysis assumes adequate facilities exist on campus for new residents, without addressing impacts to the recreational facilities in the City from their use by new residents. On that basis, the DEIR looks to existing facilities on the campus, the Dignity Health Sports Complex, City and County parks and private recreational facilities that are assumed will be part of University Village. No basis for these assumptions is stated. Residents of University Village who have no affiliation with the University will not necessarily use campus parks and recreational facilities. Further, the DEIR ignores the City's General Plan, which requires new projects to provide 3-acre of parkland per 1000 people. The DEIR assumes the proposed project's 2,150 market-rate residential units will generate 6,551 new residents, which translates into a requirement for 18.06 acres of additional parkland. The DEIR does not address this. Furthermore, the Los Angeles County Parks Assessment Study has determined the City needs approximately $23,000,000 for new parks and approximately $54,000,000 for upgrading existing parks. The proposed project must be required to mitigate these impacts by providing for payment of the City's newly adopted Interim Development Impact Fees (IDIF) and Citywide Community Facilities District (CFD).

CAR -106

- To offset this potential impact, the City requests the project be subject to the provisions of the updated Quimby Act, as implemented within the City of Carson, which requires the payment of fees for park improvements and recreational facilities within the vicinity of the project site to serve residents of University Village.

CAR -107

- The public services and recreation analysis should be reevaluated to account for the impacts to surrounding public agencies, as well as results from proper coordination with these services to obtain an accurate baseline for this analysis and accurately evaluate impacts.

CAR-108

- Moreover, there is no discussion of proposed project impacts from construction or operations on local built roadways and supporting infrastructure. The public services section and the transportation analysis makes no reference as to how the increased population in the project vicinity would impact City roads and sidewalks. The City requests an appropriate fee be provided for the increased maintenance and repairs of City roads and sidewalks surrounding the project that will be required with implementation of the proposed project once the impacts have been accurately determined by additional analysis in the recirculated revised.

CAR -109

Traffic

- Volume Development Methodology

Project Trips

CAR-110

- Trip generation rates used in the TIS are unverifiable with the information provided.
- The TIS lacks a project trip distribution and assignment even though the County of Los Angeles DPW guidelines require this information. Per the LA County Department of Public Works TIS Guidelines, "*2. Trip Distribution - **Diagrams showing the percentages and volumes of the project** and nearby project's **a.m. and p.m. peak-hour trips logically distributed on the roadway system must be provided**. The Regional Daily Trip Distribution Factors (Exhibit D-3) contained in the Congestion Management Program (CMP) Land Use Analysis Guidelines shall be referenced for regional trip distribution assumptions*" (bold & underline added).

CAR-111

- In the absence of baseline trip generation information, Existing traffic volumes were subtracted from the Existing Plus project traffic volumes to determine trip assignment for purposes of our analysis of the DEIR. However, if the proper trip generation information had been provided, this would not have been necessary.

CAR-112

- The change in vehicles leaving and entering the relevant legs of the project access locations (intersections 1-9) were reviewed. This revealed that, for Alternative 1, 2,465 vehicles were inbound and 1,330 vehicles outbound in the a.m. peak hour for a total of 3,795 vehicles, and for the p.m. peak hour, 1,995 vehicles were inbound, and 2,360 vehicles were outbound for a total of 4,355 vehicles. The corresponding numbers from the trip generation of Alternative 1 were 3,071 vehicles inbound and 1,295 vehicles outbound in the a.m. peak hour for a total of 4,366 vehicles (trip generation is higher by 571 vehicles, or approximately 13% vehicles not assigned on the network), and for the p.m. peak hour, 1,926 vehicles were inbound and 2,638 vehicles were outbound for a

CAR-113

total of 4,564 vehicles (trip generation is higher by 209 vehicles, or approximately 5% of the trips are not assigned on to the roadways). A trip assignment figure would have helped identify this discrepancy prior to circulation.

CAR-114

- At several locations, through movements have been eliminated. Please address how this will be achieved when both inbound and outbound left and right turns are allowed. If existing trips have been rerouted to other locations, please show where and how. CEQA is a disclosure document and it is necessary to show the steps. The current TIS does not show any steps and expects the reader to accept provided data as fact.

CAR-115

- At intersection 16, volumes for some movements are decreasing under existing plus project conditions. The percentage reductions are vastly different for the a.m. and p.m. peak hours. This occurs at other intersections too. The traffic volumes on the east leg of the intersection decrease by 262 vehicles during the p.m. peak hour – which is counterintuitive since the project adds a significant number of trips. All locations need to be reviewed for this kind of discrepancy and the discrepancy needs to be explained in a recirculated revised.

CAR-116

- At intersection 19, the total increase in traffic volumes on the west leg is 22 trips during the a.m. peak hour and 31 trips during the p.m. peak hour. If traffic volumes at the east leg of intersection 16 (Central/Victoria) are decreasing, and since intersection 16 is closer to the project, how are the volumes on the west leg of intersection 19 increasing since logically, those trips would have to come through intersection 16. Calculations at all intersections need to be verified.

CAR-117

- It appears that the "Plus Project" scenarios are using numbers rounded to the nearest 10 while the "No Project" scenario is not. A consistent methodology should be used.

Future Volumes

CAR-118

- No information is provided regarding how future traffic volumes were developed. The response to our previous request for volume development worksheets was that industry best practices were used, and future volumes were developed by adding growth rates and trips from cumulative projects. Some traffic volumes do not appear to be logical. For example, westbound left turn at intersection 1 increases from 10 existing vehicles during the a.m. peak hour to 40 vehicles under year 2025 without project. Since that movement is into the project site, it is unclear how the increase is 300% when the growth factor is less than 1% per annum and cumulative projects should not be making that particular movement. Volume development worksheets must be disclosed.

CAR-119

- A figure showing cumulative project trips must be provided so that the growth factors and cumulative project trips can be independently verified. Again, this is required per the LA County DPW Traffic Impact Study Guidelines referenced earlier.

- LOS Analysis Methodology

CAR-120

- The LOS tables state that HCM 2000 methodologies were used for unsignalized intersections. It is unclear why HCM 2000 was used because there have been two subsequent versions of the HCM (HCM 2010 and the current edition, HCM 6th Edition). Further, there have been methodological changes in the latter versions as well, wherein, the LOS is based on the worst movement rather than the worst approach. The LOS tables must be revised based on the current version of HCM and, to the extent the traffic analysis is based on those tables, the traffic analysis must be revised as well.

CAR-121

- The TIS uses ICU methodology for the freeway ramps. Caltrans requires that ramp intersections be evaluated using the latest version of the HCM.

CAR-122

- The TIS does not review queueing at any intersection. While queueing cannot be identified using the ICU methodology, the effect of queues substantially affects traffic operations, especially at the access points and surrounding intersections due to the large number of trips. This is also important during events at StubHub Center when many vehicles enter and exit the site in a very short period of time.

CAR-123

- Intersections within the campus should be included in the analysis because there are several stop-controlled intersections with low stacking spaces – and traffic operations on the City streets will be affected due to queue spillovers.

- Mitigation Measures

CAR-124

- The TIS lists most mitigation measures as infeasible. While it could be true in some cases, even minor improvements such as installation of traffic signals and signal modifications have been deemed infeasible. Improvements must be re-evaluated after the TIS is revised using revised volumes (if necessary) and the latest versions of LOS analyses methodologies.

CAR-125

- We have also reviewed the fair share calculations provided by the University. The signal at Victoria Street and Drive D is required to address project impacts, and the fair share attributed to the project is 100%. The University's fair share worksheet assesses 66% as the fair share of the project for the westbound left turn lane. However, because this lane will primarily serve the campus, it should be assessed at 100%.

CAR-126

- While Exhibit 52 to the TIS shows direct project impacts at multiple locations, fair share calculations have only been provided for one intersection. The impacts requiring fair share impacts must be reassessed.

Utilities

CAR-127

- The utilities section is missing acknowledgement of the NPDES permit, Joint Water Pollution Control Plant, and discussion in the existing conditions for recycled water, solid waste and petroleum as it relates to the proposed project.

CAR-128

- The Water Supply Assessment does not include a verification letter from a water purveyor and does not follow the requirements of Senate Bill 610 and the Guidebook for Implementation of Senate Bill 610 and Senate Bill 221 of 2001.

Alternatives

CAR -129

- The Alternatives chapter is confusing and does not provide sufficient analysis to support the conclusions for most of the analysis considered to have less-than-significant impacts compared to the proposed project. Specifically concerning to the City is that the DEIR considers two alternatives (the Increased Student Housing Alternative and the Increased Student Housing with Market Rate Relocation Alternative) that actually increase the number of student beds while only slightly reducing the number of "market rate units." For these alternatives, the increased student beds and impacts associated with the beds are not clearly explained in the Alternatives analysis and it is our understanding one of these options may be adopted as the preferred Alternative.

CAR -130

- It is unclear from the analysis how these Alternatives are addressing traffic and circulation impacts as again, the methodology is not provided to discern what the proper trip generation rates would be for these uses.

CAR -131

- Similar to the Public Services section analysis, the alternative analysis for public services does not provide substantive evidence to conclude the demand caused by the Increased Student Housing Alternative and the Increased Student Housing with Market Rate Relocation Alternative would be adequately managed by all services in the community.

CAR -132

- For these reasons, the alternative analysis is in violation of CEQA Guideline Section 15126.6 (d), which requires each alternative to be evaluated in sufficient detail to determine whether the overall environmental impacts would result in less than, similar to, or greater than the corresponding impacts of the proposed project.

CAR -133

- Analyses of alternatives are not responsive to the initial study checklist questions and the final conclusion/impact statements are not adequately supported.

CAR -134

- Appendix B provides the air quality and GHG analyses for project alternatives. Such information is not included in the body of the DEIR, which creates for confusing and incomplete analysis.

CAR -135

Pursuant to California Environmental Quality Act (CEQA) Guidelines, Section 15088.5(a), CSUDH is required to recirculate a DEIR when significant new information is added to the DEIR after public review of the DEIR, but before certification. Significant new information can include changes in the project or environmental setting, as well as additional data or other information. Based on our review of the DEIR, new information is required concerning University Village, StubHub Center, the traffic methodology, project impacts on public services, infrastructure impacts, and other issues. The absence of this information deprives the City and the public of a meaningful opportunity to review and comment on the proposed project impacts. In accordance with the spirit of CEQA, we request CSUDH remedy the aforementioned deficiencies in the DEIR and recirculate the DEIR to adequately address the comments and concerns of the City.

Please feel free contact me (310) 952-1728/ jraymond@carson.ca.us or Saied Naaseh, Community Development Director at (310) 952-1770/ snaaseh@carson.ca.us.

Sincerely,

John Raymond
Acting City Manager

Office of Planning and Research – State Clearing House

STATE OF CALIFORNIA

Governor's Office of Planning and Research

State Clearinghouse and Planning Unit

Gavin Newsom
Governor

Kate Gordon
Director

April 16, 2019

Jay Bond
California State University, Dominguez Hills
1000 E. Victoria Street
Carson, CA 90747-0005

Subject: California State University, Dominguez Hills 2018 Campus Master Plan EIR
SCH#: 2017081035

Dear Jay Bond:

OPR-1

The State Clearinghouse submitted the above named EIR to selected state agencies for review. On the enclosed Document Details Report please note that the Clearinghouse has listed the state agencies that reviewed your document. The review period closed on 4/15/2019, and the comments from the responding agency (ies) is (are) available on the CEQA database for your retrieval and use. If this comment package is not in order, please notify the State Clearinghouse immediately. Please refer to the project's ten-digit State Clearinghouse number in future correspondence so that we may respond promptly.

Please note that Section 21104(c) of the California Public Resources Code states that:

> "A responsible or other public agency shall only make substantive comments regarding those activities involved in a project which are within an area of expertise of the agency or which are required to be carried out or approved by the agency. Those comments shall be supported by specific documentation."

Check the CEQA database for submitted comments for use in preparing your final environmental document: https://ceqanet.opr.ca.gov/2017081035/2 . Should you need more information or clarification of the comments, **we recommend that you contact the commenting agency directly**.

This letter acknowledges that you have complied with the State Clearinghouse review requirements for draft environmental documents, pursuant to the California Environmental Quality Act. Please contact the State Clearinghouse at (916) 445-0613 if you have any questions regarding the environmental review process.

Sincerely,

Scott Morgan
Director, State Clearinghouse

cc: Resources Agency

Responses to Comments

The following table contains the responses to the comments numbered in the letters above.

Comment Number	Comment Response
Gil Smith	
GS-1	Comment noted. Concerns regarding the project impacts on the resources referenced in the comment are addressed in the Environmental Impact Report (EIR) in Chapter 3.2 Air Quality, Chapter 3.7 Population and Housing, and Chapter 3.9 Traffic and Circulation of the EIR. The EIR also addresses impacts on nearby residents (sensitive receptors) in regard to Noise (See Chapter 3.6, EIR).
GS-2	Comment noted. CSUDH has been in communication with the City of Carson and with the County of Los Angeles in regards to the proposed Master Plan Project.
GS-3	Consistent with the CEQA Guidelines Section 15121, the EIR contains relevant information regarding the environmental impacts of the Project, potential minimization and mitigation measures of any significant impacts, and describes reasonable alternatives to the Project. Therefore, this comment is inapplicable to the EIR.
GS-4	Chapter 3.7, Population and Housing, of the EIR contains analysis regarding population growth and displacement as a result of the Project. Further, Chapter 3.9, Traffic and Circulation, provides and analysis of potential traffic impacts related to the Project. In addition, Chapter 3.8, Public Services, provides and analysis of potential impacts related to Public Services resulting from the Project.

Comment Number	Comment Response
GS-5	See response to GS-3 above.
GS-6	See response to GS-3 above.
Shirley Smith	
SS-1	Analysis of potential air quality, noise, and traffic impacts have been included in EIR in Chapter 3.2 Air Quality, Chapter 3.6 Noise, and Chapter 3.9 Traffic and Circulation, respectively. The associated technical reports that detail these analyses are included in the appendices to the EIR. Mitigation measures for each of these concerns are detailed in the respective section. Furthermore, CSUDH is committed to contributing its fair share toward needed traffic improvements consistent with the Mitigation Measures provided in Chapter 3.9, Traffic and Circulation, of the EIR.
SS-2	Chapter 3.9, Traffic and Circulation, of the EIR identifies the CEQA thresholds used to analyze traffic impacts. (See EIR, Traffic and Circulation, Page 3.9-38.) Traffic analysis methodology does not take into account vehicle thefts, fender benders and traffic accidents in the analysis of impacts.
SS-3	Comment noted. Although there is no obligation under CEQA to remedy existing conditions or deficiencies, University Drive was an intersection analyzed to determine potential impacts that may result from the project. It is included in the analysis due to its use as a major arterial for the campus. Under two scenarios that include the project conditions, the proposed project would result in significant direct impacts to two intersections along University Drive during both the AM and PM peak hours. Significant direct impacts include a worsening of the level of service (LOS) of the roadway, which takes into account such factors as roadway capacity, volume of

Comment Number	Comment Response
	vehicles on the roadway, and delays experienced by these vehicles. These project related impacts to University Drive's LOS would be mitigated for through proposed measures to improve the roadway; these are included in Table 3.9-41 in the EIR.
SS-4	Details in regard to the proposed project's impact on population growth and traffic are included in Chapter 3.7 and Chapter 3.9 of the EIR, respectively. Parking is not an impact that is required to be analyzed under CEQA.
SS-5	The analysis of traffic impacts for the Project as addressed in Chapter 3.9, Traffic and Circulation, of the EIR considered traffic from other reasonably foreseeable developments in the vicinity of the campus that may affect traffic patterns in surrounding neighborhoods. Conclusions of the significance of the cumulative impacts of the project and other reasonably foreseeable projects on specific intersections and freeway segments can be found in the tables within Chapter 3.9, Traffic and Circulation, of the EIR. Specifically, Chapter 3.9 acknowledged the potential cumulative traffic impacts based upon SCAG growth projections in the surrounding community. (See Chapter 3.9, Traffic and Circulation, Page 3.9-101.)
SS-6	Analysis of potential impacts to public services and noise from the proposed project are included in Chapter 3.8 and Chapter 3.6, respectively. Impacts to emergency vehicle access are discussed in Chapter 3.9. In regards to emergency vehicle volumes on the road, traffic analysis cannot take into consideration those specific vehicles because their volumes cannot be quantified and tied to any one development or land use. Noise from these vehicles also cannot be tied to any one development or land use due to their consideration as an intermittent and short term noise source. Analysis concerning Fire and Police protection services involves the analysis of whether the population growth resulting from the Project results in the need for construction of new facilities to maintain acceptable service ratios, response times, or other performance objectives, and whether the construction of a required new facility results in significant impacts on the physical environment. Based upon the analysis

Comment Number	Comment Response
	provided in Chapter 3.8, Public Service, of the Draft EIR impacts related to fire and police were found to be less than significant.
SS-7	Please see response to Comment SS-5 above for more details regarding the consideration of existing conditions related to traffic in the traffic analysis methodology provided in Chapter 3.9, Traffic and Circulation.
SS-8	Comment noted. CEQA does not obligate a project to correct existing deficiencies. All impacts of the project on storm water facilities are addressed in Chapter 3.8 of the EIR.
SS-9	The capacity for Southern California Edison's electricity service has been acknowledged within the existing conditions as addressed in Chapter 3.10, Utilities, of the EIR. Brownouts within the surrounding communities are considered a part of the existing conditions, and the proposed project would not contribute to worsening the existing condition. Impacts of the proposed project on electricity service has been analyzed compared to existing Southern California Edison and CSUDH provided electricity capacity and service. To alleviate demand on Southern California Edison sources, the Project provides that CSUDH will be providing its own proposed sources of electricity, ranging from photovoltaics, a new battery storage system, and a new substation. It was also acknowledged that to reduce electricity demand from the campus, projects such as the replacement of the SAC 100 building would be implemented. The campus's proposed methods of supplying electricity to the campus will be considered part of the SCE's Method of Service (MOS) study process, and has been determined to not necessitate the construction of new or expanded off-site distribution systems. Details regarding the analysis of impacts related to utility service are included in chapter 3.10, Utilities, of the EIR.
SS-10	Based on the biological resources investigations prepared in conjunction with the Project (See Appendix C), no endangered frog species or habitat were identified within the project study area. As described in Chapter 3.3,

Comment Number	Comment Response
	Biological Resources, of the EIR, a seasonal wetland on the project site has the potential to support federally-endangered vernal pool branchiopod species protected under the ESA, including Riverside fairy shrimp (Streptocephalus woottoni) and San Diego fairy shrimp (Branchinecta sandiegonensis). Although several non-listed fairy shrimp (e.g., versatile fairy shrimp [Branchinecta lindahli]) were identified during the survey efforts, no special-status species were found. Analysis of impacts of the Project have resulted in no substantial adverse effect on any candidate, sensitive, or special-status species identified in any adopted local or regional plans, policies, or regulations, or by the USFWS or CDFW — except with respect to the potential for migratory bird or burrowing owl impacts, which impacts are minimized to less-than-significant levels under mitigation measures identified. More details regarding endangered species can be found in Chapter 3.3, Biological Resources, of the EIR.
SS-11	See response to comment SS-3 above. A Traffic Management Plan would be prepared prior to construction to implement measures to minimize impacts to traffic and the community.
Department of Toxic Substances Control	
DTSC-1	The comment serves as an introduction to the comment letter. No further response is required.
DTSC-2	It was determined that hazardous materials will not result in a potentially significant impact based on the results on the Initial Study. (See Appendix A-3, Final EIR.) Additionally, Hazardous Materials are discussed briefly in Chapter 4.0 of the EIR.

Comment Number	Comment Response
DTSC-3	Comment noted. No known hazardous materials sites are present within the project area. Refer to Appendix A-3 of the Final EIR.
DTSC-4	Please refer to the response to comment DTSC-3 above. All future development within the campus would comply with all applicable State and Federal regulations relative to the treatment and handling of hazardous materials.
DTSC-5	Please refer to the responses to comments DTSC 2 through 4 above.
DTSC-6	This comment provides reference information. The comment is noted and no further response is required.
Caltrans District 7	
CT-1	The comment serves as an introduction to the letter. No further response is required.
CT-2	The comment provides information regarding nearby Caltrans facilities and summarizes information presented in the Draft EIR. No further response is required.
CT-3	The Project's traffic impact study complies with the requirements of the California Environmental Quality Act (CEQA) regarding freeway analyses in that the study area includes all Caltrans facilities that potentially would be significantly impacted by Project traffic. The freeway segments selected for analysis were those to which the

Comment Number	Comment Response
	Project would add 150 or more vehicle trips in either the AM or PM peak hour, which is the threshold cited in the comment. The 2010 Congestion Management Program document referenced in the comment provides guidance that necessarily covers a wide variety of project types. Some of the guidance, such as the consulting provision cited in the comment, is directed towards private developers and local jurisdictions. As a state agency, CSU is not expressly subject to this requirement. Nevertheless, through the Notice of Preparation (NOP) process, Caltrans was provided an opportunity to provide input on the specific locations and facilities to be studied as part of the EIR traffic analysis. The NOP was sent to Caltrans District 7 and other reviewing agencies on August 17, 2017. The accompanying cover letter read in part, "Responsible agencies must transmit their comments on the scope and content of the NOP, focusing on specific information related to their own statutory responsibility, within 30 days of receipt of the NOP from the lead agency" (emphasis is original). The NOP included notice that traffic/circulation issues would be discussed in the document, as well as contact information in case the reviewing agency wished to provide input on the scope of study. Caltrans did not submit a comment letter in response to the NOP and, as such, Caltrans neither requested that it be consulted as to the specific locations to be analyzed in the EIR, nor did it identify any such specific locations to be analyzed. We note also that other state agencies similarly noticed, such as the Department of Toxic Substances Control and the Native American Heritage Commission, did provide written comments regarding the scope of the analysis to be undertaken in the EIR. With respect to those facilities identified as significantly impacted, to the extent Caltrans can identify planned improvements to be undertaken within the Project's horizon year timeframe that would mitigate the project's

Comment Number	Comment Response
	effects on the State Highway System, CSU will support Caltrans in its efforts to obtain the necessary funding for such improvements.
CT-4	The proposed project does integrate transportation and land uses in a way that reduces VMT and GHG emissions, and also includes a TDM program to further achieve these goals. Mitigation measure TRA-55 provides for implementation of a comprehensive TDM program, requiring the campus to either implement, or continue to implement as applicable, TDM strategies to reduce the number of vehicle trips generated by students, faculty and staff. These strategies include the identification of a TDM Coordinator with primary responsibility for overseeing implementation of all TDM strategies, including maintaining and increasing CSUDH employee and student rideshare opportunities, and maintaining and increasing CSUDH employee and student transportation options, including policies and procedures to encourage employees and students to walk to campus, bike to campus, and utilize public transit. Of note, the traffic impact analysis presented in the EIR did not account for trip reductions associated with implementation of the TDM program and, therefore, the analysis overstates vehicle trip generation, thereby yielding a more conservative approach to the impact determinations. Additionally, project design features such as a pedestrian circulation plan, bicycle plan, transit plan, and parking plan will assist in reducing vehicle traffic and facilitate modes of travel alternative to single vehicle ridership. Please see Draft EIR pages 3.9-134 to 3.9-143 for additional details regarding these project design features. In addition, the Increased Student Alternative, which also has been identified as the Environmentally Superior Alternative, is proposed for adoption by the Board of Trustees. This Alternative substantially increases the amount of proposed on-campus housing available for students, faculty and staff, which would result in additional

Comment Number	Comment Response
	reduced VMT and related GHG emissions. Other project components such as proximate retail and services also would serve to reduce trip length and induce a greater level of non-motorized travel. In doing so, this Alternative would reduce the amount of VMT and associated GHG emissions generated by the project. These conclusions can be found on page 5.0-28 of the Draft EIR.
CT-5	The comment is acknowledged.
CT-6	The comment is acknowledged. The campus will continue to coordinate with local transit service agencies in the design of future transit service improvements.
CT-7	The comment is acknowledged. The campus will implement such measures on campus, as applicable, in connection with Project development. Implementation of such measures on local public streets is the responsibility of the surrounding local jurisdiction, the City of Carson. The campus will work with the City to encourage such measures be considered in the design of future roadway improvements surrounding the campus.
CT-8	The comment is acknowledged. The campus will implement such recommendations as feasible as part of the construction planning process for Project development. The CSU System already has a set of general contract conditions (CSU General Conditions) that address the three specific issues raised in the comment: First, regarding the comment that haul trucks, construction vehicles, oversized vehicles and/or large size truck trips should be limited to off peak commute periods to lessen traffic impacts to the truck routing areas – CSU General Conditions Section 36.03.c "Loading and unloading of construction materials will be scheduled so as to minimize disruptions to University activities." The University restricts arrival and departure time based on this provision. Second, regarding the comment that construction/hauling vehicles transporting materials (dirt, debris, trash, etc.) on freeway/ highway need to be secured from littering – CSU General Conditions Section 36.03.a(4)

Comment Number	Comment Response
	Construction Vehicles and Equipment. "Trucks hauling dirt from the Site shall be covered in accordance with applicable state and local requirements." Finally, regarding the comment that the Project should consider scheduling works on the weekends and after hours to help relieve traffic congestion during work day peak hours and have workers/employees carpooling to reduce trips during peak commuting hours. – CSU General Conditions Section 36.03.c "Loading and unloading of construction materials will be scheduled so as to minimize disruptions to University activities."
CT-9	The comment is acknowledged. Project construction will proceed in compliance with the Caltrans standards for roadway closures and detours. Additionally, as detailed on page 4.0-10 of the Draft EIR, the campus will comply with all local, State and federal regulations regarding water quality. Buildout of the campus also will include all necessary drainage improvements, such as storm water retention basins and bio swales. Construction activities associated with the Project would not discharge run-off onto State highway facilities.
CT-10	The comment is acknowledged. The campus will obtain all necessary encroachment and other permits from Caltrans and affected jurisdictions in conjunction with Project development.
City of Carson	
CAR-1	In response to the comment that the City of Carson is the proper permitting authority for the University Village portion of the proposed project, this assertion is incorrect. The City of Carson does not have permitting authority over the University Village portion of the project. The lead agency for the Project is the Board of Trustees for the California State University, which is the State of California acting in its higher education capacity, and the entirety of the Project is located on the CSUDH campus. As stated in Chapter 2.0, Project Description, of the EIR, the City of Carson is identified as a Responsible Agency due to the potential need for approval of

Comment Number	Comment Response
	improvements within the City right-of way, as well as new connections to the local sewer system. (See Draft EIR, page 2.0-31.) This comment also asserts that the Draft EIR impact analysis regarding the planned addition of seats in the StubHub Center ignores previous mitigation measures identified in conjunction with approval of the facility in 2001. In response, this statement is conclusory as it does not cite to any particular impacts or to the particular mitigation measures in question. In addition, neither CEQA nor the CEQA Guidelines require that the Draft EIR address and/or evaluate previously adopted mitigation measures related to prior projects. However, all previous mitigation measures for the construction and operation of the StubHub Center have been implemented as required. Further, potential impacts associated with the additional 3,000 seats are addressed throughout the EIR. The remainder of the comment asserts that there are flaws throughout the EIR. The comment serves as a general summary or introduction of subsequent comments on various issues, and in itself does not raise any specific issues, and thus no further response is required.
CAR-2	Comment noted. No substantive environmental issue has been raised. No further response is required.
CAR-3	As stated in Chapter 2.0, Project Description, of the EIR, the City of Carson is identified as a Responsible Agency due to the potential need for approval of improvements within the City right-of-way, as well as new connections to the local sewer system. (See Draft EIR, page 2.0-31.) Aside from the potential approvals identified on Page 2.0-31, the City of Carson does not have permitting authority or discretionary approval authority relating to the University Village portion of the project. In regards to the purpose of the University Village portion of the Project, it is addressed in detail in the discussion of Project Objectives in Chapter 2.0, Project Description, of the EIR. (See Draft EIR, pages 2.0-9-11.) The Project Objectives do not support a

Comment Number	Comment Response
	conclusion that the City of Carson is the permitting agency for the Project. Finally, the comment's citation to the California Constitution; Government Code section 65800; and Devita v. County of Napa (1995) 9 Cal.4th 763,782, is acknowledged; however, none of the cited authorities support the City's proposition that it has permitting and/or discretionary approval authority relating to the University Village portion of the Project as stated in the comment.
CAR-4	The comment's citation to Board of Trustees v. City of Los Angeles (1975) 49 Cal.App.3d 45 (Board of Trustees) is noted. In the Board of Trustees decision, the California Court of Appeal addressed whether a private circus conducted on property owned by CSU was required to obtain applicable circus permits from the local jurisdiction. (Id., at pp. 47-48.) The appellate court reasoned that the Board's leasing of university property to the circus was "to amuse and entertain the public" and it had "no relation to the governmental function of the university" and was thus subject to local permitting requirements for circuses. (Id., at p. 50.) Contrary to the comment's assertion, the Board of Trustees decision does not support the broadly stated proposition that "when CSUDH is engaged in revenue producing activities not solely for educational purposes, the exemption of state entities from local regulation no longer applies." In regards to the purpose of the University Village portion of the Project, it is addressed in detail in the discussion of Project Objectives in Chapter 2.0, Project Description, of the EIR. (See Draft EIR, pages 2.0-9-11.) The Project Objectives do not support a conclusion that the City of Carson is the permitting agency for the Project or that it has any discretionary approval authority in relation to the Project. The comment's statements to the contrary are unsupported.
CAR-5	The comment's statement regarding the California Court of Appeal's decision in City and County of San Francisco v. Regents of University of Cal. (2017) 11 Cal.App.5th 1107 (City of San Francisco), is noted. As stated in the comment, the California Court of Appeal concluded that the Regents and the California State University were not required to pay parking taxes the City of San Francisco attempted to impose in relation to

Comment Number	Comment Response
	parking lots operated by the universities within the City of San Francisco. Further the comment's quote of a single sentence from the City of San Francisco decision is noted. The California Supreme Court granted a petition for review and issued a decision on June 20, 2019. The Supreme Court decision does not support the City's position that it has land use approval and/or permitting authority over any portion of the project . Further, the comment's citation to City of Marina v. Board of Trustees of the California State University (2006) 39 Cal.4th 341 (City of Marina), is also noted; however, the City of Marina decision does not support the City's assertion that it has permitting or discretionary approval authority over any portion of the Project.
CAR-6	The authorities cited by the City's comments do not support the City's assertion that it has permitting and/or discretionary approval authority relating to the University Village portion of the Project as stated in the comment. In regards to the purpose of the University Village portion of the Project, it is addressed in detail in the discussion of Project Objectives in Chapter 2.0, Project Description, of the EIR. (See Draft EIR, pages 2.0-9-11.) The Project Objectives do not support a conclusion that the City of Carson is the permitting agency for the Project. Regarding the comment's statement that the Draft EIR should include measures requiring payment of "the City's newly adopted Interim Development Impact Fees (IDIF) and Citywide Community Facilities District (CfD) on the same basis as they would be applied to any other real estate developer" there is no basis for requiring such payments as mitigation, and CSU is not obligated to pay such fees as a matter of law in relation to the Project.
CAR-7	The Project includes only one change in relation to the StubHub Center stadium; namely the addition of 3,000 new seats to the facility. No other changes are proposed as compared to existing conditions and uses relating to the StubHub Center stadium facility. As a result, the Draft EIR analyzed potential impacts associated with the additional 3,000 seats, including those related to potential noise and traffic impacts as referenced in the comment. As provided in CEQA Guidelines section 15125(a), the Draft EIR relied on the existing conditions

Comment Number	Comment Response
	at the time the Notice of Preparation was published as the baseline in the analysis of potential effects on the environment resulting from the Project. To the extent the comment addresses claims that the use of the StubHub Center has changed or expanded between 2001 and the publication of the Notice of Preparation, the EIR would not be required to analyze potential impacts associated with any such changes, to the extent there were any, as they would form the existing conditions baseline to be used in the evaluation of the potential environmental effects of the Project.
CAR-8	As stated in the response to CAR-7, the Project includes only one change in relation to the StubHub Center stadium; namely the addition of 3,000 new seats to the facility. No other changes are proposed as compared to existing conditions and uses relating to the StubHub Center stadium facility. As a result, the Draft EIR analyzed potential impacts associated with the additional 3,000 seats. Because the use of the StubHub Center as venue for the NFL's Los Angeles Chargers, along with the associated game day activities, was an existing condition, it is considered as the environmental conditions baseline consistent with CEQA Guidelines section 15125(a). The comment's statements regarding the scope of the impact analysis in the "2001 FEIR" are noted, but the adequacy of the impact analysis in the 2001 FEIR is beyond the scope of the Draft EIR for this proposed Project. Regarding the comment's reference to concerns for large residential neighborhoods located adjacent to the venue, the Draft EIR adequately analyzes impacts of the Project on such residential areas, including potential noise and traffic impacts. In response to the comment that there has been "no public assessment as required by CEQA as to whether the NFL events' heightened use of public safety resources would leave sufficient public safety for the surrounding community of Carson" as stated above, the StubHub Center stadium was the venue for the NFL's Los Angeles Chargers at the time of the publication of the NOP for the Project. Therefore, the existence of an NFL team and NFL games at the venue is considered an existing condition and, as such, is part of the baseline used to analyze

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	potential impacts associated with the Project. In addition, in regards to public safety resources, CEQA requires an analysis of whether a project results in the need for new or expanded law enforcement, emergency medical, or fire facilities that result in a significant environment impact. There is no evidence that the addition of 3,000 seats in the StubHub Center stadium would result in the need for new or expanded law enforcement or fire facilities, and therefore there is no possibility of a resulting significant impact on the environment relating to such public services. It should be noted that the StubHub (Dignity Health) Center works closely with the NFL to implement all NFL-required security protocol including close coordination with University Police and the Los Angeles County Sheriff's Department.
CAR-9	In regards to public services regarding public safety, CEQA requires an analysis of whether a project results in the need for new or expanded law enforcement, emergency medical, or fire facilities that result in a significant environment impact. There is no evidence that the addition of 3,000 seats in the StubHub Center stadium would result in the need for new or expanded law enforcement or fire facilities. Regarding the potential for a terrorist or other major safety incident during an NFL event, it should be noted that the StubHub (Dignity Health) Center works closely with the NFL to implement all NFL-required security protocol including close coordination with University Police and the Los Angeles County Sheriff's Department.
CAR-10	To the extent this comment asserts that the Draft EIR impact analysis regarding the planned addition of seats in the StubHub Center should consider compliance and effectiveness of mitigation measures provided in the previous 2001 FEIR, the comment does not cite to any particular impacts or to the particular mitigation measures in question. In addition, neither CEQA nor the CEQA Guidelines require that the Draft EIR address and/or evaluate previously adopted mitigation measures related to prior projects. However, all previous mitigation

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	measures for the construction and operation of the StubHub Center have been implemented as required. Further, potential impacts associated with the additional 3,000 seats are addressed throughout the EIR.
CAR-11	The graphics provided in the Draft EIR are readable and convey the necessary information regarding the Project to support the analysis provided therein.
CAR-12	CSUDH respectfully disagrees with the comment and notes that the Draft EIR contained all information necessary to allow the City to adequately review the project's traffic-related impacts. In response to the City's February 26, 2019 request for additional information, CSUDH provided the City with a letter, dated March 19, 2019, which summarizes the trip distribution/assignment and trip generation methodologies that were utilized to conduct the traffic analysis, with specific references to the traffic technical report where additional information and explanation was available. A copy of the CSUDH March 19, 2019 letter is included in these responses to comments as Appendix A. This comment, CAR-12, serves as an introduction to more detailed comments presented below at CAR-112 and CAR-119. Please see response to comment numbers CAR-112 and CAR-119 for further discussion of the CSUDH response to the City's February inquiry, as well as additional information responsive to the comment.
CAR-13	Please see response to comment CAR-12 for information responsive to this comment, as well as responses to comments CAR-111 through CAR-127 for additional responsive information related to the comment.
CAR-14	The City asserts that the impact analysis of public services, recreation and infrastructure is inadequate. However, this statement is conclusory as it does not cite which impacts or which mitigation measures are in question. The

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	comment serves as a general summary or introduction of subsequent comments on various issues, and in itself does not raise any specific issues, thus no further response is required. Please see responses to comments CAR-97 through CAR-110 for responses to specific comments regarding public services and recreation, and responses to comments CAR-128 through CAR-129 for responses to specific comments regarding utilities.
CAR-15	CEQA requires an EIR to describe a reasonable range of alternatives to a project or to the location of a project that feasibly attains most of the project's basic objectives but avoids or substantially lessens any of the project's significant environmental impacts. Chapter 5.0, Alternatives, of the EIR satisfies this requirement. (See Draft EIR, pages 5.0-1-5.0-30.) Regarding Public Services, in particular, Chapter 5.0, Alternatives, of the Draft EIR provides an impact analysis regarding each of the alternatives analyzed (See Draft EIR, pages 5.0-10; 5.0-14; 5.0-18-19; and 5.0-27.) The assertion in the comment that the impact analysis of public services in the Alternatives Chapter is inadequate is conclusory as it does not articulate how the analysis is inadequate. The comment serves as a general summary or introduction of subsequent comments on various issues, and in itself does not raise any specific issues, thus no further response is required.
CAR-16	The analysis provided in Chapter 5.0, Alternatives, of the Draft EIR includes adequate detail for the reader to discern the differences among the alternatives. Pursuant to the CEQA Guidelines Section 15126.6., "the EIR shall include sufficient information about each alternative to allow meaningful evaluation, analysis, and comparison with the proposed project. A matrix displaying the major characteristics and significant environmental effects of each alternative may be used to summarize the comparison. If an alternative would cause one or more significant effects in addition to those that would be caused by the project as proposed, the significant effects of the alternative shall be discussed, but in less detail than the significant effects of the project as proposed. (County of Inyo v. City of Los Angeles (1981) 124 Cal.App.3d 1)." The comment that the Air Quality analysis for the Increased Student Bed Alternative is presented in the Appendix but not summarized in

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	the main body of the Draft EIR is unsupported. Instead, Chapter 5.0, Alternatives, of the Draft EIR includes a summary of the Air Quality analysis for the Increased Student Housing Alternative, which also references Appendix B.2 of the Draft EIR for further supporting technical analysis. (See Draft EIR, page 5.0-17.) Provision of supporting detail and technical analysis in the Appendix is appropriate for the Alternatives analysis. The comment includes several general assertions regarding the content of the EIR, but does not specifically cite which sections of the EIR lack adequate baseline information and regulatory framework. No further response can be provided due to the broad and non-specific nature of the comment. The comment stating that the planned on-campus resident population and student enrollment figures should be confirmed with Southern California Association of Governments (SCAG) and South Coast Air Quality Management District (SCAQMD) for consistency in the DEIR growth projections and air quality planning process is noted. Further, consistent with the Draft EIR, the campus will comply with Mitigation Measure AQ-3 to coordinate build-out projections of the Master Plan with SCAQMD once the Master Plan is adopted.
CAR-17	Comment noted. This comment serves as an introduction to subsequent comments organized by issue area. No further response is required.
CAR-18	The Draft EIR specifically provides the various elements of the Campus Master Plan will be implemented in accordance with the Campus Master Plan Guidelines (Guidelines). As detailed in Section 3.1 (page 3.1-2) of the Draft EIR, the Guidelines include both landscape and design guidelines. The Guidelines "...will direct the aesthetic character and quality of proposed development within the Core Campus and University Village." The Guidelines address such features as building materials and colors; form and massing of structures, and site furnishings, along with tree renewal and replacement, and plant palettes, and are therefore intended to inform

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	the implementation of the Master Plan. Therefore, the description of the aesthetic character of the Campus Master Plan Project provided in the Draft EIR reflects conformance with the landscape and design guidelines provided in the Guidelines. Further, as future projects are implemented in accordance with the Master Plan, conformance of such future projects with the design and landscape guidelines provided in the Guidelines will be ensured through additional analysis as required.
CAR-19	In response to the request for more detailed information regarding the proposed Project's transportation demand management (TDM) strategies and vehicle types, the TDM strategies are set forth fully in mitigation measure TRA-55, which is located in Section 3.9, Traffic and Circulation, of the EIR. The TDM strategies include the retention of a TDM coordinator to facilitate implementation of the strategies; the provision of designated employee, student and other ridesharing opportunities; and, the use of policies and procedures to incentivize the use of bicycles and other transit options (e.g., Metrolink). (See Draft EIR, pages 3.9-132 to 3.9-134.) The proposed project also includes TDM-oriented design features discussed in EIR Section 3.9; for example, numerous aspects of the vehicle circulation plan enhance non-motorized transportation opportunities by enhancing the campus' accessibility via pedestrian and bicycle modes. (See Draft EIR, pages 3.9-134 to 3.9-143.) The air quality and GHG emissions analyses do not assign an emissions reduction benefit to implementation of mitigation measure TRA-55 or the TDM-oriented design features. (See Draft EIR, page 3.5-28.) This is a conservative methodological approach that serves to over-estimate emissions and impacts from the proposed project. The strategies' benefits were not quantified due to the absence of extensive and validated literature regarding the quantified effectiveness of such strategies in the contemplated setting (e.g., existing college campus).

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	As for the vehicle types used in the air quality and GHG emissions analyses, the CalEEMod model uses the Emission Factors (EMFAC) model developed by the California Air Resources Board (CARB) to assign default vehicle mix and emission factors based on land use types, project year, and regional location of the project. The EMFAC model is developed specifically to support CARB's regulatory and air quality planning efforts to meet the Federal Highway Administration's transportation planning requirements. The CalEEMod default fleet mix was used to estimate mobile source-related emissions. (CalEEMod: The model provides a platform to calculate both construction and operational emissions from land use development projects, and is used throughout the State of California for CEQA analysis.) Because the CalEEMod, with EMFAC, assigns the default fleet mix for each land use subtype selected to represent the project description parameters; and the fleet mix covers all relevant vehicle types (e.g., light-duty, medium-duty, heavy-duty, bus; etc.), there is no reason that the default mix parameters are not appropriate for a project of this type. See Appendix B.2 of the EIR for additional information.
CAR-20	Please see Response to Comment CAR-19 above. As explained therein, The conclusion referenced by the commenter (i.e., that air quality and GHG impacts would be significant and unavoidable) is not misleading, though it is conservative and likely serves to overestimate project impacts. Section 3.5, Greenhouse Gases, of the EIR explains why and how the "approach taken and the conclusion reached rely on conservative principles." (Draft EIR, pages 3.5-28 to 3.5-29.) There is no CEQA prohibition against deploying conservative methodological parameters; and, doing so ensures that a project does not underestimate its environmental implications or fail to consider potentially feasible mitigation.
CAR-21	First, neither CEQA nor the SCAQMD require the preparation of a quantitative health risk assessment to evaluate the significance of a project's toxic air contaminant (TAC) emissions from construction-related activity.

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	Second, Section 3.2, Air Quality, of the EIR analyzes the proposed project's TAC emissions (with a particular focus on diesel particulate matter [DPM]) and concludes that such emissions would not be significant. Factors supporting this conclusion are summarized below: • Construction-related activities would not exceed the SCAQMD's particulate matter-based thresholds. The peak respirable particulate matter level is 35 pounds per day, which is well below the SCAQMD threshold of 150 pounds per day. Similarly, the peak fine particulate matter level is 16 pounds per day, which is again well below the SCAQMD threshold of 55 pounds per day. As DPM is a subset of particulate matter, the less-than-significant particulate matter emission levels are relevant to consideration of the proposed project's TAC emissions. • Construction-related activities would not be continuous, and would be spread out incrementally over an approximately 15-year period. In other words, the exposure period is not long, and ~~confirms that~~ project-related development will not occur simultaneously. • The largest quantities of DPM are emitted during the demolition, site preparation and grading phases, which constitute about 17 percent of the project's total construction schedule, lasting between two to nine months. • Mitigation measure AQ-2 requires the use of Tier 4 construction equipment, where available. If Tier 4 equipment is not available, then Tier 3 construction equipment with Best Available Control Technology (BACT) devices is required. This is the cleanest type of construction equipment available and helps ensure that project-related DPM emissions are not significant. Third, as illustrated in Appendix B of the Final EIR, which contains a copy of the USEPA's table of Nonroad Compression-Ignition Engines: Exhaust Emission Standards, the utilization of Tier 4 engines in construction equipment greater than 50 horsepower results in substantial particulate matter reductions when compared to

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	earlier engine tiers. More specifically, when measured against Tier 1 engines, the utilization of Tier 4 engines reduces particulate matter anywhere from approximately 93 percent to 96 percent for construction equipment with 50 horsepower or greater. Because particulate matter emission standards can be used as a surrogate to evaluate DPM, this evidence further substantiates that the project's DPM emissions will not be significant over the course of the project's phased and intermittent construction period.
CAR-22	On December 24, 2018, less than two months prior to the Draft EIR's release and after the technical parameters of the air quality analysis were complete, the California Supreme Court issued its decision in Sierra Club v. County of Fresno (2018) 6 Cal.5th 502 (hereinafter, the Friant Ranch decision). Of relevance to this comment, the Supreme Court held that an EIR should "relate the expected adverse air quality impacts to likely health consequences or explain in meaningful detail why it is not feasible at the time of drafting to provide such an analysis, so that the public may make informed decisions regarding the costs and benefits of the Project." (Id. at p. 510.) Here, Section 3.2, Air Quality, of the proposed project's Draft EIR set forth information regarding the health effects of air pollution. (See "Air Pollution and Potential Health Effects" discussion located on pages 3.2-3 to 3.2-7 of the Draft EIR.) Section 3.2 also provided information regarding the existing ambient air quality in the vicinity of the project site (id. at pp. 3.2-12 to 3.2-14), and concluded that project emissions would result in a significant and unavoidable exceedance of air district-based thresholds for certain criteria pollutants during construction and operation, thereby creating the potential for health effects (id. at pp. 3.2-20 to 3.2-24). In response to this comment, CSUDH solicited additional technical input and guidance from the preparer of the Draft EIR: WSP USA, Inc. (See Section 7.0, List of Preparers, of the Draft EIR.) Based on those discussions, CSUDH retained an additional air quality consultant (Ramboll US Corporation) with specialized expertise in air

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	quality modeling functions beyond those traditionally used by CEQA consultants in CEQA analysis. Ramboll is uniquely qualified to provide the requested analysis; it is the only air quality expert in the State of California known to CSUDH that has developed a strategy and has the technical and modeling capabilities for providing quantitative data in response to the Friant Ranch decision. Ramboll was tasked with the preparation of an analysis that provides additional information regarding the health effects of the proposed project's emission of criteria pollutants, considering the Friant Ranch decision. A copy of Ramboll's analysis is in Appendix B.4 of the proposed project's Final EIR and, while a summary is provided below, reference also should be made to that appendix for a fulsome description of the methodological approach taken in the analysis. In its analysis, Ramboll first used a photochemical grid model (CAMx) to estimate the incremental increase in ambient air quality concentrations as a result of project-related emissions, and then used a program (BenMAP) developed by the U.S. Environmental Protection Agency (USEPA) to estimate the resulting health effects. Ramboll's analysis focused on health effects attributable to ozone and particulate matter, as those as the pollutants used by the USEPA to evaluate the health effects of the pollutants considered in the EIR. Ramboll's analysis considers emissions of NOx and VOC as precursors to ozone and PM2.5 formation. Ramboll's analysis also addresses PM10, as the USEPA's default health effect functions in BenMAP for PM use PM2.5 as the causal PM agent; as such, the health effects of PM10 are represented using PM2.5 as a surrogate. Based on the Ramboll analysis, PM2.5-related health effects attributed to the project include asthma-related emergency room visits (4.38 incidences per year), asthma-related hospital admissions (0.38 incidences per year), cardiovascular-related hospital admissions (excepting myocardial infarctions) (1.05 incidences per year), respiratory-related hospital admissions (2.44 incidences per year), mortality (10.31 incidences per year), and

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	nonfatal acute myocardial infarctions (less than 0.53 incidences per year). Ozone-related health effects attributed to the project include respiratory-related hospital admissions (0.67 incidences per year), mortality (0.28 incidences per year), and asthma-related emergency room visits (lower than 3.38 incidences per year). As explained by Ramboll in Appendix B.4, "for all the health endpoints quantified, the number of estimated incidences is less than 0.0058% of the background health incidence (citation omitted). The 'background health incidence' is the actual incidence of health effects as measured in the local population in the absence of additional emissions from the Project. When taken into context, the small increase in incidences and the very small percent of the number of background incidences indicate that these health effects are negligible in a developed, urban environment." As explained in Appendix B.4, the project-related health effects are conservatively estimated (e.g., health effects were estimated using maximum [not average] daily emissions), and the actual effects may be zero. Further, there is a degree of uncertainty in these results. Per Ramboll, there are limitations associated with the epidemiological studies on which the estimates of health effects are based (e.g., the inability to control for other factors that may contribute to an association between criteria pollutants and mortality, such as smoking). Additionally, all simulations of physical processes, whether ambient air concentrations, or health effects from air pollution, have a level of uncertainty associated with them, due to the use of simplifying, conservative assumptions. Nonetheless, regulatory agencies, including the USEPA, have judged that, even so, the results provide sufficient information to the public to allow them to understand the health effects of increases or decreases in air pollution. Considering the conservative quantitative analysis of project-related impacts provided in the Draft EIR, and Ramboll's supplementary analysis summarized above, which supports and clarifies the Draft EIR's analytical

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	findings, recirculation of the Draft EIR is not required by CEQA Guidelines Section 15088.5. First, Ramboll's analysis has not identified a new significant impact or a substantial increase in the severity of a previously identified impact. Instead, Ramboll's analysis provides supplementary quantitative information regarding the health effects of the proposed project's significant and unavoidable air quality impacts already evaluated in the Draft EIR – information that reveals health incidences would increase at a comparatively small rate and volume, despite using conservative inputs and recognizing scientific uncertainties that likely serve to over-state the number of health-based incidences. Second, the EIR's mitigation framework for the reduction of criteria pollutants would reduce mass emissions and their health effects to the extent feasible, and the Ramboll analysis does not result in the identification of any new or considerably different mitigation options. Finally, Ramboll's analysis does not suggest that the Draft EIR was so inadequate or conclusory that meaningful public review was precluded. To the contrary, Ramboll's analysis confirms that the Draft EIR comported to standards of practice in effect at the time of its preparation. The analysis prepared by Ramboll in response to this comment and the Friant Ranch decision, while informative in the sense that it supports the Draft EIR analysis through the independent quantitative confirmation of that data, does not alter the underlying and original conclusion that the project would result in significant and unavoidable air quality impacts. (1) Ramboll also is working with the Sacramento Metropolitan Air Quality Management District (SMAQMD) to develop technical guidance responsive to the Friant Ranch decision; SMAQMD's interim guidance is available at http://www.airquality.org/LandUseTransportation/Documents/FriantInterimRecommendation.pdf; for ease of reference, a copy of the interim guidance is included in Appendix B.5 of the Final EIR.

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CAR-23	The comment states that no thresholds were provided in Section 3.5, Greenhouse Gases, of the Draft EIR as a "reference" for the conclusion that the proposed project's GHG emissions are significant. However, page 3.5-24 of the Draft EIR identified the thresholds utilized in the analysis, as excerpted below: **Significance Thresholds** The analysis provided in this section evaluates the significance of the proposed project's GHG emissions by reference to the following questions from Section VII, Greenhouse Gas Emissions, of Appendix G of the CEQA Guidelines: **Threshold 1:** Would the project generate GHG emissions, either directly or indirectly, that may have a significant impact on the environment? **Threshold 2:** Would the project conflict with an applicable plan, policy or regulation adopted for the purpose of reducing the emissions of GHGs? Draft EIR Section 3.5 also states that reference was made to CEQA Guidelines Section 15064.4, titled "Determining the Significance of Impacts from Greenhouse Gas Emissions," when evaluating the significance of the proposed project's GHG emissions. The approach taken in Section 3.5, both with respect to the selection of the thresholds and the application of same, is consistent with CEQA Guidelines Section 15064, which recognizes that "[a]n ironclad definition of significant effect is not always possible." CEQA Guidelines Section 15064.7 echoes this principle by providing

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	that thresholds can be quantitative, qualitative, or performance level-based. Here, use of the qualitative Appendix G checklist questions is appropriate as there is no scientific or regulatory consensus regarding what particular quantity of metric tons of carbon dioxide equivalents is significant in the context of an environmental evaluation for a single project, particularly as the issue of climate change is experienced at the global level and the result of global action.
CAR-24	Please see Response to Comment CAR-19, which addresses the portion of the comment pertaining to the EIR's treatment of the TDM strategies. As for the EIR's assumption that all new square footage is new and additional, even though some of the square footage is associated with redevelopment efforts (i.e., the replacement of existing campus facilities with modernized facilities), the commenter recognizes that this is a conservative assumption. As described in the EIR, the project would "demolish approximately 171,500 square feet of existing academic, administrative and support buildings, and replace those buildings with approximately 1,256,600 square feet of new buildings with the same or similar purposes and function." (Draft EIR, page 3.5-16.) Similarly, the proposed project "would demolish approximately 165,300 square feet of existing student housing, replacing such existing development with 635,300 square feet of new student housing opportunities." (Ibid.; see also EIR, page 3.5-22.) This conservative approach (i.e., to assume that all building square footage is new and additional) was taken because CalEEMod is not structured to readily estimate emissions from existing buildings constructed pursuant to long superseded building code standards. Indeed, in order to have estimated operational emissions from the existing buildings proposed for demolition, detailed information regarding the electricity, natural gas, and water consumption, and solid waste generation, would need to be gathered for each existing building proposed for demolition. This type of data often can be difficult to collect.

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	As such, a methodological approach was used that did not capture the incremental delta between the existing development emissions and proposed development emissions, but instead assumed all emissions essentially were an increase over a zero emissions baseline. As discussed in Response to Comment CAR-20, this is conservative and ensures that a project does not underestimate its environmental implications or fail to consider potentially feasible mitigation. In other words, this approach ensures that the "actual emissions" referenced by the commenter likely will be lower (not higher) than those estimated in the EIR.
CAR-25	Please see Response to Comment CAR-19 above for information regarding the vehicle fleet mix parameters used in the emissions modeling. As explained therein, CalEEMod default fleet mixes were used for each of the land use subtypes associated with the proposed project. EIR Appendix B.2 illustrates that a very small percentage of the fleet mix is associated with heavy-duty trucks and buses in the operational phase, with most of the fleet mix assigned to the light-duty vehicle category.
CAR-26	The California State University (CSU) is the State of California acting in its higher education capacity. As such, CSU and its campus CSUDH, are not subject to local planning regulations or ordinances. Therefore, the Draft EIR is not required to address local regulations such as the referenced City Tree Preservation and Protection ordinance. The EIR does, however, address the presence of existing trees that provide perching and nesting habitat (Page 3.3-6) and states the requirement that all developments must comply with CEQA and mitigate for impacts to biological resources (Page 3.36-18). Because the Draft EIR is a Program EIR with a project build-out horizon of 2035, and because the precise design and subsequent impacts of the specific components of the Master Plan are not entirely defined at this time, subsequent component-specific environmental approvals will specify appropriate tree management parameters.

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CAR-27	The Draft EIR has been revised to include these references sections. Code Section 3503 and 3503.5 were added to the regulatory setting narrative under the Wildlife heading.
CAR-28	As stated in the Draft EIR, the wetland delineation concluded that the northern seasonal wetland is isolated from other waters and thus does not likely qualify as a "jurisdictional" wetland under the Clean Water Act. The Draft EIR has been revised to clarify that the ultimate determination of "jurisdiction" rests with the U.S. Army Corps of Engineers ("Corps"), which will examine this issue as part of its Section 404 review of the Project. Because the Corps may, in fact, determine that the seasonal wetland is jurisdictional, the Draft EIR includes a mitigation measure to address that contingency – i.e., BIO-4A. The text of the Final EIR has been revised to better clarify these points. As to the text of BIO-4A, the prefatory information at the beginning of the mitigation measure provides important context that assists the reader in understanding the conditions under which the mitigation measure applies. Note also that due to the 20-year buildout horizon of the Master Plan, the mitigation measures in Section 3.3 establish performance criteria with which future development on the campus must comply, including: (1) avoidance; (2) consultation with the appropriate regulatory agencies (including USFWS) and acquisition of all permits necessary for impacts to wetlands; and (3) minimum compensatory mitigation requirements for regulated waters. The Draft EIR has been revised to clarify in Mitigation Measures BIO-4A and BIO-4B the conditions and circumstances under which consultation with the USFWS would occur either via the Section 7 or Section 10 process. During consultation, the USWFS would make the ultimate determination concerning the treatment of federally-listed fairy shrimp species. As stated in the EIR on page 3.3-9, protocol surveys are not required to establish exiting conditions or form the basis of the impact analysis under CEQA.

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CAR-29	The commenter's suggested revisions to the sentence structure of the referenced paragraph would not alter the intent of the mitigation or the obligation for compliance with the mitigation measures; therefore, no further response is required. The mitigation measures in Section 3.3 of the EIR apply to future development on campus at the time projects are proposed; such is indicated in the Mitigation Measures. Pursuant to standard CSU process, future development projects are reviewed against Master Plan documents including the Program EIR and MMRP and consistency findings are required. Applicable mitigation measures from the Program EIR MMRP are identified during this process.
CAR-30	This comment is acknowledged. Only one architectural resource had been previously identified as potentially historically significant or eligible for listing on the CRHR or NRHP, the 7-11 Velodrome (Bonner, 2000) which has since been demolished. As such, a general discussion of historic resources was prepared by cultural resources specialists meeting the Secretary of the Interior's Professional Qualifications Standards as part of the cultural and historic records search during preparation of the Cultural Resources section of the EIR.
CAR-31	Criterion G has been added to the Appendix, Page 14.
CAR-32	This comment is acknowledged. Tribal Cultural Resources are addressed in Section XVIII of CEQA Guidelines Appendix G, the "Environmental Checklist Form." Chapter 3.4 of the Draft EIR explicitly relies upon the Tribal Cultural Resources provisions in Appendix G in evaluating potential impacts of the CSUDH 2018 Campus Master Plan on Tribal Cultural Resources on pages 3.4-30 through 3.4-32.

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CAR-33	This comment is acknowledged. Paleontological resources are explicitly addressed by CEQA, specifically in Section VII(f) of CEQA Guidelines Appendix G, the "Environmental Checklist Form," which addresses the potential for adverse impacts to "unique paleontological resource[s] or site[s] or unique geological feature[s]," and in Public Resources Code Sections 5097.5 and 30244 which addresses the potential for adverse impacts to paleontological resources and "vertebrate paleontological site(s), including footprints." Chapter 3.4 of the Draft EIR explicitly relies upon this Appendix G provision in evaluating potential impacts of the CSUDH 2018 Campus Master Plan project on paleontological resources. Further, the text of the Chapter 3.4, Cultural Resources, of the Final EIR has been revised to include a separate section to address State Regulations applicable to Paleontological Resources, which includes reference to the CEQA guidelines and the Public Resources Code. (See page 3.4-5).
CAR-34	The California State University (CSU) is the State of California acting in its higher education capacity. As such, CSU and its campus CSUDH, are not subject to local planning regulations or ordinances. In addition, neither the City of Carson's General Plan nor local ordinances contain requirements for consideration or management applicable to cultural resources.
CAR-35	Page 3.4.2 of Chapter 3.4 of the Draft EIR includes a listing of eligibility criteria for the National Register of Historic Places (NRHP), which includes, among other things, the text of Criterion D. Following the text of Criterion D is additional text, which is intended to elaborate and explain this particular criterion. In response to this comment, the text of the Final EIR has been revised at Page 3.4.2 to separate the text of Criterion D from the subsequent explanatory text.
CAR-36	The Draft EIR provides a summary of the applicable CEQA provisions regarding historical resources on Pages 3.4-3-4. The referenced summary includes a discussion of the provisions of CEQA Guidelines section 15064.5

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	as mentioned in the comment. The referenced provisions were considered and relied upon in evaluating potential impacts to historic resources relating to the Project. The Draft EIR does not have any "missing steps" in connection with its evaluation of potential impacts on historical resources as asserted in this comment.
CAR-37	This comment is acknowledged and the text (Page 3.4-5) has been updated to include clarification that archaeological resources may include 'historical resources' or 'unique archaeological resources.'
CAR-38	It is acknowledged that the text of California Assembly Bill 52 (AB 52) utilizes the term "California Native American tribes." This references text Page 3.4-5, which uses the term "California Native American groups" in the context of the introduction of AB 52 but which is not a direct citation from AB 52, and therefore, is adequate and appropriate in its current form.
CAR-39	It is acknowledged that under California State Assembly Bill 52, only tribes who have requested to be notified by the lead agency of a project within the tribe's geographical area and who request consultation within 30 days of receipt of the consultation letter must be included during consultation. This clarification has been included in the Final EIR.
CAR-40	Comment noted. Appendix D, Attachment B includes all documentation of Native American Tribal Coordination including the list of tribes culturally affiliated with the project area from the NAHC. "Tongva" was inadvertently omitted from Mr. Morales' tribal affiliation as listed on Page 3.4-18. This correction has been made in the Final EIR.
CAR-41	Consistent with the discussion at Pages 3.4-19-20 of the Draft EIR, the analysis relied upon previous archeological resource surveys, which provide reliable and useful information for purposes of evaluation of the

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	project, and are not considered out of date. Further, Page 3.4-32 of the Draft EIR specifically addresses the portions of the campus which have not previously been developed (particularly the eastern portions of campus which have not been surveyed previously and where the majority of the planned development is located.) Because the Draft EIR is a Program EIR with a substantial project build-out horizon (2035), and because the precise timing of the specific components of the Master Plan is not defined at this time, surveys of specified areas of the campus will be required in accordance with mitigation specified in the Draft EIR. Specifically, Mitigation Measure CUL-2 requires that site-specific surveys be conducted "prior to development or construction of new facilities in portions of the campus which have not previously been developed (particularly the eastern portions of campus which have not been surveyed previously and where the majority of the planned development is located)." Refer to Page 3.4-32 of the Draft EIR. Yes, a cultural built resources report was prepared. This report can be accessed in Appendix D.2 of the EIR.
CAR-42	Appendix D.1 of the Draft EIR comprises the Results of a Cultural Resources Analysis for the California State University Dominguez Hills 2018 Master Plan, Los Angeles County, California (October 11, 2017). As detailed on Page 5 of the Appendix, the remaining study consisted of an overview of the general vicinity.
CAR-43	Appendix D.1 of the Draft EIR comprises the Results of a Cultural Resources Analysis for the California State University Dominguez Hills 2018 Master Plan, Los Angeles County, California (October 11, 2017). As detailed on page 6 of the Appendix, the two previously recorded resources within 0.5-mile of the API include: 1) the "7-Eleven Olympic Velodrome" (P-19-188479) and 2) a pre-historic lithic scatter (P-19-000794).
CAR-44	The 2000 study incorporated both archaeological and built environment resources. At the time of the study, the 7-Eleven Olympic Velodrome (see page 3.4-20) was noted but not identified as a historic built resource. The

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	Velodrome was recorded and evaluated that same year by another party. Historic cultural resources may refer to archaeological historic and prehistoric resources, as well as the historic built environment.
CAR-45	Regarding the other 6 studies referenced but not addressed in detail in the Draft EIR, 2 of the studies were no longer considered adequate due to age (1977 and 1980); 2 studies incorporate only the outer boundaries of the project area; and the remaining 2 studies did not include a field survey.
CAR-46	This comment is acknowledged. The language in the referenced paragraph failed to specify that architectural historians conducted research specific to the built environment. This clarification has been included, and further expanded to discuss eligibility for listing, in the Final EIR and states "To determine the presence of historical resources on the CSUDH campus specific to the built environment architectural historians completed research, analyzed historic photographs and maps, and reviewed prior documentation on the campus buildings to identify historical built resources and determine whether analyzed sources indicated those built resources may be eligible for listing on the NRHP or CRHR per the criteria."
CAR-46B	Appendix D.2, Built Resources Report (page 8) indicates that, "Within the CSUDH campus, two built historical resources require evaluation (Figure 3). The Small College Complex is more than fifty years of age and is evaluated within this document. The Leo F. Cain Library is approximately forty-five years of age, but was identified in the 2009 Master Plan as potentially eligible for the CRHR as a resource that has achieved significance within the past fifty years of age because of its architectural merit. The Leo F. Cain Library is also evaluated within this document to confirm that prior assessment, as CEQA requires updates on CRHR evaluations."

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	Further, Appendix D.2. (Page 16) states that: "qualified architectural historians examined proposed actions contained in the 2018 Master Plan and reviewed all buildings potentially impacted by proposed relocation, alteration, or replacement. These properties are included in Table 1. Campus Facilities Potentially Planned for Alteration, Replacement or Relocation. While none of these additional buildings listed below are more than fifty years of age and were not previously determined to be a potentially significant historical resource for purposes of CEQA, the architectural historians evaluated the buildings to determine if any may also have the exceptional design merit exhibited at the library." Based upon the evaluation in Pages 16-20 of Appendix D.2., the historians concluded "these buildings are not architecturally significant and do not warrant further evaluation at this time." (Draft EIR, Appendix D.2., Page 20.) The first paragraph on Page 3.4-25 of the Draft EIR accurately describes the scope of analysis in the Built Resources Report (Appendix D.2) as summarized herein, and does not contradict any statements on Page 3.4-21 of the Draft EIR as suggested in the comment.
CAR-46C	The comment suggests additional evaluation should be performed to determine whether unspecified buildings are potentially eligible as contributors to a historic district. It is essential to note the Small College Complex no longer exists. In accordance with the approved 2010 Campus Master Plan, and subsequent approvals, the Small College Complex was demolished after the Draft EIR for 2018 Campus Master Plan was circulated for public review. More specifically, on June 19, 2018, the Board of Trustees (BOT) for the California State University approved the Innovation and Instruction Building project for the Dominguez Hills Campus. The BOT made findings that the project was consistent with the Final Environmental Impact Report for the CSU Dominguez Hills Master Plan that was approved by the BOT in May 2010. A minor master plan revision relocating the site of the future building was approved under delegated authority to the chancellor. The Innovation and Instruction Building project proposed "to design and construct the Innovation and Instruction Building (#151) to provide general-purpose classrooms and faculty offices, as well as house the College of Business Administration and Public Policy (CBAPP)...As part of the scope of this project, the Small College Complex, temporary buildings

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	constructed in 1965, will be demolished." The demolition of the Small College Complex was completed in May 2019, in conformance with the adopted 2010 Master Plan and subsequent minor revision. Therefore, at this time, other than the Cain Library, no buildings greater than 50 years of age remain. All other structures are considered support structures and would not contribute to a potential historic district under the applicable criteria. For these reasons, no further evaluation of the existence of a potential historic district is warranted. Further, as stated in the response to Comment CAR- 46B, Appendix D.2. (Page 16) states that: "qualified architectural historians examined proposed actions contained in the 2018 Master Plan and reviewed all buildings potentially impacted by proposed relocation, alteration, or replacement. These properties are included in Table 1. Campus Facilities Potentially Planned for Alteration, Replacement or Relocation. While none of these additional buildings listed below are more than fifty years of age and were not previously determined to be a potentially significant historical resource for purposes of CEQA, the architectural historians evaluated the buildings to determine if any may also have the exceptional design merit exhibited at the library." Based upon the evaluation in Pages 16-20 of Appendix D.2., the historians concluded "these buildings are not architecturally significant and do not warrant further evaluation at this time." (Draft EIR, Appendix D.2., Page 20.) Finally, there is no evidence that any of the buildings potentially affected by the actions of the 2018 Master Plan (as addressed in the Built Resources Report (Appendix D.2., Pages 16-20) would contribute to a historic district. Of those structures identified as being potentially affected by the Campus Master Plan, 2 were built in the 1970s, one in the 1980s, three in the 1990s, and three in the 2000s. Given that California Code of Regulations section 4852(a)(5) provides, in part, that "Historic Districts" are "unified geographic entities which contain a concentration of historic buildings, structures, objects, or sites united historically, culturally, or architecturally" there is no evidence to support the need for further evaluation beyond the analysis discussed above as provided in the Built Resources Report (Appendix D.2.) In short, the Draft EIR provides an appropriate analysis of the

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	built resources on campus to support the conclusion that the Campus Master Plan will not result in any significant impacts to any historic resources.
CAR-46D	The Draft EIR does not provide the implication suggested in the comment. Notwithstanding the lack of any implications as suggested in the comment, there is no evidence that any of the buildings potentially affected by the actions of the 2018 Master Plan (as addressed in the Built Resources Report (Appendix D.2., Pages 16-20) would contribute to an historic district. Aside from the Small College Complex and the Cain Library, of those structures identified as being potentially affected by the Campus Master Plan, 2 were built in the 1970s, one in the 1980s, three in the 1990s, and three in the 2000s. Public Resources Code section 5020.1(h) defines "historic district" as "a definable unified geographic entity that possesses a significant concentration, linkage or concentration of sites, buildings, structures, or objects united historically or aesthetically by plan or physical development. In addition, California Code of Regulations section 4852(a)(5) provides, in part, that "Historic Districts" are "unified geographic entities which contain a concentration of historic buildings, structures, objects, or sites united historically, culturally, or architecturally" there is no evidence to support the need for further evaluation beyond the analysis discussed above as provided in the Built Resources Report (Appendix D.2.) In short, the Draft EIR provides an appropriate analysis of the built resources on campus to support the conclusion that the Campus Master Plan will not result in any significant impacts to any historic resources, including any historic district.
CAR-47	The comment's reference to NRHP Bulletin #15 is noted. In response, The Draft EIR evaluates potential impacts to historic resources by reference to CEQA Guidelines Appendix G, which provides that a significant impact in historic resources occurs if "the project would cause a substantial adverse change in the significance of a historical resource pursuant to § 15064.5." (Draft EIR, Chapter 3.4, Cultural Resources, at Page 3.4-26.) The Draft EIR addresses the provisions of CEQA Guidelines section 15064.5 in detail at Pages 3.4-3-4. As stated

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	in the Draft EIR, the CEQA Guidelines section 15064.5(a) articulates the various requirements for a "historic resource." Because there are no listed historic resources in accordance with Section 15064.5(a)(1) and (2), the Draft EIR analyzes the existence of any potential historic resources in accordance with Section 15064.5(a)(3), which provides: "[g]enerally a resource shall be considered by the lead agency to be "historically significant if the resource meets the criteria for listing on the California Register of Historical Resources (Pub.Res.Code §5024.1, Title 14 CCR, Section 4852) including the following: [Criteria A-D omitted here.].)" Public Resources Code section 5024.1(e)(2) provides that historic resources may include "Historical resources contributing to the significance of an historic district under criteria adopted by the commission." Public Resources Code section 5020.1(h) defines "historic district" as "a definable unified geographic entity that possesses a significant concentration, linkage or concentration of sites, buildings, structures, or objects united historically or aesthetically by plan or physical development. Further, California Code of Regulations section 4852(a)(5) provides, in part, that "Historic Districts" are "unified geographic entities which contain a concentration of historic buildings, structures, objects, or sites united historically, culturally, or architecturally." Based upon the applicable criteria, there is no evidence to support the need for further evaluation beyond the analysis discussed above as provided in the Draft EIR and the Built Resources Report (Appendix D.2.) Based upon the applicable criteria, the Draft EIR provides an appropriate analysis of the built resources on campus to support the conclusion that the Campus Master Plan will not result in any significant impacts to any historic resources, including any potential historic district.
CAR-48	The CSUDH Built Resources Report (DEIR Appendix D.2.) provides a discussion of the historical context for the CSUDH campus at pages 3-6. This historical context statement in the Built Resources Report includes sufficient detail to support the evaluation of potential historic resources in connection with the CSUDH Master

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	Plan DEIR.. The text of the Final EIR has also been revised to include the same historic context discussion included in Appendix D.2. for clarity and completeness.
CAR-49	This comment specifically addresses the analysis of the Small College Complex as addressed in the Draft EIR and the Built Resources Report (Appendix D.2.). In response, and as previously noted in response to Comment CAR-46D above, the Small College Complex no longer exists. In accordance with the approved 2010 Campus Master Plan, the Small College Complex was demolished after the Draft EIR for 2018 Campus Master Plan was circulated for public review. More specifically, on June 19, 2018, the Board of Trustees (BOT) for the California State University approved the Innovation and Instruction Building project for the Dominguez Hills Campus. The BOT made findings that the project was consistent with the Final Environmental Impact Report for the CSU Dominguez Hills Master Plan that was approved by the BOT in May 2010. The Innovation and Instruction Building project proposed "to design and construct the Innovation and Instruction Building (#151) to provide general-purpose classrooms and faculty offices, as well as house the College of Business Administration and Public Policy (CBAPP)...As part of the scope of this project, the Small College Complex, temporary buildings constructed in 1965, will be demolished." Because demolition of the Small College Complex has been completed in conformance with the adopted 2010 Master Plan, no further evaluation regarding the Small Complex is warranted.
CAR-50	The Built Resources Report (DEIR Appendix D.2.) provides a discussion of the historical context for the CSUDH campus at pages 3-6. The discussion of historic context in the Built Resources Report includes details pertaining to the campus and the racial factors that affected the decision-making process regarding locating the campus in its present location. The level of detail provided in this regard is appropriate and sufficient to support the evaluation of potential historic resources in connection with the CSUDH Campus Master Plan DEIR. Further, the text of the Final EIR has been revised to include the same historic context discussion included in

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	Appendix D.2. for clarity and completeness. Although the City's comment suggests there is some evidence to suggest the CSUDH campus may be significant under CRHR, Criterion 1 because it was created to serve racial minorities, the City does not identify evidence supporting the suggestion that the entire campus is associated with events that have made a significant contribution to the broad pattern of California's history and cultural heritage. Furthermore, additional detailed documentation and analyses would be better suited for a NRHP Multiple Property Submission/Documentation, California Thematic Nomination, or statewide historic context statement rather than a campus master plan DEIR.
CAR-51	Archival and online research completed for the historic context section of the Draft EIR as well as specific research on individual buildings did not identify persons that would be significant under CRHR Criterion 2. Likewise, no stakeholders or other participants identified potentially significant individuals during meetings conducted as part of the 2018 Master Plan development as part of the 2018 Master Plan development or as part of ongoing planning consultation.
CAR-52	CEQA and the CEQA Guidelines do not require that evaluation of paleontological resources is addressed in a Geology and Soils section as suggested in this comment. Further the Draft EIR does not include a Geology section based upon the Notice of Preparation issued in connection with the Project. For these reasons the Draft EIR properly included a discussion and evaluation of potential impacts of the Project on paleontological resources within the Cultural Resources section. The potential for the presence of paleontological resources is based on underlying geologic formations and therefore has not changed since adoption of the 2009 Master Plan. No revisions to the Draft EIR are required.

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	As detailed in Section 3F of the 2009 Master Plan EIR (incorporated by reference into the Draft EIR (2019): "According to the LACM records, the proposed project area contains surficial deposits of older Quaternary alluvium. The vertebrate fossil locality, LACM 1643, situated either within the campus or on the southern boundary and east of Avalon Boulevard, approximately at the intersection of University Drive and Annalee Avenue, produced a fossil mammoth skeleton at a depth of 8 to 10 feet below the surface. The next closest vertebrate fossil locality in these older Quaternary deposits is LACM 3382, situated northeast of the proposed project area. This site is on the northeast side of the Dominguez Hills, east of Wilmington Avenue and just north of Artesia Boulevard. It produced another specimen of fossil mammoth, Mammuthus, at a depth of only 5 feet below the surface (McLeod pers. comm.)." The potential for the presence of paleontological resources is based on underlying geologic formations and therefore has not changed since adoption of the 2009 Master Plan. No revisions to the Draft EIR are required. As detailed in Section 3F of the 2009 Master Plan EIR (incorporated by reference into the Draft EIR (2019): "According to the LACM records, the proposed project area contains surficial deposits of older Quaternary alluvium. The vertebrate fossil locality, LACM 1643, situated either within the campus or on the southern boundary and east of Avalon Boulevard, approximately at the intersection of University Drive and Annalee Avenue, produced a fossil mammoth skeleton at a depth of 8 to 10 feet below the surface. The next closest vertebrate fossil locality in these older Quaternary deposits is LACM 3382, situated northeast of the proposed project area. This site is on the northeast side of the Dominguez Hills, east of Wilmington Avenue and just north of Artesia Boulevard. It produced another specimen of fossil mammoth, Mammuthus, at a depth of only 5 feet below the surface (McLeod pers. comm.)."

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CAR-53	Please see response to CAR-49.
CAR-54	This comment references a statement from the September 2009 EIR for the 2010 Campus Master Plan, which concluded the planned removal of the Small College Complex did not result in any significant impact to a historic resource as a result of the planned removal and replacement of the Small College Complex with new planned facilities. In accordance with the approved 2010 Campus Master Plan, and subsequent approvals, the Small College Complex was demolished after the DEIR for 2018 Campus Master Plan was circulated for public review.
CAR-55	This comment specifically addresses the analysis of the Leo F. Cain Library in the Draft EIR and the Built Resources Report. (Appendix D.2.) The Leo F. Cain Library was previously determined eligible in connection with the 2009 Final EIR for the 2010 Campus Master Plan. Additional documentation and analysis is not required to confirm this status. Further, the 2018 Master Plan does not include new planned facilities directly adjacent to the Leo F. Cain Library and there will be no significant impact to the library resulting from the 2018 Master Plan. Additionally, the library's immediate setting was altered in the 1980s and again in 2010 due to the construction of additional facilities adjacent to the library. The library's setting does not retain integrity and will not be impacted by any activities proposed in the 2018 Master Plan.
CAR-56	Consistent with the discussion at Pages 3.4-19-20 of the Draft EIR, the analysis relied upon previous archeological resource surveys, which provide reliable and useful information for purposes of evaluation of the project. Further, Page 3.4-32 of the Draft EIR specifically addresses the portions of the campus which have not previously been developed (particularly the eastern portions of campus which have not been surveyed previously and where the majority of the planned development is located.) Because the Draft EIR is a Program EIR with a substantial project build-out horizon (2035), and because the precise timing of the specific components of the

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	Master Plan is not defined at this time, surveys of specified areas of the campus will be required in accordance with mitigation specified in the Draft EIR. Specifically, Mitigation Measure CUL-2 requires that site-specific surveys be conducted "prior to development or construction of new facilities in portions of the campus which have not previously been developed (particularly the eastern portions of campus which have not been surveyed previously and where the majority of the planned development is located)." Refer to Page 3.4-32 of the Draft EIR.
CAR-57	Consistent with the discussion at Pages 3.4-19-20 of the Draft EIR, the analysis relied upon previous archeological resource surveys, which provide reliable and useful information for purposes of evaluation of the project. Further, Page 3.4-32 of the Draft EIR specifically addresses the portions of the campus which have not previously been developed (particularly the eastern portions of campus which have not been surveyed previously and where the majority of the planned development is located.) Because the Draft EIR is a Program EIR with a substantial project build-out horizon (2035), and because the precise timing of the specific components of the Master Plan is not defined at this time, surveys of specified areas of the campus will be required in accordance with mitigation specified in the Draft EIR. Specifically, Mitigation Measure CUL-2 requires that site-specific surveys be conducted "prior to development or construction of new facilities in portions of the campus which have not previously been developed (particularly the eastern portions of campus which have not been surveyed previously and where the majority of the planned development is located)." Refer to Page 3.4-32 of the Draft EIR.
CAR-58	With very little exception, the entirety of the campus has been subject to past ground disturbance of native soils. Consistent with the discussion at Pages 3.4-19-20 of the Draft EIR, the analysis relied upon previous archeological resource surveys, which provide reliable and useful information for purposes of evaluation of the project. Further, Page 3.4-32 of the Draft EIR specifically addresses the portions of the campus which have not

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	previously been developed (particularly the eastern portions of campus which have not been surveyed previously and where the majority of the planned development is located.) Because the Draft EIR is a Program EIR with a substantial project build-out horizon (2035), and because the precise timing of the specific components of the Master Plan is not defined at this time, surveys of specified areas of the campus will be required in accordance with mitigation specified in the Draft EIR. Specifically, Mitigation Measure CUL-2 requires that site-specific surveys be conducted "prior to development or construction of new facilities in portions of the campus which have not previously been developed (particularly the eastern portions of campus which have not been surveyed previously and where the majority of the planned development is located)." Refer to Page 3.4-32 of the Draft EIR.
CAR-59	With very little exception, the entirety of the campus has been subject to past ground disturbance of native soils. Consistent with the discussion at Pages 3.4-19-20 of the Draft EIR, the analysis relied upon previous archeological resource surveys, which provide reliable and useful information for purposes of evaluation of the project. Further, Page 3.4-32 of the Draft EIR specifically addresses the portions of the campus which have not previously been developed (particularly the eastern portions of campus which have not been surveyed previously and where the majority of the planned development is located.) Because the Draft EIR is a Program EIR with a substantial project build-out horizon (2035), and because the precise timing of the specific components of the Master Plan is not defined at this time, surveys of specified areas of the campus will be required in accordance with mitigation specified in the Draft EIR. Specifically, Mitigation Measure CUL-2 requires that site-specific surveys be conducted "prior to development or construction of new facilities in portions of the campus which have not previously been developed (particularly the eastern portions of campus which have not been surveyed previously and where the majority of the planned development is located)." Refer to Page 3.4-32 of the Draft EIR.

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CAR-60	Edits made to the FEIR have removed reference to 5-feet as a determination level for sensitivity. CUL-7 (Page 3.4-35) requires individual Paleontological Resource Management Plans be produced for each individual project undertaken. These plans will identify specific sensitivity based on the project description.
CAR-61	The project is defined by the EIR in section 2.0 Project Description (2.0-1) as the adoption and implementation of the 2018 Campus Master Plan. As such, the implementation of the Master Plan will be undertaken throughout various activities over an extended time horizon, and will necessarily involve utilization of contractors who will, as part of their contract with CSUDH, provide qualified environmental consultant teams to carry out environmental mitigation measures as required by the Draft EIR. Environmental team qualifications will be a determining factor during the review of contractor qualifications and the selection of contractors. Ultimately, CSUDH will be responsible for selection of contractors and environmental team consultants, including the Qualified Archeologist identified in Mitigation Measure CUL-2.
CAR-62	Page 3.4-32 CUL-2 requires survey of undeveloped areas. The results of those surveys will inform how a project progresses through design. The qualified archaeologist retained per CUL-1 will evaluate archaeological resources using the regulatory guidelines put forth by CEQA, and detailed on pages 3.4-3 through 3.4-6 to determine the potential significance of the resource and eligibility for listing on the California Register of Historical Resources. As described in CUL-3 and CUL-4, if a resource cannot be avoided, additional Phase II evaluation shall occur, and if warranted, Phase III Data Recovery (archaeological excavation), which would effectively reduce the impact to the resource to a less than significant impact. CSUDH will be responsible for ensuring compliance with the referenced mitigation measures.
CAR-63	Consistent with the discussion at Pages 3.4-19-20 of the Draft EIR, the analysis relied upon previous archeological resource surveys, which provide reliable and useful information for purposes of evaluation of the

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	project. Further, Page 3.4-32 of the Draft EIR specifically addresses the portions of the campus which have not previously been developed (particularly the eastern portions of campus which have not been surveyed previously and where the majority of the planned development is located.) Because the Draft EIR is a Program EIR with a substantial project build-out horizon (2035), and because the precise timing of the specific components of the Master Plan is not defined at this time, surveys of specified areas of the campus will be required in accordance with mitigation specified in the Draft EIR. Specifically, Mitigation Measure CUL-2 requires that site-specific surveys be conducted "prior to development or construction of new facilities in portions of the campus which have not previously been developed (particularly the eastern portions of campus which have not been surveyed previously and where the majority of the planned development is located)." Refer to Page 3.4-32 of the Draft EIR. Implementation of CUL-2 surveys provide a good faith effort in determining the presence of, and conducting evaluations on, cultural resources prior to ground disturbing activities. Further, CUL-4 requires Phase II and Phase III cultural resources investigations and avoidance if feasible without specifying known archaeological resources nor excluding known archaeological resources; thus the intent of the Draft EIR is that known archaeological resources will be subject to the same treatment as unknown resources.
CAR-64	CUL-6 (page 3.4-33) provides a mechanism to allow Native American representatives the opportunity to provide input on significance, treatment, and disposition of prehistoric or Native American cultural resources through continued consultation between Native American groups and CSUDH. It is appropriate to separate discussion of that mechanism into two mitigation measures, as CUL-4 is only intended to address cultural resources from an academic perspective whereas CUL-6 is intended to allow for an equal mechanism, however with additional concern for nuances specific to Native American consultation.
CAR-65	The Draft EIR has been revised to include enforceable wording using 'shall' in lieu of 'should'. CUL-4 requires the preparation of a detailed archaeological treatment plan by a qualified archaeologist. Due to the variety of

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	potential archaeological finds and appropriate treatments, it is not practical to describe each potential process for the disposition of artifacts within a mitigation measure.
CAR-66	The Draft EIR has been revised to clarify that data recovery shall not be required if the data potential is exhausted or determined not significant.
CAR-67	The project is defined by the EIR in section 2.0 Project Description (2.0-1) as the adoption and implementation of the 2018 Campus Master Plan. As such, the implementation of the Master Plan will be undertaken throughout various activities over an extended time horizon, and will necessarily involve utilization of contractors who will, as part of their contract with CSUDH, provide qualified environmental consultant teams to carry out environmental mitigation measures as required by the Draft EIR. Environmental team qualifications will be a determining factor during the review of contractor qualifications and the selection of contractors. Ultimately, CSUDH will be responsible for selection of contractors and environmental team consultants, including the Qualified Archeologist identified in Mitigation Measure CUL- 1. The monitor referenced in CUL-5 is the Qualified Archeologist referenced in CUL-1, whose responsibilities are outlined throughout the various applicable mitigation measures.. CUL-5 has been revised to define qualifications and responsibilities for an archaeological monitor; and for reporting expectations.
CAR-68	Consistent with this comment, the text of the Final EIR has been revised to use "'shall' in lieu of 'should' in CUL-6.

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CAR-69	CUL-6 (page 3.4-33) provides a mechanism to allow Native American representatives the opportunity to provide input on significance, treatment, and disposition of prehistoric or Native American cultural resources through continued consultation between Native American groups and CSUDH.
CAR-70	Consistent with this comment, the text of the Final EIR has been revised for consistency in reference to the required Qualified Archaeologist. The term "project archeologist" has been replaced with "Qualified Archeologist."
CAR-71	Mitigation measures CUL-7, CUL-8 and CUL-9 have been re-numbered rewritten and reorganized to clarify mitigation requirements specific to: a). resource personnel qualifications and associated roles and responsibilities; b). the Paleontological Monitoring Plan (PMP) and; c). monitoring expectations. In addition, the project is defined by the EIR in section 2.0 Project Description (2.0-1) as the adoption and implementation of the 2018 Campus Master Plan. As such, the implementation of the Master Plan will be undertaken throughout various activities over an extended time horizon, and will necessarily involve utilization of contractors who will, as part of their contract with CSUDH, provide qualified environmental consultant teams to carry out environmental mitigation measures as required by the Draft EIR. Environmental team qualifications will be a determining factor during the review of contractor qualifications and the selection of contractors. Ultimately, CSUDH will be responsible for selection of contractors and environmental team consultants, including the monitor identified in Mitigation Measure CUL- 7. As stated in CUL-9, a monitor for paleontological resources is required as prescribed by the Paleontological Monitoring Plan during construction. CUL-9 has been updated to specify that a principal paleontologist shall identify and oversee the paleontological monitor and define responsibilities for a paleontological monitor; and for reporting expectations.

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CAR-72	Mitigation measures CUL-7 (Page 3.4-36) has been rewritten to clarify mitigation requirements specific to resource personnel qualifications and associated roles and responsibilities; the Final EIR has been revised to specify paleontological monitoring oversight by a Principal Paleontologist meeting the Society of Vertebrate Paleontology standards.
CAR-73	Mitigation measures CUL-7, CUL-8 and CUL-9 have been re-numbered rewritten and reorganized to clarify mitigation requirements specific to: a). resource personnel qualifications and associated roles and responsibilities; b). the Paleontological Monitoring Plan (PMP) and; c). monitoring expectations. CUL-8 (Page 3.4-36) now refers to preparation of the PMP, which requires a specific monitoring plan to be prepared for each individual project undertaken which will account for sensitivity specific to each project design and location. Reference to 5-feet as a determination for sensitivity has been removed.
CAR-74	Mitigation measures CUL-7, CUL-8 and CUL-9 have been re-numbered rewritten and reorganized to clarify mitigation requirements specific to: a). resource personnel qualifications and associated roles and responsibilities; b). the Paleontological Monitoring Plan (PMP) and; c). monitoring expectations. CUL-9 (Page 3.4-36) now clarifies monitoring expectations and the roles of resource personnel. Further, a qualified paleontological monitor is proficient in determining whether sediments have been previously disturbed and likewise, to determine whether fossiliferous units are present or absent. The revised text of CUL-9 in the Final EIR has been clarified to specify that, such paleontological monitoring will be conducted under the supervision of a Principal Paleontologist meeting the Society of Vertebrate Paleontology standards.
CAR-75	Mitigation measures CUL-7, CUL-8 and CUL-9 have been re-numbered rewritten and reorganized to clarify mitigation requirements specific to: a). resource personnel qualifications and associated roles and responsibilities; b). the Paleontological Monitoring Plan (PMP) and; c). monitoring expectations. CUL-8 (Page

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	3.4-36) now requires the preparation of a Paleontological Monitoring Plan (PMP) that identifies appropriate buffers. Due to the variety of potential paleontological finds and appropriate treatments, it is not practical to specify a single, standardized radius within a mitigation measure. The text of CUL-8 has been revised in the Final EIR to specify that the Principal Paleontologist will be required to prepare a Paleontological Monitoring Plan that will specify practical measures to implement upon the discovery of a paleontological resource.
CAR-76	Mitigation measures CUL-7, CUL-8 and CUL-9 have been re-numbered rewritten and reorganized to clarify mitigation requirements specific to: a). resource personnel qualifications and associated roles and responsibilities; b). the Paleontological Monitoring Plan (PMP) and; c). monitoring expectations. In addition, CUL-10 and CUL-11 have been updated to include a provision for Principal Paleontologist oversight (Page 3.4-36).
CAR-77	In response to this comment, the text of CUL-11 has been revised in the Final EIR to remove a County submittal and specify the report shall be submitted with curated specimens as required by CUL-10.
CAR-78	Due to the variety of potential circumstances surrounding the discovery of Human Remains, a specified buffer is not practical. Further, Health & Safety Code Section 7050.5 does not specify that any particular qualifications are required to notify the County Coroner; therefore CSUDH will determine the appropriate individual to contact the County Coroner depending on the particular circumstances involved if a discovery of human remains is made.
CAR-79	In response to this comment, the text of CUL-12 in the Final EIR has been revised to reference Native American in lieu of to pre-historic in reference to human remains.

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CAR-80	In response to this comment, the text of CUL-12 in the Final EIR has been revised to specify that the 48-hour period for inspection commences from the time site access is granted and language has been added to require compliance with the provisions of Public Resources Code section 5097.98.
CAR-81	As discussed on page 3.4-18 of the EIR, while all groups identified by the Native American Heritage Commission were contacted, only representatives from the Gabrieleno Band of Mission Indians and the Gabrieleno Tongva Indians of California responded. Both groups indicated a high sensitivity and requested a monitor from their specific groups be present to monitor construction activities. The protocol for monitoring was discussed and agreed upon during consultation; however, as both parties requested flexibility within the protocol, it was not practical to describe the protocol as a requirement to successfully achieve mitigation. CUL-6 provides a mechanism for ongoing consultation with Native American groups for unanticipated discovery regardless of whether the group has participated in consultation whereas CUL-13 prescribes the expectations for Native American Monitors representing the participating groups directly.
CAR-82	Existing ambient noise levels were recorded at 27 locations selected to represent the noise sensitive receptors surrounding the campus. Figure 3.6-3 "Modeled Noise Sensitive Receptors Location" displays the 27 sites in which noise levels were recorded. In Chapter 3.6 of the Draft EIR, the existing ambient noise levels used as the baseline for the analysis of noise impacts from the project are reported in tables 3.6-5 through 3.6-6. The predominant noise source affecting the noise sensitive land uses around the campus is traffic noise from adjacent roadways. Traffic noise is generally constant and represents an adequate baseline of noise at sensitive receptor locations. All other noise sources would be intermittent and dependent on time of day, on the time of year and on random events in the area. In addition to traffic noise, Chapter 3.6 of the Draft EIR also addressed and analyzed the potential for additional noise relating to event noise at the stadium (StubHub center), post-game

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	spectator and parking lot noise relating to the stadium and aircraft flyovers related to stadium events as a result of the increase in spectator capacity from 27,000 to 30,000. By using the existing ambient noise levels at the 27 selected locations surrounding the campus as the baseline for analysis for noise impacts, the study shown in the Draft EIR analyzes the manner in which the increase in traffic associated with the Campus Master Plan would affect noise levels at the 27 selected sensitive receptor locations. Given that roadway noise is the predominant noise source, this analytical approach represents a conservative approach to analyzing and identifying potential noise impacts associated with the Master Plan Project. In response to the suggestion that performance standard mitigation measures are utilized, the Chapter 3.6 of the Draft EIR identifies various mitigation measures related to operational noise impacts each of which has been determined to be infeasible. In addition, of the Draft EIR identifies Mitigation Measure NOI-1, which is intended to address temporary construction noise impacts (Pages 3.6-23-24), and which requires that CSUDH approves a construction noise mitigation plan that includes specifically identified components. However, notwithstanding the implementation of Mitigation Measure NOI-1, construction noise impacts are still considered potentially significant due to uncertainty regarding the precise details regarding scale, timing, location and nature of the various construction activities that will be implemented in accordance with the Campus Master Plan Project.
CAR-83	Please refer to the response to comment CAR-82 above.

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CAR-84	The noise modeling output has been appended to the Final EIR as an Attachment to Appendix E.
CAR-85	Please refer to response to CAR-82 above.
CAR-86	The paragraph preceding Table 3.6-6 on Page 3.6-10 identifies the range of noise levels generated by sporting events at the existing StubHub Center during both pre-event and post-event conditions. Table 3.6-6 summarizes the specific noise levels at each of the 27 noise sensitive receptor locations during both pre-event and post-event conditions. The various types of noise associated with StubHub Center events is discussed in the Draft EIR at Pages 3.6-19 -3.6-22. Further, event-generated traffic noise is summarized separately for separately for pre-event and post-event conditions, due to the different traffic patterns during pre-event and post-event conditions. Tables 3.6-8 and 3.6-9 include the modelled noise levels for pre-event and post- event conditions, respectively. Discussion of the impacts that Sunday event noise will have on the 27 receptor sites is included beginning on page 3.6-19 under the heading "Sunday Event Noise". Although the addition of 3,000 seats would add to the number of vehicles on the local streets during pre-event and post-event conditions, the changes in noise levels during these conditions was found to be less than significant (Pages 3.6-19 – 3.6-22). Further, while noise levels from the activities in and around the stadium were previously addressed in the 2001 EIR for the stadium, the Draft EIR concluded the Master Plan's inclusion of 3,000 additional seats for the StubHub Center would not cause a substantial increase in noise levels from various on-site activities (Pages 3.16-19-22.).
CAR-87	Because the Draft EIR addresses a Campus Master Plan, there currently is not sufficient data regarding the type, number, percent of time used, time of day used, and locations where various types of construction equipment would be used. As disclosed on page 3.6-13 of the Draft EIR, construction activities would result in noise from "heavy equipment, power and air tools, compressors, trucks, and other noises from loading and unloading will

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	occur with varying frequency and intensity." However, a conservative conclusion regarding impacts was made based on noise associated with the loudest piece of construction equipment, which is a concrete saw. As stated in the Draft EIR, "Activities such as demolition would result in the highest noise levels, with the concrete saws producing the highest noise level around 90 dBA at 50 feet." The EIR concludes that the project will have short term construction noise impacts, which would be significant and unavoidable based upon the analysis of the Campus Master Plan. The Draft EIR provides for appropriate mitigation in the form of Mitigation Measure NOI-1, which mandates that CSUDH approve a construction noise mitigation plan which includes specified measures to minimize temporary construction noise.
CAR-88	Please refer to the response to CAR-87 above regarding the analysis of noise levels generated by sporting events at the existing StubHub Center during both pre-event and post-event conditions. The parking lot was studied, using FTA methodology. It was found that given the number of vehicles and distance to noise sensitive receivers, the parking lots did not add to the noise levels from the closer roadways. Major roadways are located between the campus and nearby noise sensitive land uses. As surrounding roadways serve as the predominant source of noise in proximity to the noise sensitive land uses, traffic noise would represent the worst case baseline noise level. Other noise sources would be intermittent and depend on time of day, time of year and random events in the area. Noise from other sources would not be loud enough or constant enough to have an affect over that of the noise from the roadways.
CAR-89	Because the Draft EIR addresses a Campus Master Plan, there currently is not sufficient data regarding the type, number, percent of time used, time of day used, and locations where various types of construction equipment would be used. The Draft EIR conservatively concludes that because these details are unknown, it is possible that future construction activities could result in significant noise impacts. Therefore, NOI-1 requires that a

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	noise mitigation plan be completed and approved and will show how the construction can be planned and scaled such that it will minimize construction noise impacts to nearby sensitive receptors.
CAR-90	A noise analysis of new noise sources internal to the campus area was not conducted. The EIR evaluates changes in ambient noise levels due to changes in traffic volumes to and from the campus. In most cases, major roadways are located between the campus and nearby noise sensitive land uses. As surrounding roadways serve as the predominant source of noise in proximity to the noise sensitive land uses, traffic noise would represent the worst case baseline noise level. Other noise sources would be intermittent and depend on time of day, time of year and random events in the area. Noise from other sources would not be loud enough or constant enough to have an affect over that of the noise from the roadways.
CAR-91	The City of Carson's 2014-2021 Housing Element was extensively referenced on page 3.7-9 of the Draft EIR. The CEQA impact criteria (Draft EIR page 3.7-10) does not differentiate housing types such as affordable. The Draft EIR accurately states the need for additional housing in the City of Carson, and that the proposed project would help meet the demand in the City (Draft EIR page 3.7-12).
CAR-92	The purpose of Exhibits 28 and 33 in the TIA are for the analysis of trips generated by the proposed Project components. The variables for calculating population versus trip generation are different, and hence the unit values shown in the two exhibits are not good indications for population projection. For example, the variables for calculating trips generated from campus apartment housing is based on dwelling units and not number of persons.
CAR-93	The commenter makes reference to the City's 2014-2021 Housing Element (HE). The Housing Element for the City of Carson contemplates housing to satisfy demand based on the RHNA through 2021. The Master Plan

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	Update (project) has a horizon, or buildout year of 2035; therefore, there is little to no correlation between housing demand as expressed in the current HE to the future buildout scenario of the project. The intent of the campus apartment housing units is to develop housing and other features within the University Village that will be consistent with the University's Master Plan Goals. To the extent that these units help the City of Carson meet their current or future Housing Element goals is a net benefit for the project. The Draft EIR was not intended to be an exhaustive update to the housing changes in the City since the publishing of the Housing Element but to use publicly available references as identified in the Methodology section. The potential impacts to infrastructure including utilities (Section 3.11) and transportation (Section 3.10) are covered elsewhere in the Draft EIR.
CAR-94	There were two steps to projecting the total estimated population: 1) to determine base population without the project, and 2) to estimate the additional population increase generated by the Project. The baseline population size was based on US Census data, using the American Fact Finder to look for population size specifically for zip code 90746 (where the project is located). This is equals to approximately 25,990, based on 2010 demographic profile. The projection for the population generated by the Project was based on a total of 2,149 new campus apartment dwelling units, plus a net increase of student housing beds. To estimate the projected population generated by the new campus housing apartments, an average household size of 3.01 persons per dwelling unit was applied (LA County's average household size https://www.census.gov/quickfacts/losangelescountycalifornia). The projection for the population generated by the student housing was based on the net increase in student beds proposed by the Project.
CAR-95	In the Draft EIR, the projected population generated by the Project of 6,551 was calculated based on a total of 2,149 new campus housing apartment dwelling units using an average household size of 3.01 (as shown in response #105 above), plus a net increase of 83 student housing beds. Because the Project includes a net increase

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	of 341 student beds rather than 83 student beds, the Final EIR has been revised to reflect a corrected projected population figure of 6,809, which is calculated based upon the actual increase of 341 student beds, and thus the Final EIR reflects an increase in projected total population generated by the Project of 6,809 (2,149 x 3.01 = 6,468 + 341 = 6,809). It is important to note that the revised projected population figure is conservative since the proposed campus housing apartment units will consist largely of smaller one and two bedroom apartments, not single family homes, resulting in a smaller average household size than that of the City of Carson, or a typical county or city average in Southern California.
CAR-96	The comment serves as an introduction to subsequent comments regarding public service impacts. A summary of communications with each public agency service provider has been added as Appendix I to the Final EIR. No further response is required.
CAR-97	In response to the comment's suggestion that the Draft EIR lacks substantive evidence regarding available fire services for the Project, the Draft EIR accurately describes the Los Angeles County Fire Department fire stations in the vicinity of the campus, identifies the available staffing and equipment at the stations, as well as available information regarding response times at Pages 3.8-5-7. The campus, including the Project, will continue to be served by Station 116, which is located directly across Victoria Street from the CSUDH campus, and which operates with response times within published standards. In addition, six additional Los Angeles County Fire Department stations are located within approximately three miles of campus, and could also provide fire protection and emergency medical services for the campus. As referenced in the Draft EIR, although a 2011 Specific Plan referenced a plan for a new Los Angeles County Fire Department fire station near the I-405/110 interchange, there is no further or more recent evidence supporting a plan for a new fire station in the City of Carson or the need for a new fire station facility. Because seven fire stations are located within three miles of the campus, including Station 116 directly across the street from campus, existing fire station and emergency

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	medical facilities are adequate to serve the Project, and there is no evidence to support the conclusion that new or physically fire station facilities will be required as a result of the Project. For this reason, there is no need for the Draft EIR to address a mitigation agreement as referenced in the comment letter.
CAR-98	The Draft EIR at Page 3.8-7 specifically states that the University Police Department has primary police protection responsibilities for the campus, and provides service 24-hours per day 7-days per week. As stated in the Draft EIR, the University Police Department currently employs 18 full-time sworn police officers and other staff and is responsible for responding to and investigating all criminal acts on campus and campus-owned properties with the exception of (i) officer involved shooting incidents; (ii) missing or abducted juveniles; (i) missing or abducted adults; (iv) homicides; and (v) sex crimes against children. In Comment CAR-103 below, the City asserts that based on its analysis, 1.2 additional Los Angeles County Sheriff's Department deputies would be required to serve as a result of build-out of the Project. To the extent the City's projection that Project build-out will result in the need for an additional 1.2 deputies, this does not reasonably support the conclusion that new or physically altered Sheriff's Department facilities would be required as a result from the Project. There is no evidence to support the conclusion that the Project would increase demand for police protection services to the extent that would require the provision of new or physically altered governmental facilities. Further, the Project includes new on-site University police station, developed to serve the increase in development on the campus, which will be staffed as needed to support the on-campus growth resulting from the Project.
CAR-99	See Response to CAR-98.

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CAR-100	The comment provides information on law enforcement ratios; no further response is required.
CAR-101	See Response to CAR-98.
CAR-102	Even assuming the accuracy of the projection that Project build-out will result in the need for an additional 1.2 Sheriff's Department deputies, the DEIR properly analyzes whether the Project will result in the need for new or physically altered police facilities that result in significant impacts to the environment, and concludes that no such new or physically altered facilities – other than the new University Police Department facilities which is studied in the Draft EIR – will be needed as a result of the Project. Please see Response to CAR-98 for further responsive information.
CAR-103	In identifying the physical capacity of Los Angeles Unified School District schools within a 2-mile radius of the Project, the Draft EIR relied on the City of Carson General Plan EIR, dated October 2002, which provided the most recent publicly available published data regarding physical capacity. Regarding student enrollment data, the Draft EIR relied on the California Department of Education database and telephone surveys to individual schools as provided on Pages 3.8-11-12. A summary of communications with each school has been added as Appendix I to the Final EIR.
CAR-104	Payment of school fees is required by SB 50 for specified construction projects and is considered "full and complete mitigation" of any school impacts. The Draft EIR did not include a discussion of SB 50 impact fees because it concluded impacts the Project associated with schools are less than significant. Because impacts were

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	considered less than significant, there is no requirement for mitigation, and thus a discussion of the mitigation resulting from payment of SB 50 fees was not needed.
CAR-105	In response to this comment, the Draft EIR does not assume that all new residents of the campus resulting from the Project would utilize the on-campus libraries exclusively. Instead, the Draft EIR at Page 3.8-25-26 describes the on-campus library facilities as encompassing in excess of 290,000 square feet of libraries, which is sufficient to support a population in excess of 580,000 based upon the City's library service square footage ratio. Further, Page 3.8-25 of the Draft EIR explains that the campus library facilities are open to the general public, and will be available to all new residents of the campus apartment housing in the University Village. Based upon this, the Draft EIR appropriately concludes the University's libraries coupled with the City of Carson's existing library facilities would provide adequate library resources, based on the City's square footage standard, to serve a population in excess of 580,000 residents. The City currently (2016) has a population of approximately 93,000. Even with additional on-campus residents in the future resulting from the Project, library resources within the community would be well in excess of accepted standards, and there is no evidence to conclude that new or physically altered library facilities would be required as a result of the Project.
CAR-106	As detailed on pages 3.8-26 through 3.8-28 of the Draft EIR, the Master Plan Project will result in the provision of in excess of 6 acres of on-campus park and recreational facilities per 1,000 residents on campus, which is well in excess of accepted parkland standards, including the City of Carson's standard of 3 acres per 1,000 residents. More specifically, the Master Plan Project will result in approximately 50.22 acres of parkland recreation facilities on campus for approximately 8,139 future on-campus residents). Further, the on-campus park and recreational amenities are available for use by the general public within the City of Carson; thereby, providing another additional recreational resource to local residents, even those not affiliated with the University. Because the Draft EIR concluded there were no significant impacts to park and recreation facilities

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	resulting from the Project, there was no need to address mitigation of impacts as suggested in the comment. Finally, The California State University is the State of California acting in its higher education capacity As such, CSU and its campus CSUDH are not legally obligated to provide payment to the City under the referenced Interim Development Impact Fee (IDIF) or the Citywide Community Facilities District (CFD).
CAR-107	As addressed in detail in Response to Comment CAR-106, and addressed at Pages 3.8-26-28 of the Draft EIR, it concluded that impacts to park and recreation facilities resulting from the Master Plan are less than significant. Because impacts were determined to be less than significant, the Draft EIR did not discuss mitigation as mitigation was not required. In response to the comment's request that the project be "subject to the provisions" of the Quimby Act, the Quimby Act does not apply to the Master Plan Project.
CAR-108	The comment provides a summary of prior comments relative to public services impacts. No additional response is required.
CAR-109	The Draft EIR provides an exhaustive analysis of the Project's traffic impacts on local roadways, including a detailed analysis of fair share contributions toward local roadway improvements (refer to Section 3.9 of the EIR).
CAR-110	The trip generation rate calculations are provided in the Transportation Impact Study (WSP, February 2019) (TIS), which is included in its entirety as Appendix F to the DEIR. Section 5.5 of the TIS provides a detailed description of the trip generation methodology including a flowchart (Exhibit 34) and tables of calculations (Exhibits 35, 36, 37, and 38). Survey data of trip generation rates for students from other CSU campuses is

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	shown in Appendix F of the TIS. TIS Section 5.6 provides separate calculations for the trip generation related to the proposed StubHub Center seating increase.
CAR-111	As stated in CSUDH's March 19, 2019, letter to the City's Community Development Director provided in response to the City's prior inquiry: "The trip distribution and assignment used in the TIS follows industry best practice. As explained in TIS Section 5.5, the distribution for the campus population (students, faculty, and staff) was derived based on existing campus address data. The distribution for the proposed new uses (i.e., campus business park, campus housing apartments, etc.) followed the procedure outlined in Appendix D of the Los Angeles County Congestion Management Plan using the trip distribution tables found in Exhibit D-3." "Section 5.5 of the TIS provides an explanation of the trip distribution process utilized by the traffic engineer. Exhibit 34 provides a step-by-step explanation of how this was done. Exhibits 39, 40, and 41, respectively, illustrate the distribution of off-campus students, faculty, and staff, along with an explanation of how the exhibits were used for trip distribution purposes. TIS Section 5.6 includes separate trip distribution calculations relating to the proposed StubHub Center seating increase. As to the proposed retail, campus apartment housing, and campus business park uses, the distribution was calculated consistent with LA County CMP procedures." The trip distribution and assignment procedures were therefore fully disclosed in the TIS. A copy of the CSUDH March 19, 2019 letter is included in these responses to comments within the Preface. Also, the LA County DPW Traffic Impact Study Guidelines do not apply to state agencies such as the CSU system.

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CAR-112	In response to the comment, tables have been prepared that illustrates the Project's trip generation separate from the existing traffic levels (see Exhibits 1, 2, 3, and 4 in the attached Information Requested in Comments). Please note that subtracting Existing volumes from Existing Plus Project volumes may lead to misunderstandings for several reasons, namely: • Trips from existing campus uses were redistributed among the campus gateways to reflect changes in parking lot locations and internal circulation. • Existing volumes were shown as counted. However, Existing Plus Project volumes are forecasts. So in accordance with best industry practice, these were rounded so as not to imply a higher degree of accuracy than is actually possible with forecasts.
CAR-113	It appears that the commenter has conflated the change in volume at the gates with Project trips and tried to compare these with the trip generation table for the entire campus. The numbers from the Trip Generation tables are for the entire master plan area--both the existing uses and the Project. The inbound/outbound traffic at the campus gateways are the total of redistributed existing campus trips (new parking locations) and the Project trips. As noted in response to comment CAR-113, the requested trip generation table specific to the Project has been prepared as part of these responses to comments. Additionally, in response to the comment, a trip assignment figure also has been prepared as part of these responses to comments (see Exhibits 5, 6, and 7 in the attached Information Requested in Comments).
CAR-114	The referenced through movements have not been eliminated; instead, based on standard engineering practice, forecast volumes have been rounded, which, in some cases, results in a depiction of 0 volume. For example, at intersections 2 and 3, the counts for some north/south through movements were fewer than 5 vehicles per hour.

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	The Existing Plus Project forecasts were rounded to the nearest ten resulting in zero volume for these movements, even though the movement is allowed.
CAR-115	See response to CAR-112. Existing campus trips were redistributed to reflect the change in parking lot locations and revised internal circulation. Therefore, some of the "with Project" turning movement volumes were reduced even after adding the new campus trips. For the specific case of Intersection 16, the project will develop parking lots on the southern portion of the campus whose main access routes will be via University Drive, thus shifting some traffic from Victoria Street to University Drive.
CAR-116	As previously explained, some turning movement volumes are reduced with the Project at Intersection 16 as a result of the change in parking lot locations and new gates/access points (see response to CAR-115). Intersection 19 is not adjacent to the campus, so the existing volumes were not affected by the redistribution of parking lots and gates. Therefore, Project trips at Intersection 19 were added to the unadjusted non-project volumes (with no reductions). A special procedure was used to forecast campus-related trips at the intersections along the block containing the campus (Intersections, 1 through 9, and 13, 16, 25, and 29). This was to account for the change in parking lot locations and internal circulation discussed in our response to CAR-112. This procedure involved removing existing campus-related traffic from the existing intersection volumes for these intersections, and then re-distributing these trips based on the new parking lot locations and access points. The existing campus-related traffic at Intersections 13, 16, 25, and 29 could not be distinguish from other traffic and so the trips to and from campus gateways were distributed in proportion to existing traffic movement volumes. However, when these

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	trips were re-distributed, this was done based on the zip code data for off-campus students, faculty, and staff, as described in Section 5.5 of the TIS. Because this procedure was applied only to the intersections closest to campus, with the assumption that parking lot location would have less effect further from campus, there are some minor discontinuities in the way that trips from existing campus uses were distributed. In the specific case of Intersection 16, this procedure resulted in some campus traffic being shifted from the eastbound through movement to the eastbound left-turn movement. Since this increased the critical V/C ratio at the intersection rather than decreased it, the resulting forecast is conservative from a CEQA standpoint (i.e. it over-states rather than understates the impact).
CAR-117	As explained in the response to CAR-112, Existing volumes were shown as counted. All other scenarios are forecasts. So in accordance with best industry practice, these were rounded so as not to imply a higher degree of accuracy than is actually possible with forecasts. This included future No Project scenarios (see TIS Exhibit 87 for 2025 No Project, and TIS Exhibit 106 for 2035 No Project volumes). This methodology did not affect the results of the analysis, including the identification of significant impacts.
CAR-118	As stated in CSUDH's March 19, 2019 letter to the City's Community Development Director provided in response to the City's prior inquiry: "TIS Sections 9 and 11, respectively, present the future 2025 and 2035 No Project conditions. As explained in Section 9.1, traffic volumes for the 2025 No Project condition were developed by factoring up the existing weekday traffic counts using the growth factor from the Los Angeles Congestion Management Plan and then adding in the traffic for existing, known, projects. The resulting 2025 No Project traffic volumes are shown on Exhibit 87. As explained in Section 11.1, a similar process was utilized to determine 2035 No Project volumes,

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	which are shown on Exhibit 106. This methodology is consistent with industry best practice." A copy of the CSUDH March 19, 2019 letter is included in these responses to comments as Appendix _. Specific to the referenced Intersection 1, the planned hotel, which is not part of the Project, is assumed to be operational by 2025 (See final row of Exhibit 85). The hotel would generate 30 inbound trips from the east (320 total) in the AM, which accounts for the referenced increase in vehicle trips.
CAR-119	Please refer to the response to comment CAR-118 for explanation as to how the cumulative Project trips were derived. Additionally, in response to the comment, a figure illustrating the cumulative Project trips has been prepared (see Exhibits 6 and 8 in the attached Information Requested in Comments. Please note that the Existing Plus Project scenario includes build-out of the Project).
CAR-120	Under CEQA, the lead agency has the discretion to select the methodology used for impact analysis. The CSU Transportation Impact Study Manual specifies (page 26) that the analysis for stop-controlled intersections be based the average delay for the worst approach, not the worst movement.
CAR-121	The intersections were evaluated based on the LA County CMP guidelines. In their comment letter on the DEIR Caltrans, the relevant agency, did not criticize or object to this analytical approach; that is, Caltrans did not comment on our use of the Intersection Capacity Utilization (ICU) method for the EIR's analysis of Caltrans ramp terminal intersections.

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CAR-122	Our analysis follows the LA County CMP guidelines, which recommend intersection analysis to use the ICU method analysis and do not require that a queuing analysis be conducted. Regarding traffic related to StubHub Center events, as noted in the TIS, the affected intersections will be under active officer control. Should queuing problems arise, the officers will be able to adjust the green time given to various movements to relieve the queue.
CAR-123	As previously noted, the CMP guidelines do not require that a queuing analysis be conducted. The stop-controlled intersections at campus gateways do not have stop signs for their inbound approaches, so they are not expected to generate queues that spillback onto City streets. Please also note that the gateways at Intersections 1, 5, 6 and 9 will be signalized, which will provide an acceptable level-of-service (see TIS Exhibit 142).
CAR-124	The TIS identifies significant impacts at many locations that are outside of the University's jurisdiction. It correctly states that the University cannot implement and/or guarantee implementation of even "minor" improvements, thus making the mitigation infeasible within the meaning of CEQA. (Note that of these locations, the recommended improvements at seven intersections (#13, 14, 15, 16, 22, 24, and 29) may be either physically infeasible or infeasible due to right of way constraints.) As to the remaining locations, as to the Project's direct impacts, in the event the subject jurisdiction (e.g., the City of Carson) authorizes CSUDH to implement the recommended improvements, or, in the case of cumulative impacts, Carson has a plan or program in place to provide the necessary additional funding and construct the improvements, CSUDH, consistent with CEQA's requirements, will implement the necessary improvement, or

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	pay its fair-share towards such improvements, as applicable, thereby reducing the identified significant impacts to less than significant.
CAR-125	As shown in Exhibit 146 of the TIS, the second westbound left-turn lane at the intersection of Victoria Street and Drive D is not needed until future, cumulative conditions. As such, the fair share calculation takes into account the growth in non-Project cumulative, or background, volumes unrelated to the Project (i.e., through trips on Victoria Street that conflict with the westbound left-turn lane), and, therefore, the Project's share of the impact is 66%.
CAR-126	The Project is 100% responsible for mitigation identified to mitigate the Project's direct impacts (shown in Exhibit 52 for E+P), and responsible for payment of its fair share for cumulative impacts mitigation. Thus, the fair-share amount has been calculated only for the Project's cumulative impacts.
CAR-127	A discussion of the applicable NPDES Permit has been added to Section 3.10 in the text of the Final EIR. The Joint Water Pollution Control Plant is discussed on page 3.10-13 of the Draft EIR. The discussion concerning the existing condition for recycled water has been expanded on page 3.10-9 of the Final EIR. The existing conditions pertaining to Solid Waste are discussed on page 3.10-17 of the Draft EIR. The existing conditions pertaining to petroleum use are included on page 3.10-20 of the Draft EIR.
CAR-128	A Water Supply Assessment has been completed by the District, and is included within Appendix G as the Water Supply Assessment to the Final EIR. The analysis of water supply in the Draft EIR has been modified as reflected in text revisions addressed in Chapter 3.10 of the Final EIR.

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CAR-129	The Alternatives analysis provides adequate detail in the EIR for the reader to discern the differences in scope and impacts among the alternatives. Pursuant to the CEQA Guidelines Section 15126.6., "the EIR shall include sufficient information about each alternative to allow meaningful evaluation, analysis, and comparison with the proposed project. A matrix displaying the major characteristics and significant environmental effects of each alternative may be used to summarize the comparison. If an alternative would cause one or more significant effects in addition to those that would be caused by the project as proposed, the significant effects of the alternative shall be discussed, but in less detail than the significant effects of the project as proposed. (County of Inyo v. City of Los Angeles (1981) 124 Cal.App.3d 1)." Furthermore, the Increased Student Housing Alternative was analyzed at the same level of details the Project as to traffic, air quality, GHG emissions, noise and water supply. The supporting technical analysis is provided in the EIR Appendix, which is appropriate for an Alternatives analysis. Further, the impacts analysis related to the Increased Student Housing Alternatives and the Increased Student Housing with Campus Apartment Housing Relocation Alternative, are located in the Draft EIR at Pages 5.0-16-24 and 5.0-25-28, respectively.
CAR-130	See response to CAR-110.
CAR-132	The Increased Student Housing Alternative and the Increased Student Housing with Campus Apartment Housing Relocation Alternative each include a greater number of student beds and a lesser number of campus housing apartment units than the Project as described further on Pages 5.0-16 and 5.0-25 of the Draft EIR. Due to the limited number of differences between these two alternatives and the Project, the analysis of impacts associated with these two alternatives relied on the data and evidence reflected in the Public Services analysis of the Project which is found in Section 3.8 of the Draft EIR, and as analyzed in the Draft EIR at Pages 5.0-18-19 and 5.0-27.

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	For specific comments regarding the analysis of Public Services for the Project, the commenter is referred to the responses to comments CAR-98 through CAR-109 above.
CAR-133	The Alternatives section includes an analysis of impacts for each of the identified project alternatives that provides an evaluation of impacts by reference to impacts identified in the Draft EIR for the Project. Because the Draft EIR analysis of impacts for the Project relies upon and uses Appendix G of the CEQA Guidelines for purposes of analyzing impacts, the analysis of impacts for the various alternatives also relies upon and is responsive to Appendix G. Regarding the comment that the final conclusion impact statements are not adequately supported, please also refer to the response to comment CAR-129.
CAR-134	Please refer to the response to comment CAR-129.
CAR-135	The comment asserts that significant new information is required in the EIR, and therefore recirculation is required. In response, there is no need for recirculation of the Draft EIR. The Draft EIR was prepared in accordance with CEQA, and sufficient information was included and sufficient analysis performed. The Final EIR includes minor modifications and clarifications based on comments received during public review, none of which trigger the recirculation provisions of CEQA Guidelines section 15088.5.
Office of Planning and Research State Clearing House	
OPR-1	Comments have been noted and agency comments have been downloaded from the website provided.

Late Letter of Comment Received and Response

The following letter of comment was received after the public review period and its extension (February 11, 2019 to April 15, 2019). A copy of the comment letter received is included below. The responses to those comments follow the letter. Some of the comments did not address the adequacy of the environmental document; however, staff has attempted to provide appropriate responses to all comments as a courtesy to the commenter.

Letter Response Code	Author	Dated
LL-1	Aleshire & Wynder LLP on behalf of the City of Carson	July 10, 2019

Comment Letter

[LL-1]

Aleshire & Wynder LLP on behalf of the City of Carson

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July 10, 2019

VIA EMAIL AND FEDERAL EXPRESS

Jay Bond
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Re: Follow-up to City of Carson's Comment on Draft Environmental Impact Report for CSUDH 2018 Campus Master Plan – State Clearinghouse No. 2017081035 – Impact of Recent Supreme Court Decision in *City and County of San Francisco v. Regents of University of California*

Dear Mr. Bond:

On April 15, 2019, the City of Carson submitted comments on the Draft EIR for the CSUDH 2018 Master Plan. In those comments, among other things, the City addressed the application of its land use regulations and permitting authority, and application of the City's Interim Development Impact Fees (IDIF) and Citywide Community Facilities District (CFD), to the development of the "University Village" portion of the Master Plan.

The City's comments referenced the case of *City and County of San Francisco v. Regents of University of California* (2017) 11 Cal.App.5th 1107 (*San Francisco* case). At that time, the case had recently been argued before the California Supreme Court. On June 20, 2019, the California Supreme Court issued its decision, reversing the Court of Appeal's conclusion the universities in San Francisco were not require to collect and remit city parking taxes. A copy of the Supreme Court decision is enclosed.

As noted in the City's April 15, 2019 comment letter, even though the court of appeal concluded that the universities were not required to collect the parking taxes, the court stated: "we agree with San Francisco that *an activity is not necessarily governmental just because it generates revenue used to support a state entity's purpose.*" (*Id.* at 1116 [emphasis added].) The Supreme Court decision provides even more support for the application of the local land use regulations, permitting authority and development fees of a charter city, such as the City of Carson, to the University Village portion of the Master Plan.

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The CSU system argued in the *San Francisco* case that its parking lots were not subject to the city's parking tax because the Legislature specifically authorized CSU to provide parking facilities and prescribe the terms and conditions for parking, including parking fees. By contrast, the Legislature has not specifically authorized CSU to engage in real estate development open to the public and the market generally, as is contemplated in University Village. The Supreme Court was not persuaded by the argument that this legislative authorization controlled and concluded no provision of the state Constitution expressly resolved the issue with respect to a charter city. (page 9)[1] In fact, the Supreme Court looked to cases stating "the law does not forbid a government from imposing a tax on *private third parties who happen to do business with another government* (provided, that is, the tax does not discriminate against the parties *because* they are doing business with the government)." (page 9, first emphasis added) Similarly, the law would not prevent the City from applying its normal permitting and development process, development impact fees and other fees, to developers doing business with CSU in developing University Village.

The universities argued that the parking tax threatened to interfere with CSU's educational mission by making parking more expensive. (page 10) The Supreme Court rejected this argument as well, concluding that "it is permissible for a municipality to tax such *private activities* even though the tax imposes an indirect economic burden on the state government." (page 11, emphasis added) Similarly, the application of the City's normal permitting and development process, development impact fees and other fees, to developers in connection with University Village is not prohibited and is a logical consequence of our federalist system's overlapping governmental jurisdictions, even though that might impose some sort of economic burden on CSU. (page, 12, 13) As one example of this consequence, the Supreme Court cited *Board of Trustees v. City of Los Angeles* (1975) 49 Cal.App.3d 45, in which a municipal permitting requirement was held applicable to a circus operating on CSU property. (page 13)

The only circumstance in which the Supreme Court held local law would not apply is one in which state law has clearly pre-empted local regulation. (page 14) However, there is no state regulation of land use that pre-empts the City's, land use regulation being clearly within the City's authority under Article XI, Section 7 of the California Constitution.

Accordingly, mitigation measures proposed in the EIR for the CSUDH Master Plan should include compliance by private developers who are involved with the University Village portion of the Master Plan with all applicable City land use ordinances, planning, permitting, and development requirements, including payment of development impact fees and participation in the Community Facilities District, to the same degree as if the projects they are developing were

[1] References to page numbers are to the pages in the enclosed copy of the Supreme Court opinion.

not located on the CSU campus. We would be happy to meet with you and other representatives of the California State University to discuss how best to address this in the Final EIR.

Very truly yours,

ALESHIRE & WYNDER, LLP

June S. Ailin
Partner

JSA
Enclosure

cc: Mayor and Members of the City Council (by email only)
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IN THE SUPREME COURT OF CALIFORNIA

CITY AND COUNTY OF SAN FRANCISCO,
Plaintiff and Appellant,

v.

THE REGENTS OF THE UNIVERSITY OF CALIFORNIA et al.,
Defendants and Respondents.

S242835

First Appellate District, Division One
A144500

San Francisco City and County Superior Court
CPF-14-513-434

June 20, 2019

Justice Kruger authored the opinion of the court, in which Chief Justice Cantil-Sakauye and Justices Chin, Corrigan, Liu, Cuéllar, and Baker* concurred.

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* Associate Justice of the Court of Appeal, Second Appellate District, Division Five, assigned by the Chief Justice pursuant to article VI, section 6 of the California Constitution.

CITY AND COUNTY OF SAN FRANCISCO v. THE REGENTS OF THE UNIVERSITY OF CALIFORNIA

S242835

Opinion of the Court by Kruger, J.

The City and County of San Francisco (San Francisco) imposes a tax on drivers who park their cars in paid parking lots. To enforce the tax, the city requires parking lot operators to collect the tax from drivers and remit the proceeds to the city. We granted review to consider whether the California Constitution permits San Francisco to apply this tax collection requirement to state universities that operate paid parking lots in the city. We conclude the answer is yes.

I.

San Francisco is a consolidated city and county that has adopted a charter for its own governance under article XI, section 3 of the California Constitution. Exercising its constitutional power to regulate its "municipal affairs" as a charter city (Cal. Const., art. XI, § 5, subd. (a)), in the early 1970's San Francisco enacted a tax on the cost of "rent" for any parking space at a parking lot or garage in the city. (S.F. Bus. & Tax Regs. Code, art. 9, § 601.) Since 1980, the parking tax rate has been set at 25%. (*Id.*, § 602.5.)

The San Francisco parking tax is imposed on drivers. But like many taxes of its kind, the parking tax is not paid directly to the city; drivers instead pay the parking tax to the parking lot operator, along with the parking fee the operator charges. The operator then collects the taxes and remits them to the city. (S.F. Bus. & Tax Regs. Code, art. 9, § 603.) To ensure it receives the proper amounts, San Francisco

requires operators to document the taxes they collect and holds them liable for any underpayments.[1]

By its terms, the ordinance applies to public entities and private ones alike, though it does excuse public entity operators from some of the requirements imposed on private parking operators, such as

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[1] To be more specific: The ordinance generally requires the operator to file quarterly tax returns that document the amount of the parking tax to be remitted, and such other information as the city may require. (S.F. Bus. & Tax Regs. Code, art. 6, § 6.7-2, subd. (c).) The operator must also certify in writing, under penalty of perjury, that it has utilized machines that record all parking transactions to the city's specifications. (*Id.*, art. 9, § 607, subd. (b); *id.*, art. 22, § 2203.)

If an operator does not collect the tax from drivers renting parking space in its facilities, the operator becomes liable to the city for the amount of the tax. (S.F. Bus. & Tax Regs. Code, art. 9, § 604, subd. (a).) The city will excuse the operator from remitting tax on a small percentage of lost or unaccounted-for tickets, but operators are otherwise generally liable for the full value of the highest maximum daily rate charged for any lost or unaccounted-for ticket. (*Id.*, subd. (b).) The city may consider "in its sole and absolute discretion" whether an operator's explanation for lost tickets or canceled transactions is reasonable. (*Id.*, subd. (c).)

The operators' compliance with these requirements is backed by the threat of more significant sanctions. Under San Francisco law, operators must post a bond and obtain a certificate of authority in order to operate a parking lot. (S.F. Bus. & Tax Regs. Code, art. 6, § 6.6-1.) If an operator violates any city rule or regulation related to the parking tax, "including but not limited to any failure to timely collect, report, pay, or remit any tax imposed by this Code, failure to maintain accurate registration information, failure to sign any return or pay any tax when due, or failure to timely respond to any request for information," then the operator's certificate of authority may be suspended or revoked. (*Id.*, subd. (g).)

bonding and permitting requirements (S.F. Bus. & Tax Regs. Code, art. 6, § 6.6-1, subd. (h)(2); S.F. Police Code, art. 17, § 1215, subd. (b)), and requirements for installing devices to properly track parking revenue and taxes (S.F. Bus. & Tax Regs. Code, art. 22, § 2202). But public entities are still required to "collect, report, and remit" the parking tax owed by drivers to the city (S.F. Bus. & Tax Regs. Code, art. 6, § 6.8-1, subd. (b)). It is this requirement that has generated the present controversy.

Defendants are the Regents of the University of California (Regents), which oversees the University of California at San Francisco (UCSF); the Board of Directors of Hastings College of the Law (Hastings); and the Board of Trustees of the California State University (CSU), which operates San Francisco State University (SFSU) (collectively, the universities). All of the university defendants own and operate private parking facilities in San Francisco in order to serve the needs of their respective campuses. Specifically, the Regents own and operate parking facilities at UCSF's educational and healthcare facilities for the use of faculty, staff, students, researchers, visitors, and patients who receive care at the clinics and hospitals on campus. UCSF uses its parking fee revenue to fund, among other things, a shuttle bus service between its various locations for students, faculty, and staff. Hastings operates a garage near its law school, which is located in the Tenderloin neighborhood of San Francisco. Hastings explains that it operates the garage at a loss in order to maintain a safe and secure environment for its students. CSU, for its part, operates nine parking lots on SFSU's campus, which is located in an urban environment where parking is scarce.

In 1983, San Francisco attempted to collect parking lot taxes from UCSF, but the Regents asserted immunity and San Francisco declined to pursue the matter. That was, for quite some time, the end of the controversy. But in 2011, San Francisco reconsidered and directed UCSF, Hastings, and SFSU to begin collecting and remitting the parking tax. The universities refused. In response, San Francisco filed a petition for a writ of mandate in the trial court to compel compliance. San Francisco argued that it would be a minimal burden for the universities to collect the parking tax along with whatever parking fees they charge. San Francisco also offered to reimburse the universities for their administrative costs in collecting and remitting the taxes, as the trial court had ordered in another municipal tax collection case, *City of Modesto v. Modesto Irrigation Dist.* (1973) 34 Cal.App.3d 504, 508–509 (*City of Modesto*). The trial court denied the writ, concluding that the universities are exempt from compliance with the parking tax ordinance. The trial court reasoned that this result followed from the constitutional principles articulated and applied in *In re Means* (1939) 14 Cal.2d 254 (*Means*) and *Hall v. City of Taft* (1956) 47 Cal.2d 177 (*Hall*), which hold that a local government may not regulate a state entity in its performance of governmental functions unless the state consents to the regulation.

The Court of Appeal affirmed in a published opinion, agreeing with the trial court that the *Means-Hall* doctrine exempts the state agencies from collecting and remitting the parking tax. (*City and County of San Francisco v. Regents of University of California* (2017) 11 Cal.App.5th 1107 (*City and County of San Francisco*).)

Justice Banke dissented. In her view, the state's sovereignty is "not impinged" (*City and County of San Francisco, supra,* 11 Cal.App.5th at p. 1149 (dis. opn. of Banke, J.)) by the "minimal

burden" (*ibid.*) of "collecting a general local tax imposed on third parties, particularly where the costs of such are reimbursed" (*id.* at p. 1146). She also observed that other authorities have, contrary to the majority's holding, concluded that a municipality may require a state entity to collect a general tax imposed on third parties doing business with the entity, at least where the municipality reimburses the state entity for the costs of collection. (See *City of Modesto*, *supra*, 34 Cal.App.3d 504 [charter city could require state agency operating as utility to collect utility user's tax]; *Eastern Mun. Water Dist. v. City of Moreno Valley* (1994) 31 Cal.App.4th 24, 26 (*City of Moreno Valley*) [relying on *City of Modesto* to conclude general law city could require state agency operating as utility to collect utility user's tax]; accord, 65 Ops.Cal.Atty.Gen. 267 (1982) [relying on *City of Modesto* to conclude municipality may require state agency to collect local occupancy tax from private users of state conference center].) While the law on the subject "has been far from a paragon of clarity," she argued, the majority's decision left the law "in some disarray." (*City and County of San Francisco*, at p. 1124 (dis. opn. of Banke, J.).) She called on this court to "state clearly whether or not a state entity can be asked to collect a local tax imposed on third parties doing business with the entity, particularly where . . . the entity will be reimbursed its costs of doing so." (*Ibid.*)

Hearing the call, we granted review.

II.

The general problem in this case is familiar to any constitutional system in which two governments exercise authority within the same territory. The specific task before us is to determine the proper allocation of authority between a local government and state agencies under a constitution that confers substantial powers on each.

Many of California's local governments predate California's statehood, and the framers of the 1879 California Constitution dedicated an entire article to the subject of their powers. From the outset, the 1879 Constitution expressly recognized the police powers of local government, and continues to do so today: As relevant here, any city "may make and enforce within its limits all local, police, sanitary, and other ordinances and regulations not in conflict with general laws." (Cal. Const., art. XI, § 7.) The 1879 Constitution also permitted cities of a certain size to adopt charters for their own government. (*Weekes v. City of Oakland* (1978) 21 Cal.3d 386, 399 (*Weekes*), citing Cal. Const., art. XI, §§ 6, 8 (1879).) In 1896, voters approved a so-called "home rule" provision granting charter cities "supremacy over local matters." (*Weekes*, at p. 399.) This provision, as presently written, permits charter cities to "make and enforce all ordinances and regulations in respect to municipal affairs"; with respect to such matters, the cities' charters "supersede all laws inconsistent therewith." (Cal. Const., art. XI, § 5, subd. (a).)[2]

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[2] Charter counties also enjoy home rule authority. (See Cal. Const., art. XI, § 3 [County charters "shall supersede . . . all laws inconsistent therewith."].) This authority, however, is more limited than that of charter cities; the Constitution contains no provision giving charter counties supreme authority over " 'county affairs.' " (*Dibb v. County of San Diego* (1994) 8 Cal.4th 1200, 1207–1208.) San Francisco, as California's only consolidated city and county, enjoys the greater degree of autonomy that comes with charter city status. (Cal. Const., art. XI, § 6, subd. (b).)

This home rule authority includes the power to tax for local purposes.[3] The power to tax, we have explained, is the lifeblood of the charter city; without it, "the municipality cannot exist, and the municipality alone is directly concerned in its preservation." (*Ex parte Braun* (1903) 141 Cal. 204, 210.) It is this local taxation power that San Francisco, a charter city, asserts here.

The universities in this case are agencies of the state government whose powers and responsibilities are defined in the Constitution, as well as in statutory law enacted by the Legislature. The Constitution itself establishes the University of California, vesting the Regents with "full powers of organization and government" (Cal. Const., art. IX, § 9, subd. (a)), including "the legal title and the management and disposition of the property of the university and of property held for its benefit" (*id.*, subd. (f)), and "all the powers necessary or convenient for the effective administration of [the University of California]" (*ibid.*). Hastings is statutorily designated as the law department of the University of California (Ed. Code, § 92201), and is charged with "afford[ing] facilities for the acquisition of legal learning in all branches of the law" (*id.*, § 92202).

The CSU system, too, finds explicit mention in the California Constitution, which refers to the Legislature's authority to create a "state agency . . . in the field of public higher education which is charged with the management, administration, and control of the

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[3] By statute, the Legislature has conferred a parallel taxation power on "general law" cities—that is, cities that have not adopted a charter under article XI, section 3 of the California Constitution. (Gov. Code, § 37100.5.) We do not consider today whether this power is coincident with charter cities' constitutional authority.

State College System of California." (Cal. Const., art. XX, § 23.) Exercising that authority, the Legislature has conferred on CSU a variety of powers, including the power "to acquire . . . real property and to construct, operate, and maintain motor vehicle parking facilities and other transportation facilities thereon for state university officers, employees, students, or other persons." (Ed. Code, § 89701, subd. (a); see generally *id.*, §§ 66600 et seq., 89000 et seq.) The Board of Trustees may also prescribe the "terms and conditions of the parking, . . . including the payment of parking fees" (*id.*, § 89701, subd. (a)), which it has done through regulation (Cal. Code Regs., tit. 5, § 42201).

San Francisco contends that its power to raise municipal revenue through taxation permits it to apply its tax ordinance to paid university parking lots within San Francisco borders, just as it applies the ordinance to other paid parking lots operated by private entities. The universities, on the other hand, argue that their status as agencies of the sovereign state government, engaged in duties assigned to them by state law and addressing matters of statewide importance, places private parties' use of their paid parking lots beyond the reach of San Francisco's revenue power. No provision of the state Constitution expressly resolves this controversy; the parties thus rely primarily on inferences from constitutional structure and this court's precedent resolving other types of intergovernmental conflicts. To answer the question, we must disentangle two separate threads of the inquiry. First, does San Francisco have the power to tax drivers who use paid university parking lots? Second, if so, may San Francisco enlist the universities' help in collecting and remitting the taxes?

III.

We begin with the first issue, which goes to the substantive validity of the parking tax. The answer follows from settled precedent. As we have described it, the tax in question is not imposed on the state universities or their property. It is, rather, imposed on private parties—namely, drivers who use parking lots. This is a critical distinction. Since the days of *M'Culloch v. State of Maryland* (1819) 17 U.S. 316, it has been understood that the law forbids one government from imposing a tax on another. But it is also understood that the law does not forbid a government from imposing a tax on private third parties who happen to do business with another government (provided, that is, the tax does not discriminate against the parties *because* they are doing business with the government). (E.g., *Weekes*, *supra*, 21 Cal.3d at p. 398, citing *Graves v. N. Y. ex rel. O'Keefe* (1939) 306 U.S. 466, 486–487 (*Graves*).) The parking tax here, which applies to drivers in precisely the same way regardless of whether they use the university parking lot or a private parking lot across the street, belongs to this second category of taxes. There is no assertion here that the drivers here stand in the shoes of the universities themselves. Principles of governmental tax immunity do not bar the parking tax.

The universities do not take direct aim at this settled understanding of the limits of governmental tax immunity or their application to this case; the primary focus of their challenge to San Francisco's ordinance is, rather, the requirement that they play a role in collecting and remitting the taxes. Nevertheless, the universities raise a series of objections to San Francisco's tax ordinance that can only be understood as indirect challenges to San Francisco's power to impose the parking tax on the third parties who pay for use of

university parking lots. CSU, for example, contends that it should not be required to collect the parking tax because parking is of particular importance to the university and the tax threatens to interfere with CSU's educational mission by making parking more expensive. It explains that parking for SFSU students, staff, and visitors is scarce; adding a parking tax would make it difficult for CSU to ensure parking remains affordable; and CSU would lose revenue if it reduced its parking prices by the amount of the tax. The other universities raise similar concerns about interference with their judgments about how to provide affordable access to their facilities and the downstream impact on their budgets; indeed, Hastings adds that it considers parking so important that it already operates its garage at a loss.

Although the universities offer these arguments in service of their arguments for avoiding collection of San Francisco's parking tax, their true target is plainly the tax itself. If San Francisco's parking tax ordinance interferes with their judgments about how best to provide affordable access for guests and affiliates, it is because of San Francisco's chosen tax rate as applied to the third parties who park in university lots, not because of the requirement that parking lot operators collect these taxes along with other parking charges.

The answers to this set of objections, however, also follow from settled precedent. Our cases have made clear that a particular private activity may be a matter of particular concern to the state and nonetheless subject to municipal taxation. Even when the state has exclusive regulatory authority in a particular area, a local tax on the conduct of the regulated activity, without more, is not an impermissible " 'interference with state affairs.' " (*In re Groves* (1960) 54 Cal.2d 154, 157, quoting *In re Galusha* (1921) 184 Cal. 697

[municipality may tax attorney engaged in practice of law, notwithstanding exclusive state regulation of legal practice].)

Our cases have also held that it is permissible for a municipality to tax such private activities even though the tax imposes an indirect economic burden on the state government. General taxes on government employees and contractors are prime examples. In *Weekes, supra,* 21 Cal.3d 386, for example, this court upheld the application of a municipal occupation tax to state workers notwithstanding the clear, if indirect, impact on the state's choices regarding employee compensation. Similarly, in *City of Los Angeles v. A.E.C. Los Angeles* (1973) 33 Cal.App.3d 933 (*A.E.C. Los Angeles*), the Court of Appeal upheld the application of city business taxes to a state contractor, calculated on the basis of the gross receipts the contractor had obtained from the state. The court in *A.E.C. Los Angeles* explained that while "local ordinances may not impose a regulatory scheme upon private persons which operates to impinge upon the sovereign power of the state . . . revenue measures of general application imposing a nondiscriminatory tax upon persons doing business in a state regulated activity or with the state, do not so impinge." (*Id.* at p. 940, citations omitted.) This is so, the court explained, even when the economic burden can be passed on to a "higher governmental unit," thus indirectly affecting its operations. (*Ibid.*)

In elaborating these principles, these cases drew on a body of federal case law applying similar principles to uphold similar taxes imposed by state governments on federal employees and contractors. (See *Weekes, supra,* 21 Cal.3d at p. 398; *A.E.C. Los Angeles, supra,* 33 Cal.App.3d at p. 940.) In *Graves*, for example, the United States Supreme Court upheld a state tax on federal employees' income,

rejecting the argument that the resulting burden on the federal government is "tantamount to an interference by one government with the other in the performance of its functions." (*Graves, supra*, 306 U.S. at p. 481.) The high court has likewise upheld state taxes even when the levy effectively draws from the public treasury, as under cost-plus contracts that pass the entirety of the tax onto the federal government (see *United States v. Boyd* (1964) 378 U.S. 39, 46–47; *Alabama v. King & Boozer* (1941) 314 U.S. 1, 8 (*King & Boozer*)), or other contracts under which the taxes are paid with federal monies (see *United States v. New Mexico* (1982) 455 U.S. 720, 741–743 (*New Mexico*)).

The relationship between the federal and state governments is by no means identical to the relationship between state universities and charter cities. But the federal cases nevertheless offer several important lessons that have proved influential in our own case law. The federal cases recognize that "inferior" governments may levy taxes on private parties, even if the economic burden of that tax is passed entirely to the "superior" government. That this economic burden may make it more expensive for the superior government to perform its mission does not create an immunity from taxation—even when the mission is as critical as managing national railroads (*Railroad Company v. Peniston* (1873) 85 U.S. 5, 33), locks and dams on navigable rivers (*James v. Dravo Contracting Co.* (1937) 302 U.S. 134), army camps (*King & Boozer*), atomic energy plants (*Boyd*), or atomic laboratories (*New Mexico*). The cases reason that our federalist system is structured with overlapping governmental jurisdictions, and each level of government must be able to raise revenue from the constituents who benefit from its services—even though this taxation will inevitably impose indirect economic costs on

other governments operating within that jurisdiction. This is "but a normal incident of the organization within the same territory of two independent taxing sovereignties." (*King & Boozer*, *supra*, 314 U.S. at p. 9.)

California cases adopting this general view have not been limited to the realms of employment or contracting. For example, in *Board of Trustees v. City of Los Angeles* (1975) 49 Cal.App.3d 45 (*Board of Trustees*), the court upheld a municipal permitting requirement as applied to a circus held on CSU property. The court noted the ordinance would affect CSU "only in whatever manner enforcement might affect the revenue production" of the property, which was insufficient to bar the tax under preemption or sovereign immunity principles. (*Id.* at p. 49.) And in *Oakland Raiders v. City of Berkeley* (1976) 65 Cal.App.3d 623 (*Oakland Raiders*), the court upheld a city gross receipts tax on the Oakland Raiders for professional football games played in California Memorial Stadium at the University of California, Berkeley. The court acknowledged "the University of California is not subject to local regulations with regard to its use or management of the property held by the Regents in public trust." (*Id.* at p. 626.) Nonetheless, the court concluded, "[a] tax upon the operation of a business by a lessee of publicly owned property constitutes a tax upon the privilege of performing the business rather than a tax upon the property." (*Id.* at p. 627.) And " 'where it merely appears that one operating under a government contract or lease is subjected to a tax with respect to his profits on the same basis as others who are engaged in similar businesses, there is no sufficient ground for holding that the effect upon the Government is other than indirect and remote. . . .' [citation]; the fact that a tax may constitute

other governments operating within that jurisdiction. This is "but a normal incident of the organization within the same territory of two independent taxing sovereignties." (*King & Boozer*, *supra*, 314 U.S. at p. 9.)

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an indirect burden upon an organ of government does not invalidate the tax." (*Ibid.*)

The only municipal tax case in which we have invalidated a city's assertion of the power to tax parties regulated by or doing business with the state is *California Fed. Savings & Loan Assn. v. City of Los Angeles* (1991) 54 Cal.3d 1 (*California Federal*). Not surprisingly, the universities rely heavily on *California Federal*, but it does not help them. In *California Federal*, we held that a state statute imposing a tax on banks and financial corporations in lieu of all other taxes and licenses preempted a municipal business tax that the City of Los Angeles, a charter city, sought to collect from a savings and loan association operating within its jurisdiction. The core of the ruling concerned the conflict between the municipal tax and the state taxation law, which had been designed to displace all other taxation laws. (*Id.* at pp. 18–19.) We explained that although taxation is a "necessary and appropriate power of municipal government, aspects of local taxation may under some circumstances acquire a 'supramunicipal' dimension, transforming an otherwise intramural affair into a matter of statewide concern warranting legislative attention." (*Id.* at p. 7.) "In the event of a true conflict between a state statute reasonably tailored to the resolution of a subject of statewide concern and a charter city tax measure, the latter ceases to be a 'municipal affair' to the extent of the conflict and must yield." (*Ibid.*)

This case involves no similar conflict between the Legislature's resolution of a matter of statewide concern and a charter city tax measure; the Legislature has enacted no overriding statutory regime designed to displace municipal parking taxes as applied to university

students, staff, or other guests.[4] CSU, pointing to the unique provisions of its governing statute, does argue that the Legislature impliedly displaced San Francisco's parking tax by giving CSU the power to build parking facilities (Ed. Code, § 89701, subd. (a)), and giving the Board of Trustees the power to prescribe "the payment of parking fees in the amounts and under the circumstances determined by the trustees" (*ibid.*). But the argument is unpersuasive; San Francisco's tax does not hinder CSU's ability to build parking facilities or charge the fees of its choice, any more than the municipal licensing tax at issue in *Weekes* hindered the state employer's ability to hire employees or set the salary of its choice. We discern no "true conflict" that would require the tax measure to yield. (*California Federal*, *supra*, 54 Cal.3d at p. 7.)

To the extent CSU or the other universities argue San Francisco's parking tax is impliedly preempted because it imposes an economic burden that threatens interference with the universities'

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[4] The Regents argue that *California Federal* should be read for the broader proposition that municipal tax measures applicable to transactions with state agencies should be reviewed with the same degree of scrutiny as substantive regulations of those transactions. They rely for this argument on a sentence that reads: "[C]harter city tax measures are subject to the same legal analysis . . . as charter city regulatory measures." (*California Federal*, *supra*, 54 Cal.3d at p. 7.) But as the surrounding context makes clear, this sentence meant only that charter city taxes are not "invariably," and thus uniquely, "immune from state legislative supremacy" in the preemption context. (*Id.* at p. 6.) In other words, a charter city tax—like a charter city regulation—may be preempted by a state statute in appropriate circumstances. But as we explain, there is no preemptive state statute applicable to the circumstances of this case.

performance of their assigned duties, we have already explained that the law is to the contrary; indirect economic consequences alone are insufficient to invalidate a nondiscriminatory municipal tax on third parties doing business with the state or its agencies. This is, in substance, the same argument that was rejected in *Oakland Raiders*. And it is an argument inconsistent with the basic principles we applied in *Weekes*. Any municipal tax will produce economic ripples that reach every significant market participant. If state agencies could invalidate municipal taxes based on these indirect effects on their operations, little would be left of the city's revenue power. Rather than attempt to draw granular distinctions based on the degree to which a tax on third parties affects government operations, the law instead generally confers on municipal governments the power to tax third parties, provided the tax is nondiscriminatory—and provided the tax satisfies the test against which the validity of all taxes are judged, namely, that it bears the necessary " 'fiscal relation to protection, opportunities and benefits given.' " (*Weekes*, *supra*, 21 Cal.3d at p. 398.)

Applying these principles here, we conclude that the San Francisco parking tax ordinance is not invalid as applied to drivers who park in paid university parking lots even though the tax will have secondary effects on the universities. This conclusion in no way calls into question the genuineness or importance of the universities' interest in providing accessible parking to staff, students, and guests, while minimizing the impact on their own budgets. We instead conclude that such interests, important though they may be, are not a sufficient basis for setting aside a nondiscriminatory municipal tax where the legal incidence falls on private parties who do not actually

" 'stand in the Government's shoes.' " (*New Mexico*, *supra*, 455 U.S. at p. 736.)

To put the matter simply: Private parties transacting on state property may not appropriate to themselves the state's immunity from local taxation, and state agencies may not nullify local taxes on account of unfavorable secondary economic effects. (See *Oakland Raiders*, *supra*, 65 Cal.App.3d at p. 627; *Board of Trustees*, *supra*, 49 Cal.App.3d at p. 49; *A.E.C. Los Angeles*, *supra*, 33 Cal.App.3d at p. 940.) Affirming San Francisco's power to tax drivers who park in paid university lots does not answer whether San Francisco has the further power to order the universities to collect and remit those taxes. It does, however, sharpen the inquiry. If San Francisco has exceeded its authority, it is because there is something constitutionally improper about the particular burden of requiring state employees to perform tax collection on behalf of municipalities. We must evaluate this burden separately from the universities' opposition to the parking tax itself.

IV.

We turn then, to the crux of the case before us: whether the California Constitution permits San Francisco to require the state university parking lot operators to collect the parking tax and remit the proceeds to the city.

As an initial matter, we note there is nothing unusual about San Francisco's general requirement that parking lot operators collect and remit the parking taxes on its behalf. Such arrangements are standard operating procedure in many areas of tax law. As this court observed decades ago: "The field of taxation is replete with examples of a government entity making businesses generally its agent in tax collections and prescribing certain regulations in the accounting

therefor . . . such as withholding taxes and social security taxes for the United States government, unemployment taxes and numerous excise taxes for the state—'a familiar and sanctioned device.' " (*Ainsworth v. Bryant* (1949) 34 Cal.2d 465, 477 (*Ainsworth*).) When a governmental entity lays a tax on a particular type of transaction, it often tasks one party to the transaction with the duty to see the tax is paid. Without such arrangements, a great many valid tax laws—including this one—would simply go unenforced. (*Ibid.*)

What makes this case unusual is that one government has sought to impose such a requirement on another. While governments have often agreed among themselves to lend such assistance (see, e.g., 5 U.S.C. § 5517 [authorizing federal employers to withhold state income taxes]; Rev. & Tax. Code, § 7204 [authorizing the State Board of Equalization to remit sales and use taxes collected on behalf of local governments]), here no such agreement has been reached. The universities contend that principles of "hierarchical sovereignty" embodied in the California Constitution forbid a municipality from imposing any sort of requirement on the sovereign state or state agencies engaged in their assigned functions—including a requirement to collect and remit local taxes from users of their facilities—unless the state consents to the imposition.

The centerpiece of the universities' argument is a series of cases holding that otherwise legitimate exercises of municipal regulatory power cannot be enforced against state agencies engaged in pursuit of their constitutionally or statutorily assigned duties. The line of cases begins with *Means, supra*, 14 Cal.2d 254, which concerned the constitutionality of applying a municipal plumber certification ordinance, which required plumbers to sit for examination and deliver a bond, against a state employee working on state property. (*Id.* at

pp. 256–257.) We held the ordinance could not be constitutionally applied to the state employee, explaining that when setting qualifications for its employees, the state "acts in an exclusive field [citations], and is not subject to the legislative enactments of subordinate governmental agencies." (*Id.* at p. 258.) Thus, "[i]f one who has been employed by the state may not work on state property within a municipality without the consent of the municipality obtained after examination, the city has, in effect, added to the requirements for employment by the state, and restricted the rights of sovereignty." (*Ibid.*)

In so holding, *Means* outlined a set of general limits on a charter city's power over "municipal affairs." The rule, we explained, "is not entirely a geographical one. Under certain circumstances, an act relating to property within a city may be of such general concern that local regulation concerning municipal affairs is inapplicable." (*Means*, *supra*, 14 Cal.2d at p. 259.) For example, maintenance of city streets ceases to be a municipal affair if the Legislature designates a street as a secondary state highway; so, too, regulations that require construction to be overseen by local supervisors ceases to be a municipal affair once they are applied to state buildings. (*Ibid.*) In each example, the municipality's exercise of power results in a "direct conflict of authority." (*Id.* at p. 260.) "Upon fundamental principles," we concluded, "that conflict must be resolved in favor of the state." (*Ibid.*)

We addressed a similar issue in *Hall*, *supra*, 47 Cal.2d 177, in which we held that a school district organized under state laws was exempt from building regulations promulgated by a nonchartered city. We explained that under the California Constitution, "[t]he public schools of this state are a matter of statewide rather than local or

municipal concern" (*id.* at p. 179); furthermore, we observed, the state has occupied the field of the construction of school buildings (*id.* at pp. 184, 188). Citing *Means*, we explained that, as a general rule, when the state "engages in such sovereign activities as the construction and maintenance of its buildings . . . it is not subject to local regulations unless the Constitution says it is or the Legislature has consented to such regulation." (*Hall*, at p. 183.) So, too, with the construction of school buildings by school districts that act as state agencies for the operation of the local school system. (*Ibid.*; see *id.* at p. 181.)

The Courts of Appeal have applied the principles articulated in *Means* and *Hall* to exempt state agencies from the regulatory reach of a wide array of local ordinances. In *City of Santa Ana v. Board of Ed. of City of Santa Ana* (1967) 255 Cal.App.2d 178 and *Laidlaw Waste Systems, Inc. v. Bay Cities Services, Inc.* (1996) 43 Cal.App.4th 630, for example, the courts held that school districts were exempt from local garbage collection regulations. In *City of Orange v. Valenti* (1974) 37 Cal.App.3d 240, the court held that the state unemployment insurance office did not have to comply with a local parking ordinance prescribing the number of parking spaces that must be available. (*Id.* at pp. 242–244.) In *Regents of University of California v. City of Santa Monica* (1978) 77 Cal.App.3d 130, 136–137, the court held the city could not enforce a construction fee against the Regents, because "the University of California is not subject to local regulations with regard to its use or management of the property held by the Regents in public trust."

This line of cases does not articulate quite as broad a rule as the universities suggest.[5] The cases concern substantive regulatory requirements that interfered with the state's substantive judgments about how to perform its assigned functions. *Means* and *Hall* tell us that in the event of a conflict between a municipality's view of, say, how best to build a parking lot, and the state's ability to decide for itself what sort of parking lot would best serve its needs, the state's prerogatives must prevail. But the *Means-Hall* cases do not hold that state agencies are categorically beyond the reach of any local law, no matter how inobtrusive, including one that does no more than require assistance in collecting a concededly valid tax on third parties. No such scenario was presented in those cases, and we did not answer the question.

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[5] The Court of Appeal understood this line of cases to distinguish between municipal regulations that operate on state agencies in their performance of "proprietary" activities—which are permissible—and those regulations that instead operate on state agencies in their performance of "governmental functions." The court concluded that the operation of the parking lots in question is a "governmental" function, and for that reason deemed San Francisco's collection requirement unconstitutional as applied. (*City and County of San Francisco*, *supra*, 11 Cal.App.5th at p. 1114; see *Board of Trustees*, *supra*, 49 Cal.App.3d 45; *City of Modesto*, *supra*, 34 Cal.App.3d 504.) Although the parties continue to debate whether operation of paid parking lots is better described as a "proprietary" or a "governmental" function, both sides agree that the proper result in this case does not turn on this matter of characterization. We agree. Because this case does not require us to decide how the distinction between governmental and proprietary functions might inform our assessment of the state's interest, if at all, we decline to do so.

The universities' argument for an absolutist view of "hierarchical sovereignty" also draws on an intuition derived from federal constitutional law, where the high court has held that one sovereign—namely, the federal government—cannot conscript officials of another sovereign—state governments—for its own purposes. (See *Murphy v. National Collegiate Athletic* (2018) 584 U.S. ___ [138 S.Ct. 1461]; *Printz v. United States* (1997) 521 U.S. 898.) But it is not clear that even those cases, which concern the unique federalism principles embodied in the United States Constitution, are properly read to adopt a rule of categorical immunity from any and all ministerial requirements one government might impose on another. (See *Printz*, at p. 936 (conc. opn. of O'Connor, J.) [reserving question whether anticommandeering doctrine invalidates ministerial reporting requirements].)

And outside of the context of federal-state relations, the high court has concluded that one government—the state—does have the authority to require another government—an Indian tribe—to bear " 'minimal burdens' " in collecting any applicable state taxes on its behalf, even though the tribe is in no way answerable to the state. (*Oklahoma Tax Comm'n v. Chickasaw Nation* (1995) 515 U.S. 450, 459.)

Having exhausted the relevant precedent in this area, it remains to consider whether the structure of our state Constitution requires us to erect a rigid bar against the sort of intergovernmental tax collection assistance requirement at issue here. We conclude that it does not. In matters concerning the structural division of authority under our Constitution, we have generally avoided the type of absolutist approach the universities urge in favor of a more flexible one, capable of adaptation to the practical imperatives of governance.

(See, e.g., *People v. Bunn* (2002) 27 Cal.4th 1, 14 [recognizing that while our Constitution divides power among three coequal branches, "the branches share common boundaries [citation], and no sharp line between their operations exists. [Citations.] . . . [¶] Indeed, the 'sensitive balance' underlying the tripartite system of government assumes a certain degree of mutual oversight and influence. [Citations.]")

In questions concerning the division of authority between the state and charter cities, in particular, we have recognized the need to maintain a sensitive balance between competing prerogatives. In *California Federal*, we emphasized the fact- and circumstance-specific nature of the determination whether an ordinance governs a " 'municipal affair,' " (*California Federal, supra*, 54 Cal.3d at p. 17) over which charter cities maintain ultimate authority (Cal. Const., art. XI, § 5, subd. (a)), or a " 'statewide concern,' " which means the charter city measure must yield in the face of conflicting state interests (*California Federal*, at p. 17). "In cases presenting a true conflict between a charter city measure—whether tax or regulatory—and a state statute," we said, "the hinge of the decision is the identification of a convincing basis for legislative action originating in extramunicipal concerns, one justifying legislative supersession based on sensible, pragmatic considerations." (*California Federal*, at p. 18.) Courts may invalidate an otherwise valid charter city measure only where, "under the historical circumstances presented, the state has a more substantial interest in the subject than the charter city." (*Ibid.*) This state interest must be demonstrated through a "fact-bound justification," for deferring to the mere assertion of a state prerogative would " 'ultimately all but destroy municipal home rule.' " (*Ibid.*)

Here, too, we conclude that the constitutional task before us calls for a sensitive balancing of constitutional interests, rather than a simple invocation of constitutional rank. To be sure, this is not a preemption case like *California Federal*; we are not asking whether an ordinance that would otherwise represent a lawful exercise of the charter city's powers is invalid, either on its face or as applied, because the Legislature has claimed the relevant regulatory area exclusively for the state. But the basic task is similar. Here, much as in *California Federal*, we are called on to "adjust[] the political relationship between state and local governments in discrete areas of conflict." (*California Federal*, *supra*, 54 Cal.3d at p. 18.) Our emphasis on pragmatic balancing and factual context in the preemption analysis translates cleanly to the present dispute, and contradicts the kind of categorical, sweeping rule urged by the universities. A state agency's generalized offense at the notion of taking orders from a local government cannot alone be dispositive; we must consider and pragmatically weigh the substantive constitutional interests on both sides of the balance.

Here, on the state's side of the balance, we recognize the universities' objection rests on more than just generalized offense; they worry that if municipalities begin to impose legal requirements on them, their attention will inevitably be diverted from their missions. The concern is a legitimate one, but it bears emphasis that the case before us does not concern just any kind of legal requirement; it concerns a requirement to collect parking taxes along with the university's parking fees. Even so, we agree with the dissenting opinion in the Court of Appeal that "requiring a state entity to collect a local tax brings the respective sovereign spheres of the state and a municipality within harrowingly close proximity." (*City and County*

of San Francisco, *supra*, 11 Cal.App.5th at p. 1146 (dis. opn. of Banke, J.).) But as a practical matter, the burdens associated with the particular tax-collection requirement at issue here are minimal.[6] The only disruptions the universities have been able to identify with any specificity are the secondary economic effects that San Francisco's tax will impose on their parking operations. As we have already explained, however, "the fact that a municipal tax is imposed in a fashion which permits its ultimate economic burden to be passed on to a higher governmental unit does not invalidate it." (*A.E.C. Los Angeles*, *supra*, 33 Cal.App.3d at p. 940.)

On the other side of the balance, the city's interest in enforcing the collection requirement is considerable. San Francisco has a legitimate interest in the millions of dollars in contested tax money, and a tax is effective only if it can be collected. It is precisely for that reason that we have repeatedly held in other contexts that the power to tax includes the power to order steps necessary to collect the tax, including the recruitment of third parties who would otherwise be beyond the charter city's regulatory power. In *Ainsworth*, *supra*, 34 Cal.2d 465, for example, a liquor retailer challenged San Francisco's sales tax, arguing it was inconsistent with a constitutional provision vesting the state with the exclusive power to regulate liquor within the state. (*Id.* at p. 468; see Cal. Const., art. XX, § 22.) San Francisco's

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[6] And indeed, to avoid any question on the score, San Francisco has conceded that it may be required to reimburse the universities for their costs of collection and remittance. While it is clear that there is no significant burden on a sovereign when these administrative costs are reimbursed, the parties have not asked us to decide whether the burden could be significant where reimbursement is not provided.

ordinance required the retailer to collect a sales tax from the purchaser at the time of sale, to register with the tax collector, to keep records, and to make quarterly returns. (*Ainsworth*, at pp. 468–469.) We held that the effect of the constitutional provision should not be extended to reduce "the plenary power of taxation possessed by a chartered municipality as an essential attribute of its existence." (*Id.* at p. 472.) Because the tax was a valid exercise of the city's authority, we further held that the collection, recordkeeping, and remittance requirements "appear reasonably adapted to insure the collection and proper remission of the tax, and as so premised, they constitute the maintenance of an accounting standard coincident with the city's taxing power rather than a regulation exclusively reserved to the state in the exercise of its police power over the liquor traffic." (*Id.* at p. 476.) The conclusion that a collection requirement is not a "regulation" reserved to the state, we said, "seems wholly clear when it is remembered that the city's power to levy such tax would include the power to use reasonable means to effect its collection." (*Ibid.*)

Similarly, in *Rivera v. City of Fresno* (1971) 6 Cal.3d 132, disapproved on other grounds by *Yamaha Corp. of America v. State Bd. of Equalization* (1998) 19 Cal.4th 1, consumers sought to invalidate an ordinance requiring utility companies to collect and remit a municipal utility tax. (*Rivera*, at p. 135.) We held that the tax was consistent with the charter city's "home rule" powers, and was not preempted by the state's law regulating local sales and use taxes or its laws regulating public utilities. (*Id.* at pp. 135–136, 139–140.) "[W]hether or not the state has occupied the field of regulation," we said, "cities may levy fees or taxes solely for revenue purposes, as was done by the Fresno utility users' tax." (*Id.* at p. 139.) "Further, the requirement that the utility company supplying a particular utility

service collect the utility users' tax and remit to the city does not constitute forbidden or conflicting regulation of the utility." (*Ibid.*) Similar principles are in play here, though the subject of the collection requirement is a state agency rather than a private entity subject to exclusive state regulation.

This conclusion accords with the only appellate decision to consider this issue before the Court of Appeal decision in this case. In *City of Modesto*, *supra*, 34 Cal.App.3d 504, Modesto, a charter city, sought to compel irrigation districts—state agencies that distribute and sell electrical energy—to collect utility taxes owed by the service user. The irrigation districts conceded the utility users' tax was a "valid exercise of a chartered city's power to tax for revenue purposes." (*Id.* at p. 506.) But much like the universities here, the irrigation districts argued "that they cannot be compelled to collect the city's tax because the ordinance, to the extent that it applies to them, impinges on the state's sovereignty over local entities; they assert that the collection requirement of the city ordinance is a regulation and that this regulation, if extended to state agencies, contravenes the almost universal rule throughout this country that the activities of the state and its agencies cannot be controlled or regulated by local entities in the absence of legislative consent." (*Ibid.*)

The Court of Appeal rejected this argument. The court held, as an initial matter, that a collection requirement that affects a state agency in its "proprietary" capacity does not impinge on state

sovereignty. (*City of Modesto*, *supra*, 34 Cal.App.3d at pp. 506–507.)[7] But the court then proceeded to "affirm the judgment for another reason." (*Id.* at p. 508.) Recognizing that the city "has no practical nor economical means of collecting such a tax without the cooperation of the supplier of the utility service," the court concluded: "It is basic that the power to tax carries with it the corollary power to use reasonable means to effect its collection; otherwise, the power to impose a tax is meaningless. (*Ainsworth*[, *supra*,] 34 Cal.2d [at p.] 476 [211 P.2d 564].) It is also basic that if there is a conflict between the California Constitution and a law adopted by the Legislature, the California Constitution prevails. While irrigation districts may be state agencies, they are nevertheless creatures of the Legislature, and like the Legislature must submit to a constitutional mandate; the California Constitution is the paramount authority to which even sovereignty of the state and its agencies must yield. It follows that the collection requirement of respondent's ordinance, though applicable to state agencies, is a reasonable exercise of the city's constitutional power to tax for revenue purposes." (*City of Modesto*, at p. 508.) In so holding, the court emphasized that the irrigation districts "are merely conduits for the collection of the city's tax; they are not liable for the tax itself or the cost of collection; the trial court has ordered the city to reimburse the districts for all costs incurred in

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[7] As noted above, we do not rely on the distinction between proprietary and governmental activities in reaching our conclusion in this case. (See *ante*, fn. 5.)

the collection process." (*Id.* at pp. 508–509.)[8] The same is true here, and the same result should obtain.

Our conclusion is also, as noted, consistent with high court precedent holding that the power to tax includes the power to require reasonable collection efforts from a fellow government. In *Moe v. Salish & Kootenai Tribes* (1976) 425 U.S. 463 (*Moe*), the court adjudicated a series of disputes between the asserted taxing power of the State of Montana and the immunity claimed by an Indian tribe. As relevant here, although states have no power to regulate Indian tribes, the court upheld a state cigarette tax imposed on reservation sales to non-Indians. The court went on to consider whether the state could require an Indian retailer on the reservation (including the tribe itself) to collect a state cigarette tax imposed on sales to non-Indians. The tribe argued "that to make the Indian retailer an 'involuntary agent' for collection of taxes owed by non-Indians is a 'gross interference with [its] freedom from state regulation.' " (*Id.* at p. 482.) But, the court recognized, "[w]ithout the simple expedient of having the retailer collect the sales tax from non-Indian purchasers, it is clear that wholesale violations of the law by the latter class will go virtually unchecked." (*Ibid.*) The court further explained that the "State's

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[8] In *City of Moreno Valley*, *supra*, 31 Cal.App.4th 24, the court relied on *City of Modesto* to hold that the city could require a municipal water district to collect and remit utility taxes. Unlike in *City of Modesto*, however, the district in *City of Moreno Valley* did not claim that the ordinance impinged on the state's sovereignty; it argued only that no statute authorized the city to impose the collection requirements on it. (See *City of Moreno Valley*, at p. 30.)

requirement that the Indian tribal seller collect a tax validly imposed on non-Indians is a minimal burden designed to avoid the likelihood that in its absence non-Indians purchasing from the tribal seller will avoid payment of a concededly lawful tax." (*Id.* at p. 483.) This collection requirement, the court said, did not frustrate tribal self-government or run afoul of any congressional enactment. (*Ibid.*) Thus, "the State may require the Indian proprietor simply to add the tax to the sales price and thereby aid the State's collection and enforcement thereof." (*Ibid.*)[9]

Here, balancing the relevant interests of the concerned governments, we reach a similar conclusion. The municipal interests at stake are weighty. As a charter city, San Francisco has the

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[9] The court sounded a similar theme in *Rainier Nat. Park Co. v. Martin* (W.D.Wn. 1937) 18 F.Supp. 481, affd. *sub nom. Rainier Nat. Park Co. v. Martin* (1938) 302 U.S. 661, which we cited in *Ainsworth*. A corporation operating in a national park in the State of Washington challenged the validity of various taxes levied by the state, including a retail sales tax that the state required the corporation to collect on merchandise sold to tourists, on the grounds that it was an instrumentality of the United States and immune from taxation. (*Rainier Nat. Park*, *supra*, 18 F.Supp. at p. 487.) The court held that Washington did possess the authority to impose the contested taxes, and "[w]hen the state reserved the right to tax, it also reserved the right to collect or enforce the tax. The former without the latter would be an empty gesture, which is not the purpose of the reservation. If the collection or enforcement incidentally constituted a regulation of plaintiff's business, it was valid, nevertheless, if the means adopted for the collection or enforcement are reasonable. It has long been held that the imposition of the duty to collect the tax upon a person, and thus constitute such person an agent of the state, is a reasonable means for collection of the tax." (*Id.* at p. 488.)

constitutional power to raise revenue through taxes. This power is an "essential attribute of its existence" (*Ainsworth*, *supra*, 34 Cal.2d at p. 472), and it would be "meaningless" (*City of Modesto*, *supra*, 34 Cal.App.3d at p. 508) if the city was prohibited from taking reasonable steps to collect the tax. Frequently, the city will have no practical means of collecting the tax itself (see *City of Modesto*, at p. 508), and requiring consumers to self-report their tax liability would simply invite extensive fraud (see *Moe*, *supra*, 425 U.S. at p. 482).

The interests of the state agency tasked with collection are, by contrast, less compelling. Receiving and remitting the particular tax at issue in this case is a "minimal burden" (*Moe*, *supra*, 425 U.S. at p. 483), particularly where, as in *City of Modesto*, the agency tasked with collection is reimbursed by the city for all of its associated administrative costs (*City of Modesto*, *supra*, 34 Cal.App.3d at pp. 508–509). Neither the universities' ability to pursue their broadly defined educational mission nor their ability to construct and manage on-campus parking operations depends on whether state employees collect a parking tax or the city undertakes the expense to collect the tax itself.

For these reasons, we conclude that San Francisco's parking tax collection requirement, as applied to the state universities, does not violate principles of state sovereignty embodied in the California Constitution. The universities maintain the autonomy to manage their property as they wish, and the universities have failed to demonstrate that the minimal burden associated with collecting and remitting the parking tax poses a risk of substantial interference with their ability to carry out their governmental functions. We must, in any event, recall that it is ultimately the People of the State of California who are its "highest sovereign power." (*Oakland Paving*

Co. v. Hilton (1886) 69 Cal. 479, 514.) The universities exercise those powers granted to them by the People of this state, just as the charter cities exercise those powers granted to them by the People. If San Francisco's tax collection requirement offends state sovereignty, it must be because the requirement in some way offends or disadvantages the People's interests. For reasons already explained, that is not the case here.

V.

We conclude charter cities may require state agencies to assist in the collection and remittance of municipal taxes. Levying taxes to raise revenue is an archetypal municipal affair, and a power secured by the home rule provision of the state Constitution. Requiring public parking lot operators to collect municipal taxes along with parking fees, and to remit the taxes owed, represents no more than a de minimis administrative burden on the state agencies. San Francisco's collection requirement is a valid exercise of its power, from which the universities are not immune.

We reverse the judgment of the Court of Appeal and remand for further proceedings consistent with this opinion.

KRUGER, J.

We Concur:
CANTIL-SAKAUYE, C. J.
CHIN, J.
CORRIGAN, J.
LIU, J.
CUÉLLAR, J.
BAKER, J.*

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* Associate Justice of the Court of Appeal, Second Appellate District, Division Five, assigned by the Chief Justice pursuant to article VI, section 6 of the California Constitution.

See next page for addresses and telephone numbers for counsel who argued in Supreme Court.

Name of Opinion City and County of San Francisco v. Regents of University of California

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Unpublished Opinion
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Original Proceeding
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Responses to Comments

The following table contains the responses to the comments numbered in the letter above.

Comment Topic	Comment Response
Aleshire & Wynder, LLP on behalf of the City of Carson	
Introduction	California State University, Dominguez Hills (CSUDH) received the "follow-up" comment letter submitted by Aleshire & Wynder LLP on behalf of the City of Carson, dated July 10, 2019, regarding CSUDH's Draft EIR. Under CEQA Guidelines Section 15105, CSUDH was required to provide a 45-day public review period on the Draft EIR. In order to provide additional time, CSUDH instead afforded 63 days for public review and comment. The public comment period for the Draft EIR commenced on February 11, 2019, and ended on April 15, 2019, 2019. All comment letters received after expiration of the public review and comment period ending on April 15, 2019, are considered late comments. A lead agency is required to consider comments on the Draft EIR and to prepare written responses if a comment is received within the public comment period. (Pub. Resources Code, §21091(d); CEQA Guidelines, §15088.) When a comment letter is received after the close of the public comment period, however, a lead agency does not have an obligation to respond. (Pub. Resources Code, §21091(d)(1); Pub. Resources Code, §21092.5(c).) Accordingly, CSUDH is not required to provide a written response to late comment letters, including the July 10, 2019, letter from Aleshire & Wynder LLP. (See, CEQA Guidelines, §15088(a)). Nonetheless, for information purposes, CSUDH has elected to respond to this late letter, but without waiving its position that written responses to late letters are not required by law.

Comment Topic	Comment Response
The Comment Letter Addresses The Same Issues Already Raised by the City of Carson	The comment letter starts with a statement regarding the scope of comments included in its original comment letter, dated April 15, 2019. Specifically, the comment letter states that the City's prior comment letter addressed the purported application of the City's land use regulations and permitting authority, and application of the City's Interim Development Impact Fees (IDIF) and Citywide Community Facilities District (CFD), to the development of the University Village portion of the CSUDH Campus Master Plan project. CSUDH has provided written response to this prior comment in its responses to Comment CAR-3, Comment CAR-4, Comment CAR-5, and Comment CAR-6. The comment letter simply restates these same comments and argues that the recent California Supreme Court decision in City and County of San Francisco v. The Regents of University of California (June 20, 2019, S242835) __ Cal.5th __ (City and County of San Francisco) supports its position as stated in its prior comment letter. As addressed herein, City and County of San Francisco, supra, does not lend support to the City's comments, and the comments still do not address the adequacy of the environmental analysis included in the Draft EIR for CSUDH's 2018 Campus Master Plan project.
The Comment Letter Addresses Issues Not Involving the Adequacy of the Environmental Analysis Included in the Draft EIR	The comment letter states that the recent California Supreme Court decision in *City and County of San Francisco v. Regents of University of California*, provides "even more support for the application of local land use regulations, permitting authority and development fees of a charter city, such as the City of Carson, to the University Village portion of the Master Plan." CSUDH disagrees with this statement. *City and County of San Francisco, supra,* did not address the application of local land use regulations, local permitting authority, or imposition of development impact fees by a local agency on a project in which the State of California is the lead agency and the project involves property owned entirely by the State of California. Instead, the Supreme Court decision addressed the very narrow question of whether the California Constitution permits the City and County of San Francisco (San Francisco) to require state universities to *collect* San Francisco's parking tax charged to third party users (and not charged to the state universities) who park their cars in paid parking lots on state university campuses. (*City and County of San Francisco, supra,* (June 20, 2019, S242835) __ Cal.5th __ [2019 Cal. Lexis 673.]) The decision specifically highlights the fact that the

Comment Topic	Comment Response
	parking tax is not being charged to state universities or to state university projects, but is instead being charged to individual users who park on state university campuses. The comment letter states, without supporting citation, "the Legislature has not specifically authorized CSU to engage in real estate development open to the public and the market generally, as is contemplated in University Village." CSUDH disagrees with this statement on multiple grounds. First, regarding the City's incomplete and inaccurate characterization of the University Village portion of the project, this portion of the project is described in detail in Chapter 2.0, Project Description of the EIR (See Draft EIR, Chapter 2.0 Project Description, pages 2.0-7-2.0-8.) More specifically, the Draft EIR identifies the University Village as having the following attributes: The University Village project component, occupying the eastern-most 76.5 acres, is a new planned mixed-use campus development that would include: • **new retail uses** to support both the Core Campus and the University Village, including on-street parking and parking in structures; • **new housing** including market-rate apartments, which will provide housing for faculty and staff, students, and the general public; • **business park development** targeted to uses compatible with and supportive of the University's educational mission; • **open space areas** for informal activities, leisure, gathering and recreation including a new one-acre park; • **preservation** of an existing natural reserve area; and

Comment Topic	Comment Response
	• **reconfigured vehicle circulation** including an extension of Birchknoll Drive and reconfigured vehicle access from Central Avenue. (See Draft EIR, Chapter 2.0 Project Description, pages 2.0-7-2.0-8.) Contrary to the comment letter's statement, CSU is well within its defined powers in planning and implementing the University Village portion of the CSUDH Campus Master Plan. The Donahoe Higher Education Act created the public higher education system that includes the CSU and each campus administered by its Board of Trustees (Board). (Cal. Educ. Code §§ 66002, 66010, 66600.) The 25-member Board adopts regulations and policies governing the entire CSU system and is vested with "full power and responsibility in the construction and development of any state university campus, and any buildings or other facilities or improvements connected with the California State University." (Cal. Educ. Code § 66606.) The development, adoption, and implementation of the CSUDH 2018 Campus Master Plan for the CSUDH campus is within the exclusive powers explicitly provided to the CSU Board of Trustees. The comment letter also states that "the Supreme Court was not persuaded by the argument that this legislative authorization controlled and concluded no provision of the state Constitution expressly resolved the issue with respect to a charter city. (page 9)[sic]" In response, this comment is unclear as there is no reference to this subject matter at page 9 of the *City and County of San Francisco* decision. Furthermore, given the Supreme Court's focus on the narrow question presented of whether the California Constitution permitted San Francisco to apply a parking tax *collection* requirement on state universities with respect to San Francisco's parking tax on drivers who park their cars in paid parking lots, the comment letter does not clearly explain how this comment relates to the adequacy of the environmental analysis of the CSUDH Campus Master Plan project as provided in the Draft EIR.

Comment Topic	Comment Response
	The comment letter also states: "[t]he Supreme Court looked to cases stating 'the law does not forbid a government from imposing a tax on private third parties who happen to do business with another government (provided, that is, the tax does not discriminate against the parties because they are doing business with the government).' (page 9, first emphasis added)." The comment letter continues in the next sentence to conclude, without support or explanation, "similarly, the law would not prevent the City from applying its normal permitting and development process, development impact fees and other fees, to developers doing business with the CSU in developing University Village. Aside from not clearly identifying how this statement constitutes a comment regarding the adequacy of the environmental analysis provided in the Draft EIR, this statement is not supported by *City and County of San Francisco, supra,* and the comment letter does not explain how the Supreme Court's analysis of the collection and enforceability of a local parking tax would have any legal impact on the ability of a local agency to enforce its permitting and development processes, development impact fees, and "other fees" on the CSU, which is the State of California acting in its sovereign capacity, in regards to the implementation of a master plan on a CSU campus. Moreover, contrary to the position stated in the comment letter, the Supreme Court explained the limits of its decision regarding the San Francisco parking tax in stating the following: > [w]e addressed a similar issue in *Hall, supra*, 47 Cal. 2d 177, in which we held that a school district organized under state laws was exempt from building regulations promulgated by a nonchartered city. We explained that under the California Constitution, "[t]he public schools of this state are a matter of statewide rather than local or municipal concern" (*id*. at 179); furthermore, we observed, the state has occupied the field of the construction of school buildings (*id*. at pp. 184, 188). Citing *Means*, we explained that, as a general rule, when the state "engages in such sovereign activities as the construction and maintenance of its buildings. . .it is not subject to local regulations unless the Constitution says it is or the Legislature has consented to such regulation." (*Hall*, at p. 183.) So, too, with the

Comment Topic	Comment Response
	construction of school buildings by school districts that act as state agencies for the operation of the local school system. (*Ibid*.; see *id*. at p. 1818.) (*City and County of San Francisco, supra,* (June 20, 2019, S242835) __ Cal.5th __ [2019 Cal. Lexis 681.]) In reaching its decision that a state agency can be required to assist a local governmental agency in collecting a parking tax imposed on third parties, the Supreme Court further noted: *Means* and *Hall* tell us that in the event of a conflict between a municipality's view of, say, how best to build a parking lot, and the state's ability to decide for itself what sort of parking lot would best serve its needs, the state's prerogatives must prevail. But the *Means* and *Hall* cases do not hold that state agencies are categorically beyond the reach of any local law, no matter how inobtrusive, including one that does no more than require assistance in collecting a concededly valid tax on third parties. (*City and County of San Francisco, supra,* (June 20, 2019, S242835) __ Cal.5th __ [2019 Cal. Lexis 681.]) The comment letter also notes that the Supreme Court "conclude[ed]: 'it is permissible for a municipality to tax such *private activities* even though the tax imposes an indirect economic burden on the state government.' (page 11, emphasis added)." Then without any support, further citation or analysis, the comment letter concludes: "similarly, the application of the City's normal permitting and development process, development impact fees and other fees, to developers in connection with the University Village is not prohibited and is a logical consequence of our federalist system's overlapping government jurisdictions, even though that might impose some sort of economic burden on CSU. (page 12, 13)." CSUDH disagrees with this comment, and also notes

Comment Topic	Comment Response
	the comment lacks a clear connection to the adequacy of the environmental analysis provided in the Draft EIR, and also lacks any clear meaning in the context of the CSUDH 2018 Campus Master Plan. Finally, the comment letter references the *Board of Trustees v. City of Los Angeles* (1975) 49 Cal.App.3d 45. However, *Board of Trustees v. City of Los Angeles* (1975) 49 Cal.App.3d 45 addressed whether a private circus conducted on property owned by CSU was required to obtain applicable circus permits from the local jurisdiction. (*Id*., at pp. 47-48.) The appellate court reasoned that the Board's leasing of university property to the circus was "to amuse and entertain the public" and it had "no relation to the governmental function of the university" and was thus subject to local permitting requirements for circuses. (*Id.,* at p. 50.) In short, *Board of Trustees* is not pertinent to an analysis of the Draft EIR for the CSUDH 2018 Campus Master Plan. The comment letter also states: "[t]he only circumstance in which the Supreme Court held local law would not apply is one in which state law has clearly pre-empted local regulation. (page 14)." In response, this comment is not a fair or accurate representation of the discussion at Page 14 of the *City and County of San Francisco* decision. Instead, the Supreme Court stated: "[t]he only *municipal tax case* in which we have invalidated a city's assertion of the power to tax parties regulated by or doing business with the state is *California Fed. Savings & Loan Assn. v. City of Los Angeles* (1991) 54 Cal.3d 1 (*California Federal*)." (*City and County of San Francisco*, *supra*, (June 20, 2019, S242835) __ Cal.5th __ [2019 Cal. Lexis 678.], emphasis added.) As noted above, *City and County of San Francisco, supra,* involved the analysis of a parking tax, and this particular statement from the decision also addressed the validity of a municipal tax. The comment letter does not explain why or how the Supreme Court's statement regarding the invalidation of a local tax on parties doing business with the State of California is pertinent as a comment regarding and adequacy of the environmental analysis provide in the Draft EIR for the CSUDH 2018 Campus Master Plan. Given the lack of explanation provided in the comment letter in this regard, CSUDH has no further response to this particular comment.

Comment Topic	Comment Response
The Conclusion of the Comment Letter Lacks Important Details and Analysis	In its concluding paragraph, the comment letter states as follows: "[a]ccordingly, mitigation measures proposed in the EIR for the CSUDH Master Plan should include compliance by private developers who are involved with the University Village portion of the Master Plan with all applicable City land use ordinances, planning, permitting, and development requirements, including payment of development impact fees and participation in the Community Facilities District, to the same degree as if the projects they are developing were not located on the CSU campus." In response, and as stated in more detail below, this concluding statement does not clearly identify specific comments regarding the Draft EIR, does not clearly articulate the scope and extent of the proposed mitigation measures, does not identify the particular environmental impacts which would result in the requirement for the proposed mitigation, and does not clearly identify any basis for the proposition that the additional mitigation measures are required. In response, as a starting point, an EIR must identify and describe any feasible mitigation measures that can be implemented to reduce or avoid each potentially significant environmental effect of the project. (Pub. Res. Code §21100(b)(3); CEQA Guidelines Section 15126.4(a)(1).) The comment letter does not explain how its proposed mitigation measures would reduce or avoid a potentially significant environmental effect, and does not even explain the particular significant environmental effect or effects which the proposed mitigation is intended to address. In addition, the proposed mitigation lacks detail regarding its particular components, and instead just generally refers to "applicable City land ordinances, planning, and permitting requirements." The comment letter makes no effort to identify any of the purportedly applicable ordinances, planning and permitting requirements. Further, although not made clear by the comment letter, to the extent the proposed mitigation measures are intended to address the effect of the project on public services, the EIR concluded that there were no significant environmental effects relating to public services as a result of the Project (See Draft EIR, Chapter 3.8 Public Services, pages 3.8-18 – 3.8-30.) Finally, the concluding paragraph appears to suggest that the proposed mitigation is required as a result of the City and County of San Francisco decision, but does not explain how the Supreme Court decision supports this conclusion.

1.0 Introduction

Purpose of This Environmental Impact Report

As set forth in the California Environmental Quality Act (CEQA),[1] the purpose of an environmental impact report (EIR) is to identify a project's significant effects on the environment, identify alternatives to a project, and indicate the manner in which significant impacts can be mitigated or avoided (Pub. Resources Code section 21002.1).

This EIR has been prepared for the 2018 Campus Master Plan (proposed project) for California State University (CSU), Dominguez Hills (CSUDH). The proposed project's main objective is to provide for the long-term development of the CSUDH campus in a manner that supports the academic, research, and service needs of students, faculty, and staff; maintains and enhances the campus's capacity as a regional center for intellectual development and cultural activity for students, faculty, and staff; and enhances the student experience and attracts and retains high quality faculty and staff. A detailed description of the proposed project is provided in **Section 2.0**, Project Description, of this EIR.

In order to be approved and implemented, the proposed project requires that discretionary action be taken by the CSU Board of Trustees. Therefore, in accordance with Public Resources Code Section 21080, the proposed project is subject to environmental review requirements under CEQA. For purposes of complying with CEQA, the CSU Board of Trustees is the Lead Agency for the proposed project. (CEQA Guidelines sections 15050-15053.)[2]

In accordance with Section 15121(a) of the CEQA Guidelines, this EIR is an informational document that will inform the CSU Board of Trustees and the public of: (1) the significant environmental effects of the proposed project; (2) possible ways to minimize any significant effects; and (3) reasonable alternatives to the project. Thus, the EIR is an important document that is ultimately used by the CSU Board of Trustees when considering whether to approve, deny, or modify the proposed project.

This EIR has been prepared in conformance with CEQA and the CEQA Guidelines. CEQA Guidelines Section 15151 defines the standards for EIR adequacy as follows:

> An EIR should be prepared with a sufficient degree of analysis to provide decision-makers with information which enables them to make a decision which intelligently takes account of environmental consequences. An evaluation of the environmental effects of a proposed project need not be exhaustive, but the sufficiency of an EIR is to be reviewed in the light of what is reasonably feasible. Disagreement among experts does not make

[1] CEQA is located at Section 21000 et seq. of the Public Resources Code.

[2] The CEQA Guidelines are located at Section 15000 et seq. of Title 14 of the California Code of Regulations.

> an EIR inadequate, but the EIR should summarize the main points of disagreement among the experts. The courts have looked not for perfection but for adequacy, completeness, and a good faith effort at full disclosure.

This EIR is intended to serve as a program EIR in accordance with CEQA Guidelines Section 15168, which provides that:

> A program EIR is an EIR which may be prepared on a series of actions that can be characterized as one large project and are related either:
>
> (1) Geographically,
>
> (2) As logical parts in a chain of contemplated actions,
>
> (3) In connection with issuance of rules regulations, plans, or other general criteria to govern the conduct of a continuing program, or
>
> (4) As individual activities carried out under the same authorizing statutory or regulatory authority and having generally similar environmental effects which can be mitigated in similar ways.

Section 15168 recognizes that program EIRs offer a number of advantages, when contrasted to the preparation of separate EIRs, as they allow for a more thorough consideration of environmental and policy issues for inter-related actions.

This EIR specifically addresses the 2018 Campus Master Plan's series of University-related actions within three areas of the 344-acre campus. The actions can be characterized as one large project within a defined geography as all project components relate to proposed improvements at the CSUDH campus designed and intended to further the University's educational mission. As described in **Section 2.0** of this EIR, the proposed project would include the development of new and expanded facilities in areas referred to as the Core Campus, the University Village, and the StubHub Center. The EIR evaluates the potential short-term (during construction), long-term (post-construction), direct, indirect and cumulative environmental impacts associated with these campus development elements based on the location, scale and use attributes of the proposed development. The analysis provided is specific and comprehensive as information relevant to the determination of potential environmental impacts associated with the proposed project's development components is available. For example, the disturbance and development footprints of the proposed project are known, as well as the location and quantities of non-residential square footage, student housing, ~~market-rate~~campus apartment housing, and other campus support facilities.

This EIR is intended to provide the CSU Board of Trustees with the environmental information on the proposed project to make a final decision on CEQA compliance for the proposed project. This EIR is also intended to support approvals by other agencies, where needed.

Environmental Review Process

In accordance with CEQA Guidelines Section 15063, CSU prepared an Initial Study (dated July 2017) for the proposed project that identified the topics to be analyzed in this EIR. Relatedly, in

compliance with CEQA Guidelines Section 15082, CSU prepared and distributed a Notice of Preparation (NOP) of an EIR to the State Clearinghouse at the California Governor's Office of Planning and Research, various public agencies, and other interested parties for the required 30-day review and comment period (which commenced on August 17, 2017 and closed on September 15, 2017). A Scoping Meeting was held on September 6, 2017 at the Loker Student Union to facilitate public review and comment on the proposed project and its Initial Study. The Initial Study, NOP, comments received by CSU in response to the NOP, and comments provided during the Scoping Meeting are contained in **Appendix A** of this EIR.

Based on the review of environmental issues considered via the NOP/Initial Study process, this EIR analyzes the following environmental topics:

- Aesthetics
- Air Quality
- Biological Resources
- Cultural Resources
- Greenhouse Gases
- Noise
- Population and Housing
- Public Services and Recreation
- Traffic and Circulation
- Utilities and Service Systems

The Initial Study found the proposed project would not result in significant impacts to agriculture and forestry resources, geology and soils, hazards and hazardous materials, hydrology and water quality, land use and planning, or mineral resources; as a result, these topics are not addressed in the EIR.

This EIR was prepared under the direction and supervision of CSUDH, as well as the CSU Chancellor's Office. During the 45-day public review period required by CEQA Guidelines Section 15105, written comments concerning the adequacy of the EIR may be submitted by interested public agencies and members of the public to:

Jay Bond
University Planning Consultant
California State University, Dominguez Hills
1000 East Victoria Street
Carson, CA 90747
Masterplan2018@csudh.edu

Please refer to the Notice of Availability of the Draft EIR for additional information regarding the public review process, including identification of where the Draft EIR is available for review and the start and end dates of the public review period.

Upon conclusion of the public review and comment period, written responses to all written comments pertaining to environmental issues will be prepared as part of the Final EIR. If appropriate, edits to the EIR also will be made. As required by CEQA, responses to comments submitted by responsible public agencies will be distributed to those agencies for review prior to consideration of the Final EIR by the CSU Board of Trustees.

As required by CEQA Guidelines Section 15097, a Mitigation Monitoring and Reporting Program (MMRP) also will be prepared prior to project approval. The MMRP will include all mitigation measures identified in the EIR; the entity responsible for implementing each measure; the timing associated with each measure; and, any follow-up reporting requirements. Upon completion of the Final EIR and other required documentation, the CSU Board of Trustees will consider whether to certify the EIR and approve the proposed project. At that time, environmental considerations and economic, social and other factors will be weighed by the CSU Board of Trustees when determining the selected course of action.

Organization of the ~~Draft~~ Final Environmental Impact Report

The EIR is comprised of the following sections:

Executive Summary. This section provides a summary of the project description, alternatives to the project, environmental impacts, and mitigation measures.

Preface. This section includes a summary of all substantive revisions made to the EIR's analysis, as well as the supporting documents used to make those revisions.

Response to Comments. This section includes a list of all commenters to the DEIR, their written comment letters, and the responses to comments.

1.0 Introduction. This section briefly discusses the purpose of the EIR, identifies the environmental issues assessed in the EIR, and describes the environmental review process and organization of the EIR.

2.0 Project Description. This section provides a detailed description of the proposed project, including the project location, characteristics, objectives, and required discretionary actions.

3.0 Environmental ~~Impact~~ Analysis. This section presents the regulatory setting, environmental setting, project and cumulative impact analyses, mitigation measures, and conclusions regarding the level of significance after mitigation for each environmental impact issue.[3]

4.0 Other Environmental Considerations. This section provides a discussion of significant unavoidable impacts that would result from the proposed project and the reasons why the project is being proposed notwithstanding the significant unavoidable impacts. An analysis of the significant irreversible changes in the environment and potential secondary effects that would result from the proposed project also is presented. In addition, this section

[3] As a state agency, CSU is not subject to local government planning regulations, policies and guidelines. Notwithstanding, where feasible, CSU considers the planning documents of local agencies. For this reason, the EIR references certain City of Carson planning documents, such as the City's General Plan. Nonetheless, A~~a~~ny reference to local planning documents provided in this EIR is provided for informational purposes only, unless otherwise noted.

analyzes the project's potential growth-inducing impacts, which could foster economic or population growth or the construction of additional housing, either directly or indirectly, in the surrounding environment. Potential secondary effects caused by implementation of the project's mitigation measures are also addressed. Finally, a discussion of possible effects of the project that were determined not to be significant within the Initial Study is provided.

5.0 Project Alternatives. This section provides an analysis of a range of reasonable alternatives to the proposed project.

6.0 References. This section lists all the references and sources used in the preparation of the EIR.

7.0 List of EIR Preparers and Organizations/Persons Consulted. This section lists the persons and organizations that contributed to and were consulted in conjunction with preparation of this EIR.

The EIR also includes appendices that consist of technical and other documentation that is relevant to the environmental analyses provided.

2.0 Project Description

Introduction

The purpose of this section is to describe the proposed project in a manner that will be meaningful for review by the public, reviewing agencies, and decision makers in accordance with the California Environmental Quality Act, Public Resources Code sections 21000 et seq. (CEQA) and the CEQA Guidelines (14 Cal.Code Regs., §§ 15000, et seq.). For purposes of CEQA, a complete project description must contain the following information: (a) the precise location and boundaries of the proposed project, shown on a detailed map, along with a regional map of the project's location; (b) a statement of the objectives sought by the proposed project, which should include the underlying purpose of the project; (c) a general description of the project's technical, economic, and environmental characteristics; and, (d) a statement briefly describing the intended uses of the EIR, including a list of the agencies that are expected to use the EIR in their decision making, a list of permits or other approvals required to implement the project, and a list of related environmental review and consultation requirements imposed by federal, state, or local laws, regulations, or policies. (CEQA Guidelines § 15124.) The description of the project should not supply extensive detail beyond that needed for evaluation and review of environmental impacts. This section of the EIR includes the required information, and later sections provide additional detail on these topics.

Project Overview

The project is the adoption and implementation of the California State University, Dominguez Hills (CSUDH or University) 2018 Campus Master Plan (proposed project). The proposed project retains the previously approved future campus enrollment of 20,000 full-time-equivalent students (FTES), while providing a framework for development of the University's physical campus and its facilities to accommodate campus enrollment growth from its current enrollment of approximately 11,000 FTES to 20,000 FTES over a planning horizon extending to 2035.[1] In conjunction with the proposed project, CSUDH also has prepared its Guidelines for the 2018 Campus Master Plan (Guidelines) to support and advance the University's vision of developing a vital campus that supports the facilities, buildings, improvements, and services needed for a top-performing model urban university to serve up to 20,000 full-time students. The Guidelines explain the vision, goals, and planning process for the proposed project, and include landscape design, sustainability, and design guidelines to be used by CSUDH to guide development

1 The 2016 campus enrollment was approximately 11,000 FTES with a headcount of over 14,000 total students. www.csudh.edu/Assets/CSUDH-Sites/Academic-Senate/docs/insidethesenate/academic-senate/Presentations/ENROLLMENT%20UPDATE%20Senate%202017.pdf (last accessed April 17, 2018).

of the physical campus and its facilities over the next 15-20 years.[2] The ~~proposed 2018~~ Campus Master Plan is depicted in **Figure 2.0-1**, which identifies existing and planned facilities on the campus.

The Campus Master Plan was approved by the CSU Board of Trustees in May 2010. The 2010 Campus Master Plan is depicted in **Figure 2.0-2**. As reflected in **Figure 2.0-2**, the 2010 Campus Master Plan provided for a number of new facilities and improvements comprising academic, student support, housing, and campus support facilities, and anticipated development on the west side of the campus in the StubHub Center[3], including a hotel and new training facilities.

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2 The Guidelines are a campus planning tool; they are not part of the proposed project's discretionary approvals to be considered by the CSU Board of Trustees.

3 Although the StubHub Center was renamed as Dignity Health Sports Park effective January 2019, it is referred to herein as the StubHub Center to ensure clarity and consistency between this EIR, and other documents such as the Guidelines.

Figure 2.0-1

~~2018~~ Campus Master Plan (Updated)

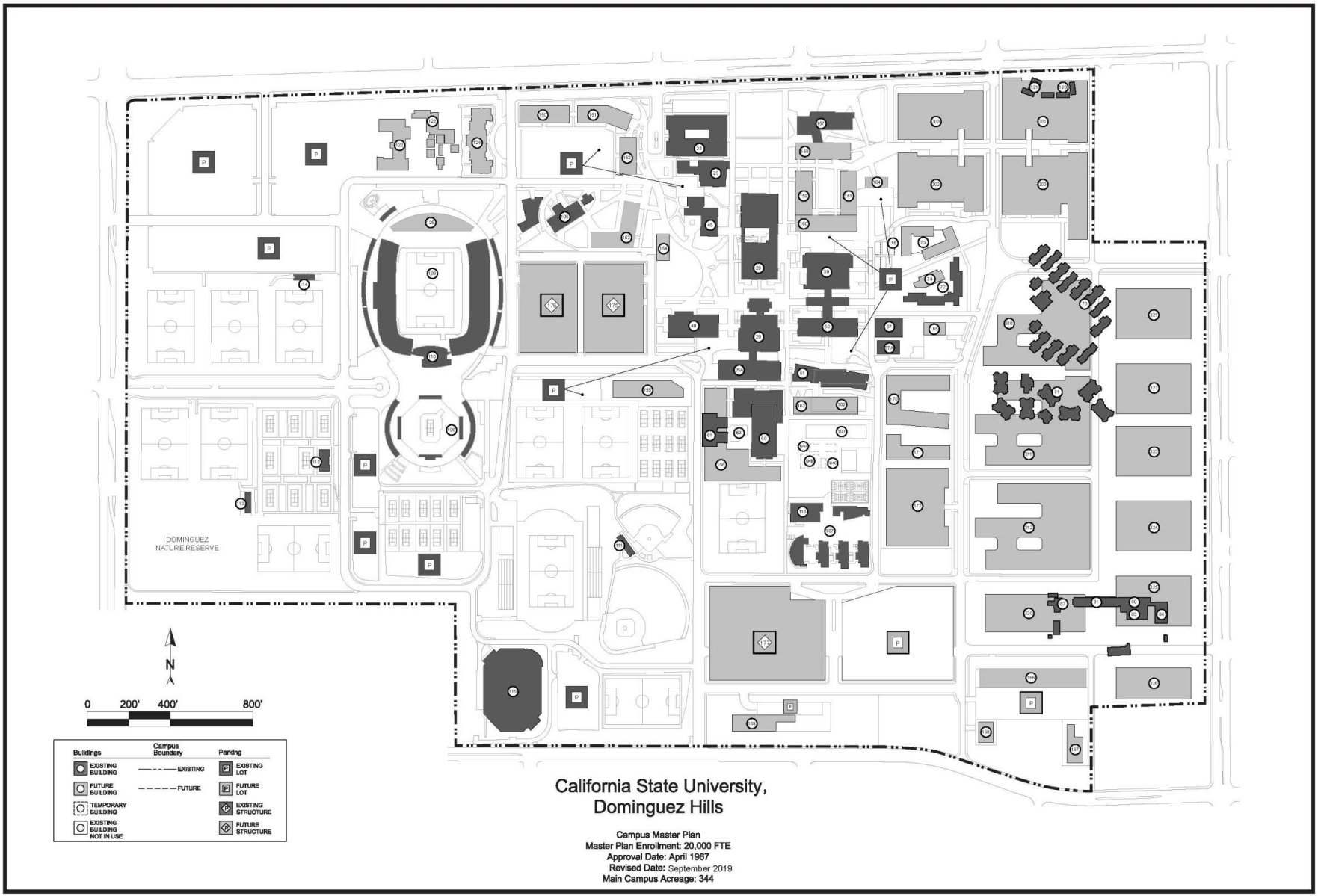


Figure 2.0-1

~~2018~~ Campus Master Plan (Continued)(Updated)

California State University, Dominguez Hills

Master Plan Enrollment: 20,000 FTE

Master Plan approved by the Board of Trustees: April 1967

Master Plan Revision approved by the Board of Trustees: August 1968, July 1971, May 1975, March 1976, March 1980, November 1980, November 1986, March 1993, June 2001, May 2005, May 2010,

20. Leo F. Cain Library
20A. Library Expansion, Phase 1
23. James L. Welch Hall
25. Student Health Center
26. Donald P. and Katherine B. Loker Student Union
30. Social and Behavioral Sciences
40. LaCorte Hall
45. University Theatre
50. Natural Sciences and Mathematics
51. Science and Innovation
60. Gymnasium
61. Field House
63. Swimming Pool
70. Pueblo Dominguez (Student Housing 1)
71. Pueblo Dominguez (Student Housing 2)
72. Student Housing, Phase II
73. *Student Housing, Phase III*
74. *Dining Services*
80. Physical Plant
81. Physical Plant Shops
82. Physical Plant Vehicle Maintenance
83. University Warehouse
84. Physical Plant Warehouse
87. Central Plant
87A. *Central Plant Expansion I*
102. South Academic Complex 2
103. South Academic Complex 3
104A. Classroom Village Modular Unit
104B. Classroom Village Modular Unit
104C. Classroom Village Modular Unit
106. Extended Education
107. California Academy of Mathematics and Science
108. AEG Soccer Stadium
109. AEG Tennis Stadium
110. AEG Administrative/Sports Support Facility/ Restaurant
111. Baseball/Softball Storage and Restrooms
112. Tennis Pavilion
113. AEG Tennis Storage/Restrooms
114. AEG Soccer Storage/Restrooms
115. ADT Event Center (250 Meter Velodrome)
116. East Academic Complex
118. California Academy of Mathematics and Science, Phase II
120. Child Development Center
121. Infant Toddler Center
122. *Office Complex and Field House/ Training Facility for AEG*
123. *Dormitories for AEG*
124. *Conference Center/Hotel for AEG*
125. *Seating Expansion*
150. *Academic Building A*
151. *Academic Building B*
152. *Academic Building C*
153. *Academic Building D*
154. *Black Box Theater*
155. *Academic Building E*
156. *Student Recreation Center*
157. Innovation & Instruction
158. *Academic Building F*
159. *Student Union Expansion*
160. *Academic Building G*
161. *Academic Building H*
163. *Academic Building I*
164. *Satellite Central Plant*
165. *Central Plant Expansion II*
166. *Physical Services*
167. *66kV Substation*
168. *Fab Lab Garage*
169. *New Child Care*
170. *Student Housing*
171. *Student Housing*
172. *Residential*
175. *Parking Structure 1*
176. *Parking Structure 2*
177. *Parking Structure and Police*
300-303. *Residential/Retail/Parking*
310 *Residential/Parking*
311. *Residential/Parking*
312. *Residential/Parking Inc. Faculty/Staff Housing*
320-326. *Campus Business Park*

LEGEND:
Existing Facility / *Proposed Facility*

NOTE: Existing building numbers correspond with building numbers in the Space and Facilities Data Base (SFDB)

Figure 2.0-2

2010 Campus Master Plan

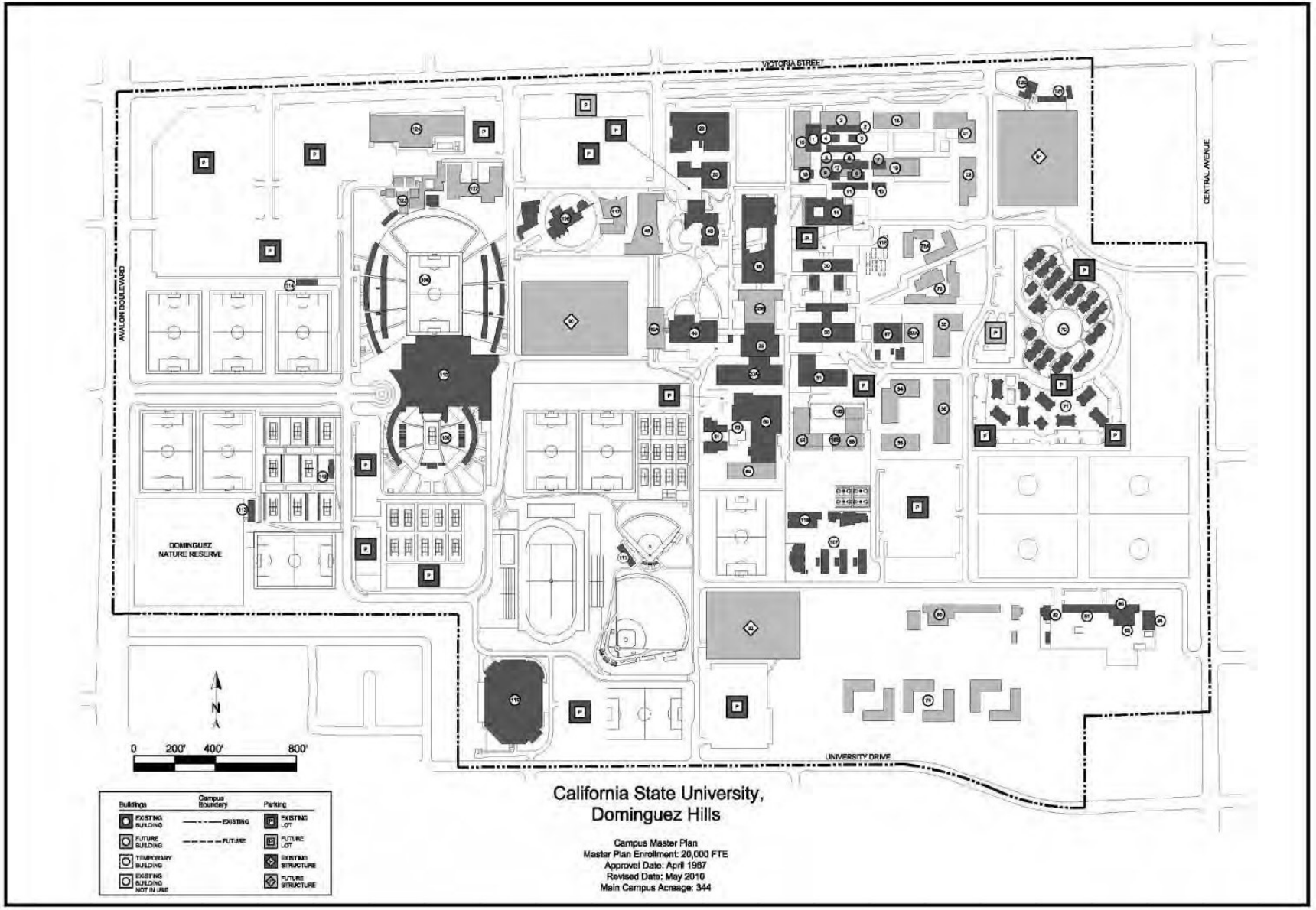


Figure 2.0-2

2010 Campus Master Plan (Continued)

California State University, Dominguez Hills

Master Plan Enrollment: 20,000 FTE

Master Plan approved by the Board of Trustees: April 1967

Master Plan Revision approved by the Board of Trustees: August 1968, July 1971, May 1975, March 1976, March 1980, November 1980, November 1986, March 1993, June 2001, May 2005, May 2010

1. Small College Complex 1
2. Small College Complex 2
3. Small College Complex 3
4. Small College Complex 4
5. Small College Complex 5
6. Small College Complex 6
7. Small College Complex 7
8. Small College Complex 8
9. Small College Complex 9
10. Small College Complex 10
11. Small College Complex 11
13. Small College Complex 13
14. School of Education
15. *Academic Building*
16. *Academic Building*
17. *Academic Building*
18. *Academic Building*
19. *Academic Building*
20. Leo F. Cain Library
20A. Educational Resource Center Addition
20B. *Library Expansion, Phase 2*
21. *Academic Building*
22. *Academic Building*
23. James L. Welch Hall
25. Student Health Center
26. Donald P. and Katherine B. Loker Student Union
30. Social and Behavioral Sciences
31. *Academic Building*
32. *Academic Building*
33. *Academic Building*
34. *Academic Building*
35. *Academic Building*
40. LaCorte Hall
40A. *LaCorte Hall Expansion*
45. University Theatre
46. *Auditorium*
50. Natural Sciences and Mathematics
51. Center for Science and Innovation
52. *Academic Building*
53. *Academic Building*
54. *Academic Building*
55. *Academic Building*
56. *Academic Building*
60. Gymnasium
61. Field House
62. *Student Recreation Center*
63. Swimming Pool
70. Pueblo Dominguez (Student Housing 1)
71. Pueblo Dominguez (Student Housing 2)
72. *Student Housing, Phase I*
72A. *Student Housing, Phase II*
74. *Faculty and Staff Housing*
80. Physical Plant
81. Physical Plant Shops
82. Physical Plant Vehicle Maintenance
83. University Warehouse
84. Physical Plant Warehouse
85. *Physical Plant Expansion*
86. *Co-Generation Plant*
87. Central Plant
87A. *Co-Generation Plant*
90. *Parking Structure 1*
91. *Parking Structure 2*
92. *Parking Structure 3*
100. South Academic Complex 1
102. South Academic Complex 2
103. South Academic Complex 3
105. Hughes Athletic and Educational Center
106. Extended Education
107. California Academy of Mathematics and Science
108. AEG Soccer Stadium
109. AEG Tennis Stadium
110. AEG Administrative/Sports Support Facility/ Restaurant
111. Baseball/Softball Storage and Restrooms
112. Tennis Pavilion
113. AEG Tennis Storage/Restrooms
114. AEG Soccer Storage/Restrooms
115. ADT Event Center (250 Meter Velodrome)
116. East Academic Complex
117. *Extended Education, Phase II*
118. California Academy of Mathematics and Science, Phase II
120. Child Development Center
121. Infant Toddler Center
122. *Office Complex and Field House/ Training Facility for AEG*
123. *Dormitories for AEG*
124. *Conference Center/Hotel for AEG*

LEGEND:
Existing Facility / *Proposed Facility*

NOTE: Existing building numbers correspond with building numbers in the Space and Facilities Data Base (SFDB)

The proposed project — the 2018 Campus Master Plan — revises and updates the 2010 Campus Master Plan and will be presented to the CSU Board of Trustees for the Board's consideration and possible approval.

The proposed project entails the development of new and expanded facilities in three areas of the 344-acre campus: (i) the Core Campus; (ii) the University Village; and the StubHub Center. In summary, the proposed project encompasses the following development components:

The Core Campus, occupying the central 179.5 acres and extending from Victoria Street to University Avenue, is planned to make best use of existing campus facilities and to identify the most appropriate sites for new facilities and improvements needed to support the academic life of a 20,000 FTES campus. The proposed project includes the following planned development of the Core Campus:

- **twelve new academic and administrative facilities**, providing classrooms, laboratories, faculty and administrative offices, new performing arts facilities; a new incubator/research facility; and facilities for accommodating CSUDH's new mobile Fabrication Lab vehicles;
- **student support facilities**, including an expansion of the Loker Student Union, new student apartment housing, and a new student recreation center;
- **athletic facilities** including a remodeled gymnasium and existing and new playfields;
- **campus support facilities,** including a new, expanded Child Care Center; new Facilities Services offices and yards; expansion of the existing Central Plant; a satellite central plant; and a new electric substation;
- **parking facilities** to accommodate 20,000 FTES, including reconfigured surface lots and new parking structures;
- **reconfigured campus entries** at both north and south, including new campus visitor services and reconfigured vehicle access to parking facilities;
- **open space areas** for campus activities, programmed and informal gathering and recreation; and
- **existing natural reserve areas** and a new area for an urban farm project.

The University Village project component, occupying the eastern-most 76.5 acres, is a new ~~planned mixed-use~~ campus development that would include:

- **new retail uses** to support both the Core Campus and the University Village, including on-street parking and parking in structures;
- **new housing** including ~~market-rate~~ campus apartments housing, which will provide housing for faculty and staff, students, and the general public;
- **campus business park development** targeted to uses compatible with and supportive of the University's educational mission;

- **open space areas** for informal activities, leisure, gathering and recreation including a new one-acre park;
- **preservation** of an existing natural reserve area; and
- **reconfigured vehicle circulation** including an extension of Birchknoll Drive and reconfigured vehicle access from Central Avenue.

The StubHub Center, occupying the western-most 88 acres of the campus, currently includes an existing stadium, and will include additional facilities previously approved as part of the 2010 Campus Master Plan. The proposed project includes the following with respect to the StubHub Center:

- **stadium capacity will be increased** by 3,000 seats. Currently, the stadium has seating for 27,000 spectators when configured for the Los Angeles Galaxy Major League Soccer (MLS) games, and will have seating for 30,000 spectators when configured as the temporary home of Los Angeles Chargers National Football League (NFL) games to be held on Sundays and for other events; and
- **reorientation of previously approved facilities** within the StubHub Center, which were approved as part of the 2010 Campus Master Plan. Specifically, the proposed project includes reorientation of Building 122 - Office Complex and Field House/Training Facility; Building 123 – Dormitories; and Building 124 - Conference Center/Hotel. These proposed facilities were originally aligned in a parallel manner on a site between Victoria Avenue and the soccer stadium. Reorientation of these buildings consists of aligning them perpendicular to Victoria Street, with no change in size, square footage, floor area, height, or overall capacity. Further, these facilities will be located in the same area of the StubHub Center consistent with the 2010 Campus Master Plan.

Lead Agency

In accordance with CEQA Guidelines section 15367, the public agency that has the principal responsibility for carrying out or approving a project is referred to as the "lead agency." The CSU Board of Trustees is the lead agency for the proposed project as it has principal responsibility for carrying out and approving the proposed project which is entirely within the boundary of the CSUDH campus. Consistent with the CEQA Guidelines, in January 2018, the Governor's Office of Planning and Research (OPR) also designated CSU as the lead agency for the proposed project.[4]

[4] See letter from Ken Alex, Director, OPR, dated January 26, 2018, which is incorporated by reference and available for public inspection upon request to CSUDH. The City of Carson filed a petition for writ of mandate in Los Angeles Superior Court challenging OPR's determination that CSU is the lead agency for the proposed project; in January 2019, the court entered its judgment in favor of CSU, and denied all claims raised by the City of Carson.

Responsible Agencies

CEQA Guidelines section 15381 provides that a public agency other than a lead agency that has or may have discretionary approval power over aspect(s) of a project is considered a "responsible agency." If the CSU Board of Trustees approves the proposed project, subsequent implementation of various project components could require discretionary approval authority from responsible agencies. The responsible agencies may include, but are not limited to, those listed below. For information regarding Project approvals and permits that may be requested from such agencies, please see sub-section below titled, "EIR Intended Uses/Project Actions and Approvals."

- City of Carson
- California Water Service Company
- Sanitation Districts of Los Angeles County
- Regional Water Quality Control Board
- California Department of Fish and Wildlife
- U.S. Army Corp of Engineers
- U.S. Department of Fish and Wildlife
- Division of State Architect
- State Fire Marshal

Project Objectives

The objectives of the proposed project are rooted in the overall educational mission of the University. The project's main objective is to provide for the long-term development of the campus up to the 2035 planning horizon in a manner that supports the academic, research, and service needs of the University's students, faculty, and staff; maintains and enhances the University's capacity as a regional center for intellectual development and cultural activity for students, faculty, and staff; and enhances the student experience and attracts and retains high quality faculty and staff. Thus, overall, the project purpose/vision is to become a vital physical campus that supports all activities needed for a top-performing Model Urban University accommodating 20,000 FTES in a manner cohesive with the surrounding community and environment.

To achieve the main objective of the proposed project, the following more specific goals and objectives have been considered in developing the proposed project, which will accommodate the projected increase in student enrollment and enable the University to continue to fulfill its educational mission. These specific objectives were identified throughout a comprehensive process guided by the 2018 Master Plan Steering Committee, which was comprised of faculty, administration, students, and staff, with

input from the community and stakeholders throughout a comprehensive public outreach process.[5] The specific objectives of the proposed project are as follows:

- Reinforce the University's focus on teaching and learning by providing the appropriate instructional, research, and administrative facilities that support the depth of knowledge the University seeks to instill;
- Serve as a regional center and asset for intellectual development, cultural activity, and life-long learning for CSUDH and the surrounding community;
- Serve as an accessible, safe, and attractive campus for students, staff, faculty, and the community;
- Support opportunities for interaction and collaboration among students, faculty, staff, community members, and campus visitors;
- Increase on-campus housing for students, faculty, and staff — including development of ~~market-rate~~campus apartment housing to serve both University and non-University occupants within the proposed University Village project component, and make such housing ~~options open~~available on a priority basis to students, faculty, and staff.
- Provide on-campus housing opportunities for faculty and staff to promote faculty and staff recruitment, and retain and enhance faculty and staff connectivity with the campus; and provide housing opportunities to graduate students and those in the greater community interested in campus life connectivity;
- Attract international students to CSUDH;
- Provide services and facilities for students, faculty, and staff to support the University's vision of a vibrant 24/7 campus;
- Provide additional on-campus learning, research, and internship opportunities for students, faculty, and staff through on-campus public-private partnerships;
- Make efficient use of developable land and create the appropriate balance between built areas and open space;
- Continue to provide suitable facilities for informal and organized recreation and intercollegiate athletics;
- Maintain and enhance the physical appearance of the campus;
- Maintain stewardship of campus landscape and natural resources and reinforce the University's sustainability goals;
- Incorporate new technologies and welcoming, socially responsible physical environments;

[5] Please refer to Chapter 1, Section 1.3, of the 2018 Guidelines for a further discussion of the 10-month campus planning process for the proposed project led by former University President Willie J. Hagan and the University's Master Plan Steering Committee, the interim Vice-President for Administration and Finance, and the Director of Planning, Design, and Construction.

- Maintain and manage all campus facilities, systems, and infrastructure; and
- Generate revenue from public and private sources to realize the project's objectives, and further support and benefit the University's educational mission.

The above project objectives were considered in developing the proposed project, which will accommodate the projected increase in student enrollment and enable the University to continue to fulfill its educational mission.

Project Location and Surrounding Uses

Project Location

The project site is the CSUDH campus, located in the City of Carson, in Los Angeles County as depicted in **Figure 2.0-3**. The campus consists of approximately 344 acres. As shown in **Figure 2.0-4**, an aerial photograph of the campus, the campus is bounded on the north by Victoria Street, on the south by University Avenue, on the west by Avalon Boulevard, and on the east by Central Avenue. Central Avenue provides access to a series of industrial park buildings and to the campus from the State Route 91 (SR-91) freeway. **Figure 2.0-4** also depicts the portion of the campus facilities leased to StubHub Center's parent company Anchutz Entertainment Group (AEG). The StubHub Center is an athletics and entertainment venue for soccer, football, tennis, track and field, and cycling, including the existing 27,000-seat stadium and associated parking.

Figure 2.0-3

CSU Dominguez Hills Campus Regional Map

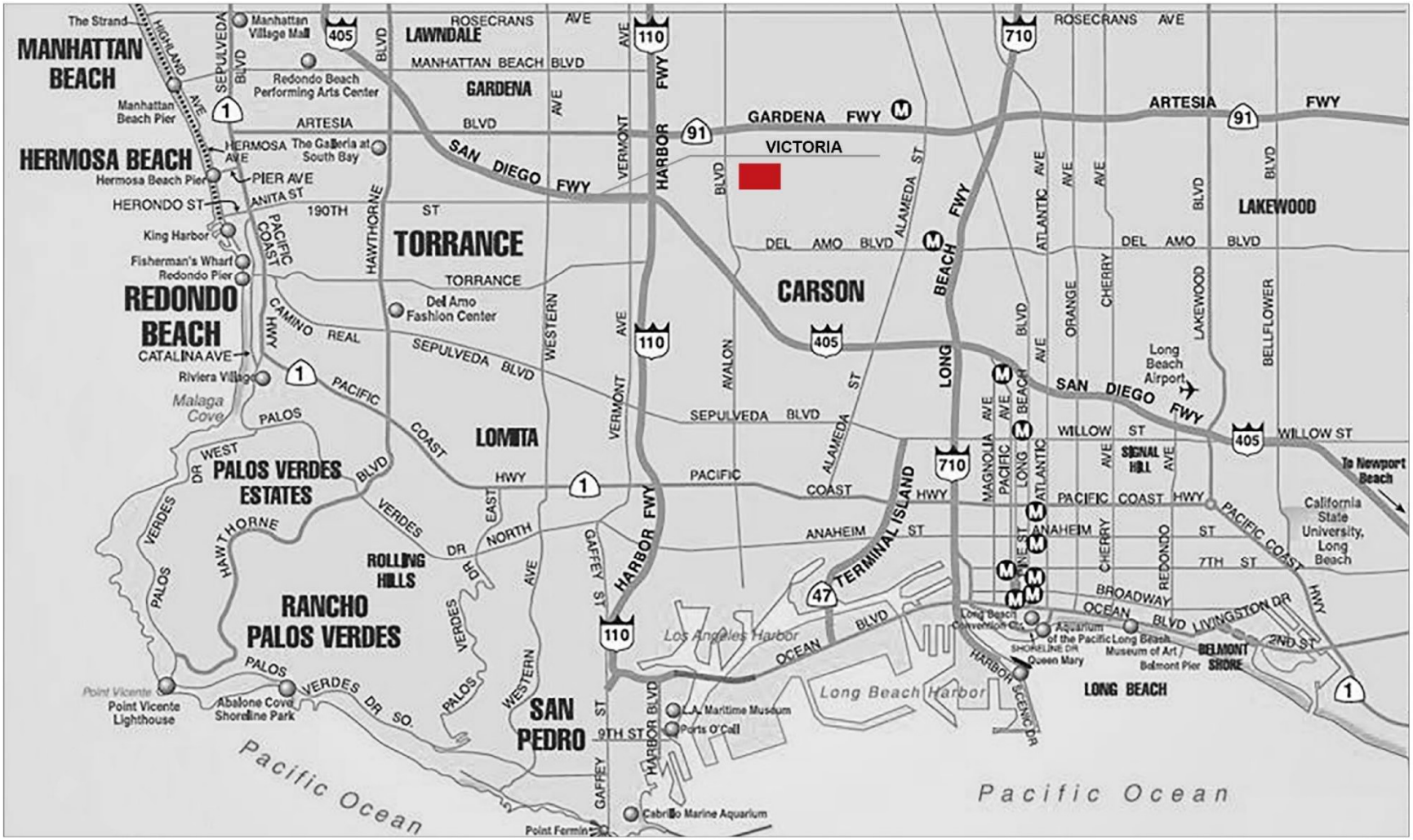
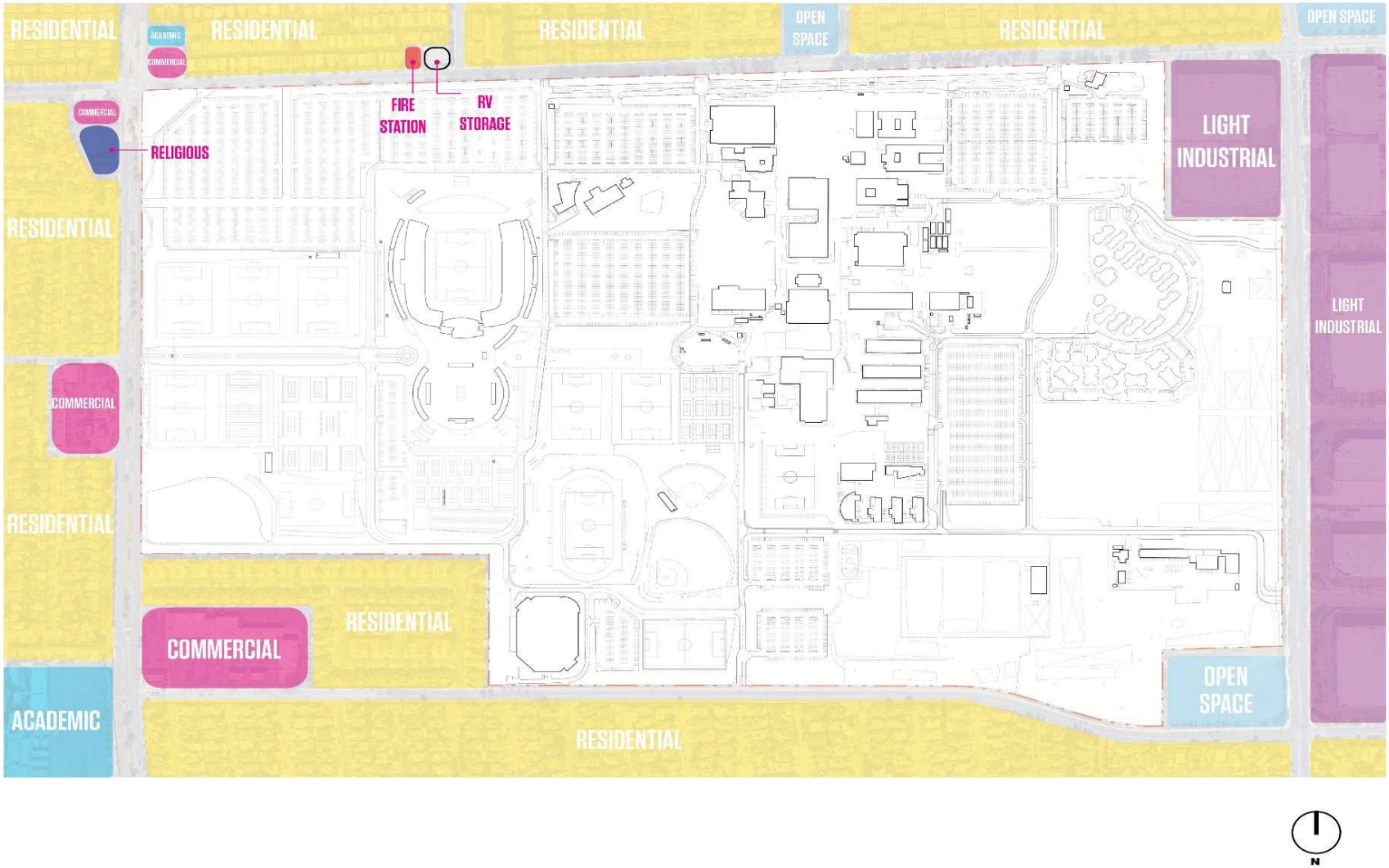


Figure 2.0-4
Aerial Photograph of CSU Dominguez Hills Campus

Surrounding Uses

The campus is surrounded by predominantly single-family and multi-family residential development to the north across Victoria Street and to the south across University Avenue; residential and commercial development to the west across Avalon Boulevard; and light industrial park facilities to the east across Central Avenue. These surrounding uses are generally illustrated in **Figure 2.0-4** and **Figure 2.0-5**. As shown, the surrounding areas are fully developed, with very few vacant undeveloped parcels remaining, which are depicted as open space in **Figure 2.0-4**. The County fire station, Fire Station 116, is located directly across from the campus on Victoria Street.

Figure 2.0-5
Surrounding Land Use Diagram



Regional and Community Setting

CSUDH fulfills an important role in providing education, economic, social, and cultural benefits to the Los Angeles region and State of California, and it is the seventh largest CSU campus in terms of enrollment. Some of these benefits are highlighted below.

As to economic benefits, annual spending related to CSUDH (approximately $190 mil- lion) generates a total impact of approximately $328 million on the regional economy, and approximately $335 million on the statewide economy. This impact sustains nearly 3,000 jobs in the region and statewide economy. On an annual basis, the impact gener–ates more than $18 million in local tax revenues and nearly $20 million in statewide tax revenues.

CSUDH also enhances the quality of life in the Los Angeles region through community service, arts, and culture. The University is a center for cultural life in the South Bay area of Los Angeles County. Among the University's important components is the Library South Wing, a state-of-the-art facility that will serve the University and community far into the 21st century by meeting the evolving educational, research, and cultural needs of both the University and the surrounding community with features such as a technologically advanced archival storage and research area. In addition, the University's award-winning University Theatre and Edison Theater complex is home to the Theatre Arts Department, including the Teatro Dominguez theatre company and the New African Grove Black Theatre Program, and offers plays, readings, musical concerts, dance recitals, lectures, local entertainment, and cultural programs. The Loker Student Union serves as a social and cultural center and event venue for the campus and surrounding community, providing 120,000 square feet of meeting and event space, including the 800-seat Dominguez Ballroom, conference rooms, a sports bar, and a fine dining restaurant. The University Art Gallery is one of the major exhibition spaces of the South Bay area, holding five exhibitions per year. With over 2,000 square feet of exhibition space, the Gallery can accommodate large-scale paintings and sculptures by local and national artists, and is also used as a forum for student art critique classes, discussions with artists, University and community guest lecture series and events.

The campus includes facilities for NCAA Division II athletic programs and is the site of the StubHub Center, which includes an existing 27,000-seat stadium, home to Major League Soccer's Los Angeles Galaxy and temporary home to the NFL's Los Angeles Chargers. The StubHub Center is also an official U.S. Olympic training site and multi- sports complex for world-class soccer, tennis, track and field, lacrosse, and cycling, as well as other events. CSUDH students gain work experience as interns at the StubHub Center and student-athletes have the use of StubHub Center soccer training fields and a 3- mile jogging trail with twelve fitness stations.

Finally, the California Academy of Math and Science (CAMS), a high school in the Long Beach Unified School System, is located on the CSUDH campus; CAMS' students have the opportunity to enroll in college-level courses at CSUDH.

Enrollment

Since its inception, CSUDH has been planned to accommodate 20,000 FTES. The project's primary goal is to provide campus facilities necessary to accommodate this planned enrollment. Historically, the rate of enrollment growth for the University has varied over time, in response to factors such as regional demographic participation rates, which are, in turn, based on the changes in local population characteristics; college- attendance rates within the region and the State; retention rates for CSUDH students; tuition and other costs of attending university; participation of international students attending CSUDH; and other factors.

Project Characteristics

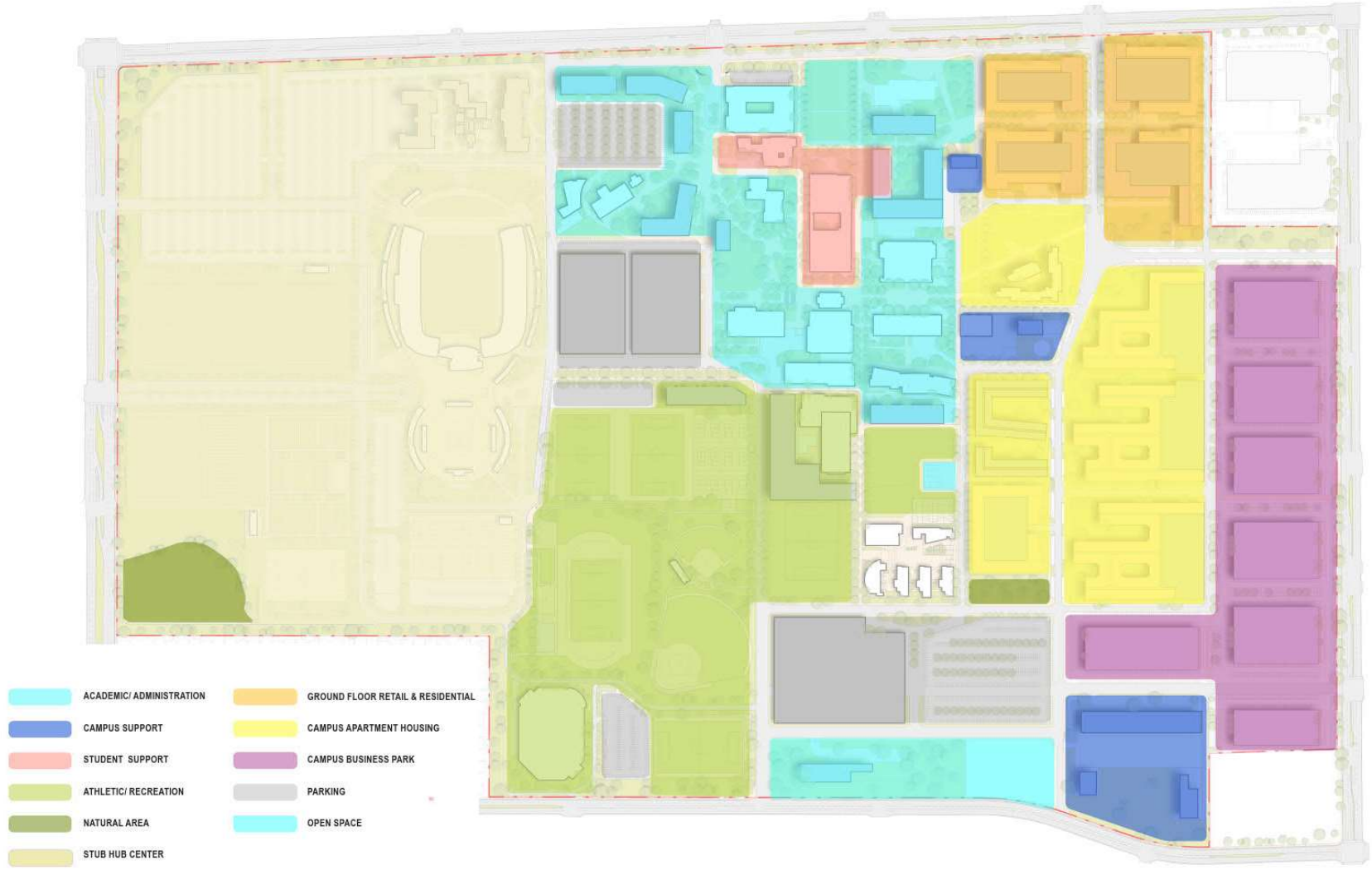
The 344-acre campus is comprised of three areas: the Core Campus with academic facilities, a planned University Village, and the existing StubHub Center. The proposed project will provide for new facilities and features within all three of these campus areas. These buildings, facilities, and improvements were formulated in response to objectives and specific needs identified throughout a comprehensive process guided by a 2018 Master Plan Steering Committee represented by faculty, administration, students, and staff, with input from the campus community and stakeholders through a comprehensive public outreach process.

Development Framework

Figure 2.0-6 shows the framework for long-term campus development of academic, student housing, student support, ~~mixed use~~retail, ~~residential~~campus apartment housing, and campus business park facilities. Recreation and athletics locations and major natural and open spaces are also indicated. The map illustrates location, adjacency, and scale of future facilities and improvements that are planned to be incrementally developed over the proposed project's 2035 planning horizon. These proposed physical improvements, as described below, are the subject of the proposed project.

Figure 2.0-6

Master Development Framework (Updated)



Technical, Economic, and Environmental Characteristics

CEQA Guidelines section 15124(c) requires an EIR to provide "[a] general description of the project's technical, economic, and environmental characteristics, considering the principal engineering proposals, if any, and supporting public service facilities." The project includes a mix of uses including academic and administrative facilities, performing arts facilities, research facilities, housing, retail, ~~office,~~ campus business park, athletic, and open spaces. The proposed facilities and the improvements/infrastructure necessary to implement the proposed project are described below. This description is intended to provide a sufficient level of detail from which an evaluation can be made of the significant environmental impacts that could occur should the proposed project be approved.

Economic Characteristics

The proposed project will create new educational and employment opportunities for the Los Angeles region that will result in a variety of economic benefits. These economic benefits include, among other things, educational and employment opportunities generated by expansion of the University's academic and support facilities, new business and campus apartment housing generated by the University Village, new revenue sources for the University to support its educational mission as a result of the University Village development, economic activity associated with an expanded StubHub Center, and tax revenue in favor of the City of Carson. These economic characteristics are discussed in further detail below.

The proposed project's campus facilities will directly result in new employment opportunities for faculty and staff and educational opportunities for students. In addition, the University Village portion of the proposed project includes the development of new entertainment options, retail stores, and restaurants that will serve the University and residents in the surrounding community, also resulting in new jobs and economic activity. The planned University Village includes ~~market-rate~~ campus apartment housing that will provide ~~an~~ important new housing options for faculty, staff, students, as well as local residents. The campus apartment housing will utilize a leasing system which prioritizes the leasing of housing in the following order: university faculty and staff; students; employees of another CSU campus; employees of educational partners of the university which are covered by an agreement with the university, graduates from a CSU campus; and lastly members of the general public. Finally, the University Village portion of the project includes ~~a~~ a campus business park development which will provide important educational benefits in the form of on-campus learning, research, and internship opportunities for students, faculty, and staff through on-campus public-private partnerships, which will ~~internship opportunities for students, and f~~further the University's educational mission, ~~and~~ provide job opportunities for students, and ~~as well as be expected to~~ generate economic activity.

The proposed project's University Village component will also provide important new sources of revenue for the University that will directly support its educational mission and help to fund educational opportunities for its students. More specifically, net revenue from the development from the University Village project component will be used to hire additional high-quality faculty, renovate and construct university facilities - many of which are in dire need of

repair - and support CSUDH students and their educational success. Further, the University Village site has several attributes conducive to residential and campus business park development. These attributes include access to campus recreation, athletic, and cultural amenities; pedestrian and bicycle connectivity with the Core Campus and the StubHub Center; faculty research opportunities and expertise; and student internship and recruitment opportunities — all as a result of the proposed University Village's campus location and its close proximity to four regional freeways, the downtown Los Angeles area, and the ports of Long Beach and Los Angeles.

In addition, given the significant reduction in the State of California's funding of higher education over the past decade, the University has prioritized finding alternative sources of funding so it can meet its primary goal and obligation; namely, to provide an affordable, high-quality education to its students. The proposed project will advance the University's educational mission by providing these new funding sources and helping it to achieve its educational mission.

Additionally, the proposed project provides for additional seating at the existing StubHub Center that will generate economic activity. A 2015 economic impacts report commissioned by the StubHub Center demonstrates that several sectors of consumer goods spending reflected in taxable sales, increased significantly in the City of Carson between 2001 and 2012, despite the nation-wide recession beginning in the fourth quarter of 2007. The report notes that while not all of these increases can be directly attributed to the StubHub Center, some portion of this growth is a product of StubHub Center visitor and event attendee spending in the community before, during, and after events. The expansion of the StubHub Center seating as part of the proposed project is expected to further augment these economic impacts.

In addition to the various economic activity generated as a result of the proposed project as described above, the City of Carson also will benefit directly -from -the proposed project in the form of increased tax revenues it will collect associated with the University Village project component. According to preliminary projections, it is anticipated that the City of Carson will receive annual recurring tax revenues as a result of the University Village project component.

Technical and Environmental Characteristics

Core Campus

The Core Campus project component comprises the central portion of the campus, extending from Victoria Street to University Avenue. The proposed project will expand the Core Campus to the west, arranging new facilities to reinforce the functions and uses of the adjacent existing buildings and creating a renewed academic core to support a vibrant campus life. As illustrated in **Figure 2.0-7**, the proposed project provides for the best use of the existing facilities and for new, appropriately situated facilities totaling approximately 1.26 million gross square feet, and other features within the Core Campus, including:

- 12 new academic and administrative facilities, providing classrooms, laboratories, faculty and administrative offices, performing arts facilities; an incubator/research facility; and facilities for accommodating CSUDH's mobile Fabricator Lab vehicles;

- Student support facilities, including expansion of the Loker Student Union, approximately 990 new student beds, and a new student recreation center;
- Athletic facilities, including a remodeled gymnasium and existing and new playfields;
- Campus support facilities, including an expanded Child Care Center; new Facilities Services offices and yards; expansion of the existing Central Plant; and a new electric substation.
- Parking facilities to accommodate 20,000 FTES, including reconfigured surface lots and new parking structures;
- Reconfigured north campus entry at Tamcliff Drive and Victoria Street; a reinforced campus entry at Toro Center Drive and University Avenue; and reconfigured vehicle access to parking facilities; and
- Open space areas for campus activities, programmed and informal gathering and recreation.

Providing appropriate opportunities for students to live on campus is an important component of the proposed project. As part of the Core Campus development, the proposed project provides for replacement of older student housing facilities with new student apartments within in the Core Campus, as illustrated in **Figures 2.0-7** and **2.0-8**. Based upon the replacement of the existing student apartments with the new apartment style student residences, the proposed project provides approximately 340 net new student beds on campus.

University Village

The University Village project component comprises the eastern portion of the campus, extending from Victoria Street to south of Glenn Curtiss Drive. **Figure 2.0-7** shows the University Village project component; and **Figure 2.0-8** provides a University Village detail of the proposed uses on the east side of the campus. Such on-campus uses include the following ~~mixed-use development~~ amenities:

- Retail to support the Core Campus, University Village and the community;
- ~~Market-rate~~Campus apartment housing and parking, will provide housing for faculty and staff, students, and the general public;
- Campus ~~B~~business park, will provide important educational benefits in the form of on-campus learning, research, and internship opportunities for students, faculty, and staff through on-campus public-private partnerships, which will further the University's educational mission, and provide job opportunities for students;~~targeted to uses compatible with and supportive of the University's educational mission;~~
- Open space areas for informal activities, leisure, gathering, and recreation;
- Vehicle circulation improvements, including an extension of Birchknoll Drive from Victoria Street to University Avenue, and reconfigured vehicle access from Central Avenue via Charles Willard Drive and Glenn Curtiss Drive; and

- Parking in structures and in surface lots serving residents, students, faculty, and staff; and
- Preservation of an existing natural reserve area.

The new campus apartment housing ~~with~~will include up to 2,150 apartment units within the University Village, which will be made available for faculty, staff, students, graduate students with families, and members of the general public interested in residing in close proximity to CSUDH to take advantage of campus life programs, recreation, athletics, cultural activities, and other campus benefits. The new campus apartments will utilize a leasing system which prioritizes the leasing of housing in the following order: university faculty and staff; students; employees of another CSU campus; employees of educational partners of the university which are covered by an agreement with the university, graduates from a CSU campus; and lastly members of the general public. The apartments are anticipated to be a mix of studio, one-bedroom, and two-bedroom units, with the majority of units comprised of one-bedroom apartments. The University Village also will include up to 721,000 gross square feet ~~of~~of campus business park facilities, and up to 96,000 gross square feet of support retail uses. The campus business park component will expand connections with businesses and enhance opportunities for additional student internships, shared facilities, equipment, and technology, innovative learning environments, and faculty and student research opportunities, which will further the University's educational mission, and provide job opportunities for students. The retail use project component will benefit and be available to students, faculty, staff, and University Village residents and employees.

The University Village component, which is planned to be developed through public- private partnerships, also will advance the University's educational mission by providing additional sources of revenue to the University to support academic programs, and by providing greater access to much-needed on-campus housing options.

Figure 2.0-7

Master Plan Facilities and Features (Updated)

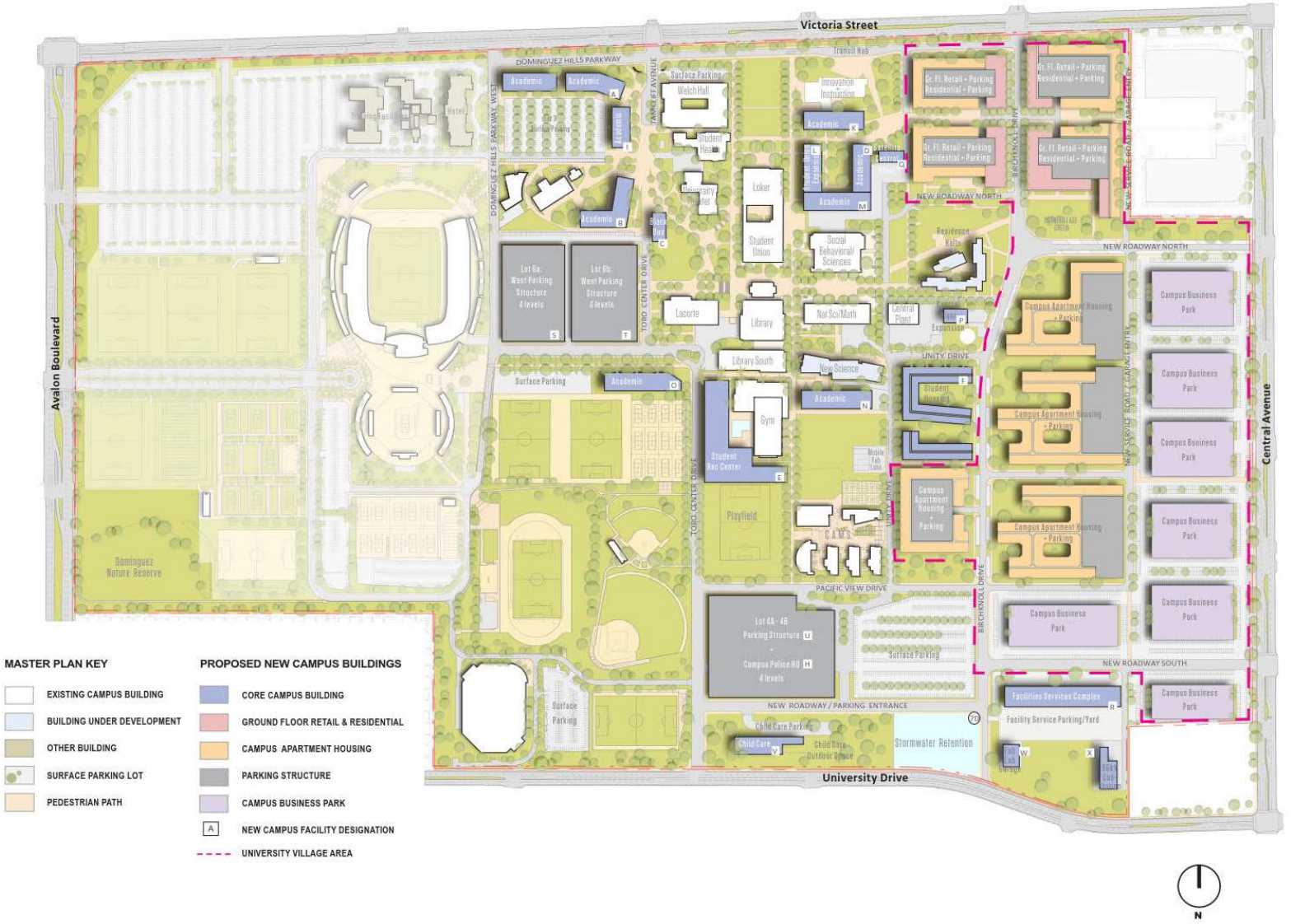


Figure 2.0-8

University Village ~~-~~Detail (Updated)

StubHub Center

The existing StubHub Center is located in the western-most area of the campus, east of Avalon Boulevard. The StubHub Center's existing facilities include a stadium with seating for 27,000 spectators. The proposed project provides for an additional 3,000 seats at the stadium, increasing capacity from 27,000 to 30,000 spectators. In addition, the proposed project includes the reorientation of previously approved facilities within the StubHub Center, which were approved as part of the 2010 Campus Master Plan. Specifically, the proposed project includes reorientation of Building 122 - Office Complex and Field House/Training Facility; Building 123 – Dormitories; and Building 124 - Conference Center/Hotel. These previously approved facilities were originally planned for alignment in a parallel manner on a site between Victoria Avenue and the stadium. Reorientation of these buildings consists of aligning them perpendicular to Victoria Street, with no change in size, square footage, floor area, height, overall capacity, parking or vehicle access. Further, these facilities will be located in the same area of the StubHub Center consistent with the 2010 Campus Master Plan.

Landscape and Open Space

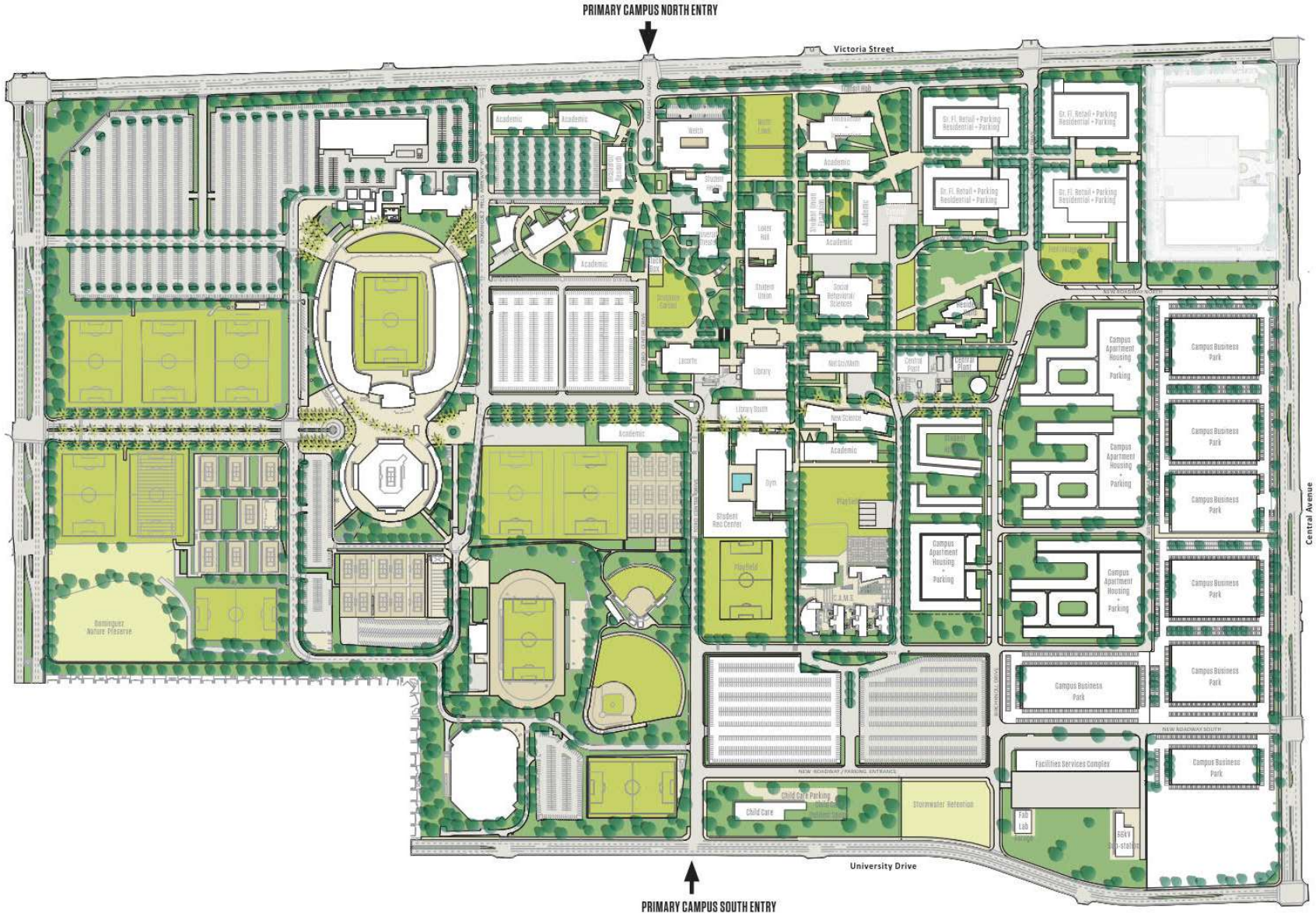
The proposed project creates a holistic framework for the campus outdoor environment to achieve the following goals:

- Increase sustainability of the campus landscape
- Increase plant biodiversity
- Develop visual identity and wayfinding
- Improve connectivity of circulation modes

As illustrated in **Figure 2.0-9**, the landscape framework will- highlight campus open areas, create a strong identity for campus corridors, and provide for enhanced landscape coherence and plant diversity at campus edges, plazas, courtyards, and quadrangles. The proposed landscape framework will reduce the overall extent of turf grass within the campus and provide for climate-appropriate plant palettes, enhancing the campus' sustainability.

Circulation

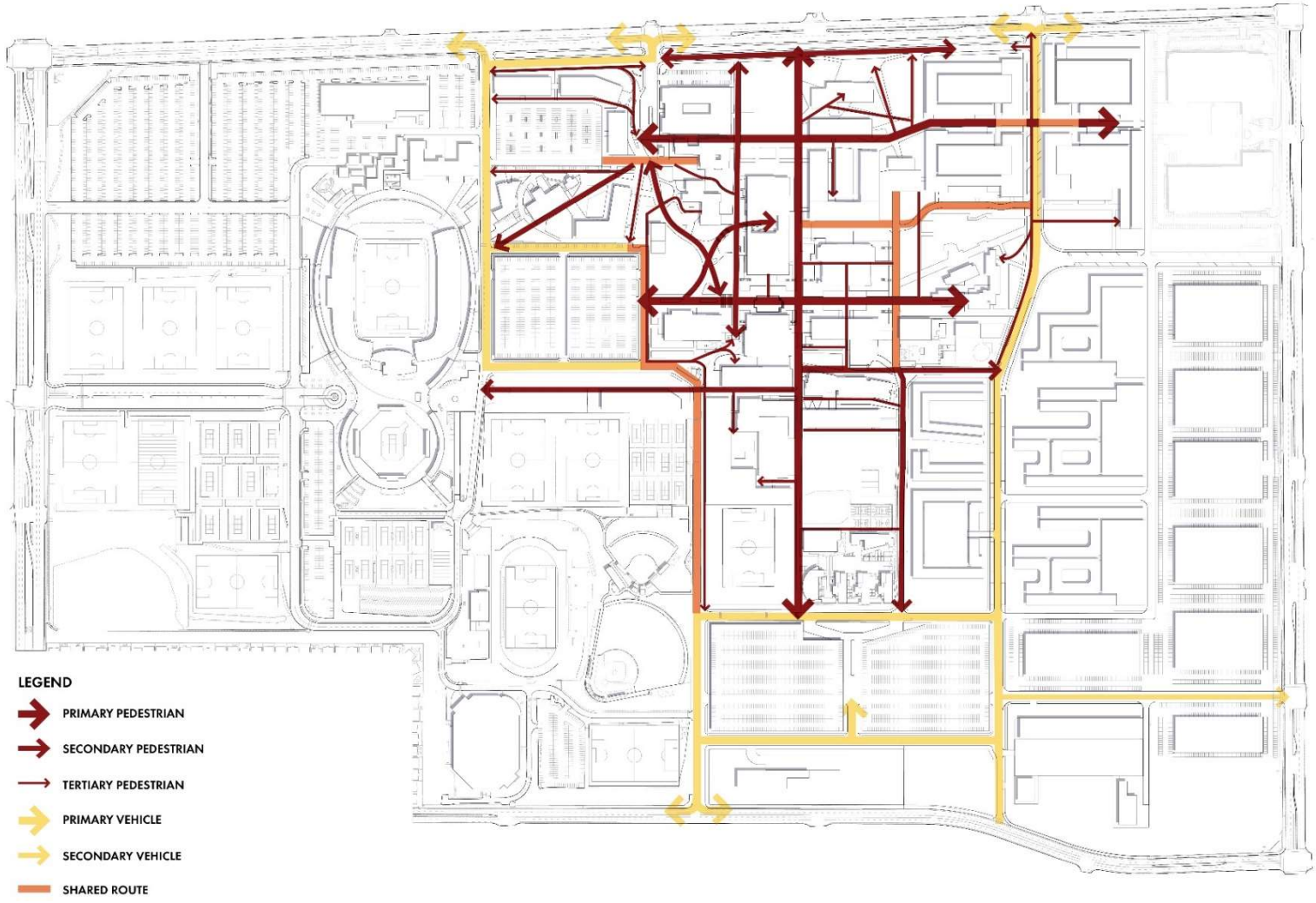
Figure 2.0-9
Landscape and Open Space (Updated)



The proposed project will provide for enhanced pedestrian and bicycle circulation throughout the campus, tied together with an enhanced vehicle circulation system that better distributes arriving and departing traffic and addresses pedestrian and bicycle safety, as illustrated in **Figures 2.0-10** and **2.0-11**. This pedestrian and bicycle plans include new and upgraded paths, lanes, and routes, as well as the provision of bicycle racks and other amenities for pedestrians and bicyclists. The existing commuter/transit hub on the Dominguez Hills Parkway frontage road along the northern edge of the campus will be improved and continue to support the range of public transit services serving the campus, as well as the Toro Express campus shuttle. The specific project design features related to circulation improvements and transportation demand management are described in more details in Section 3.9, Traffic and Circulation.

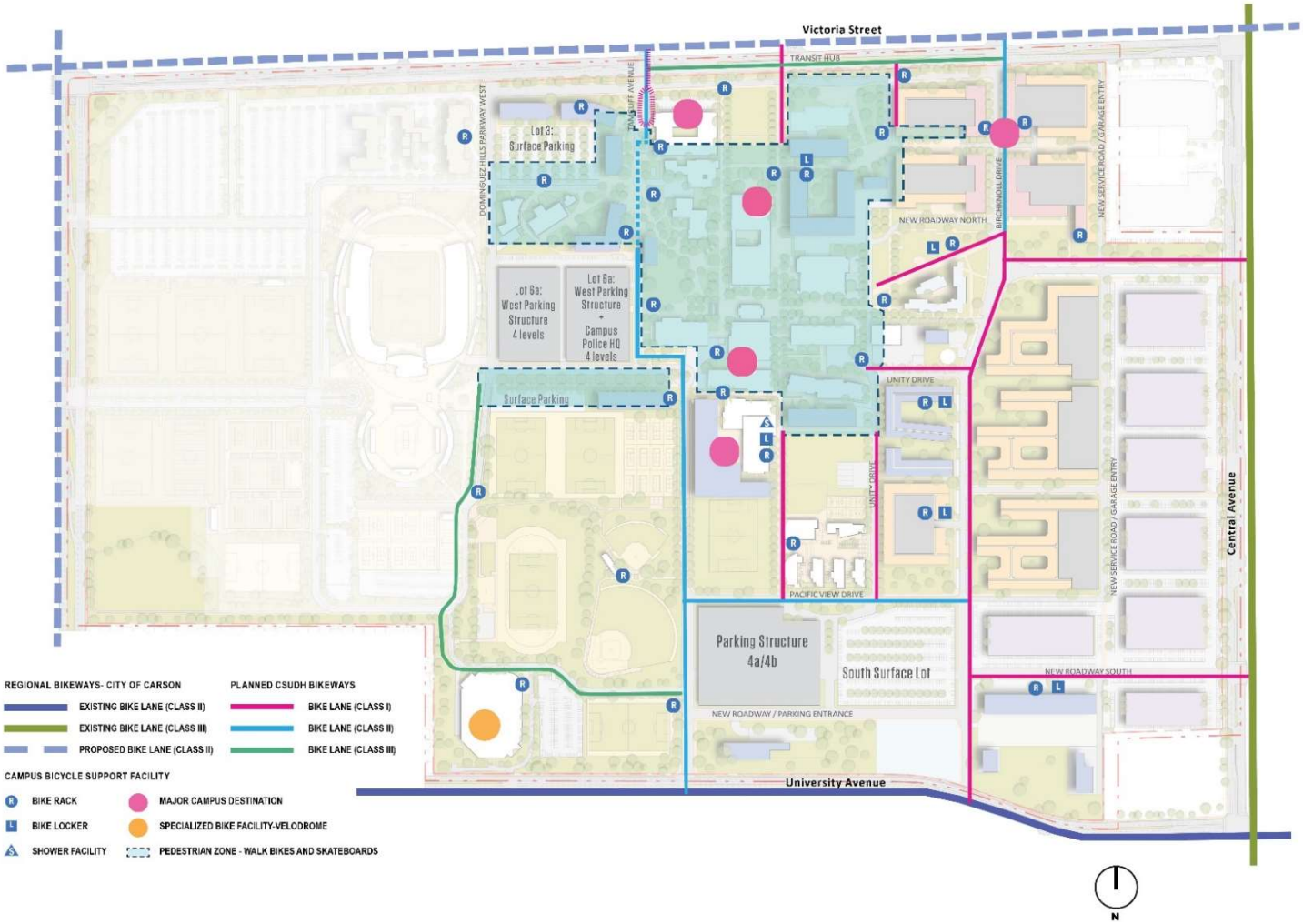
Figure 2.0-10

Vehicle and Pedestrian Circulation



Infrastructure

Figure 2.0-11
Bicycle Circulation



The campus utility infrastructure systems will be improved, modernized, and enhanced to serve new facilities, including drainage, water, sewer, and heating and cooling (including an expansion of the existing Central Plant). The onsite utility systems will be augmented in parallel to development of new facilities on campus. The conceptual utility designs are illustrated in **Figures 2.0-12** through **2.0-15**.

Figure 2.0-12

Existing and New Natural Gas Lines

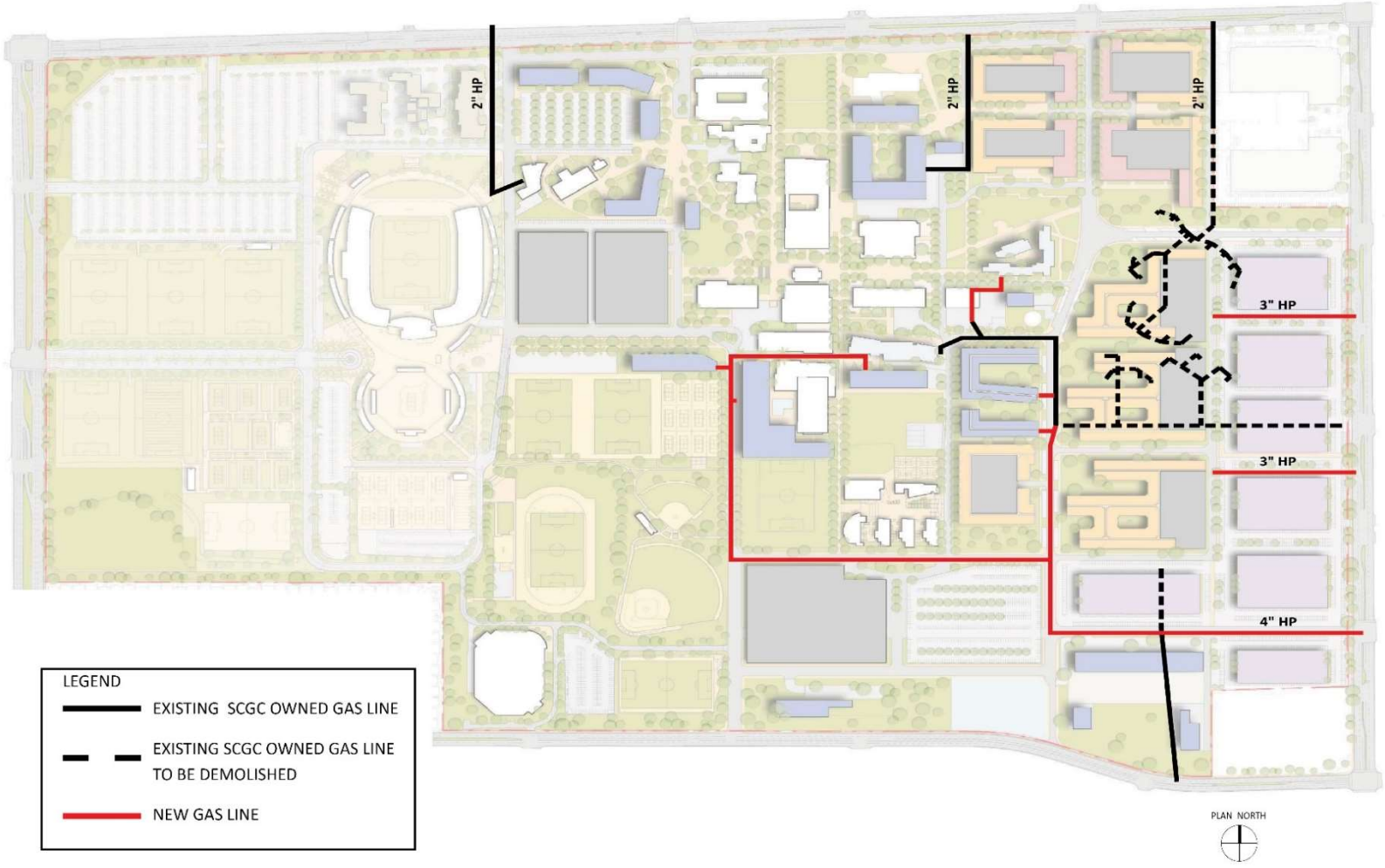


Figure 2.0-13
Existing and New Sanitary Sewer Infrastructure

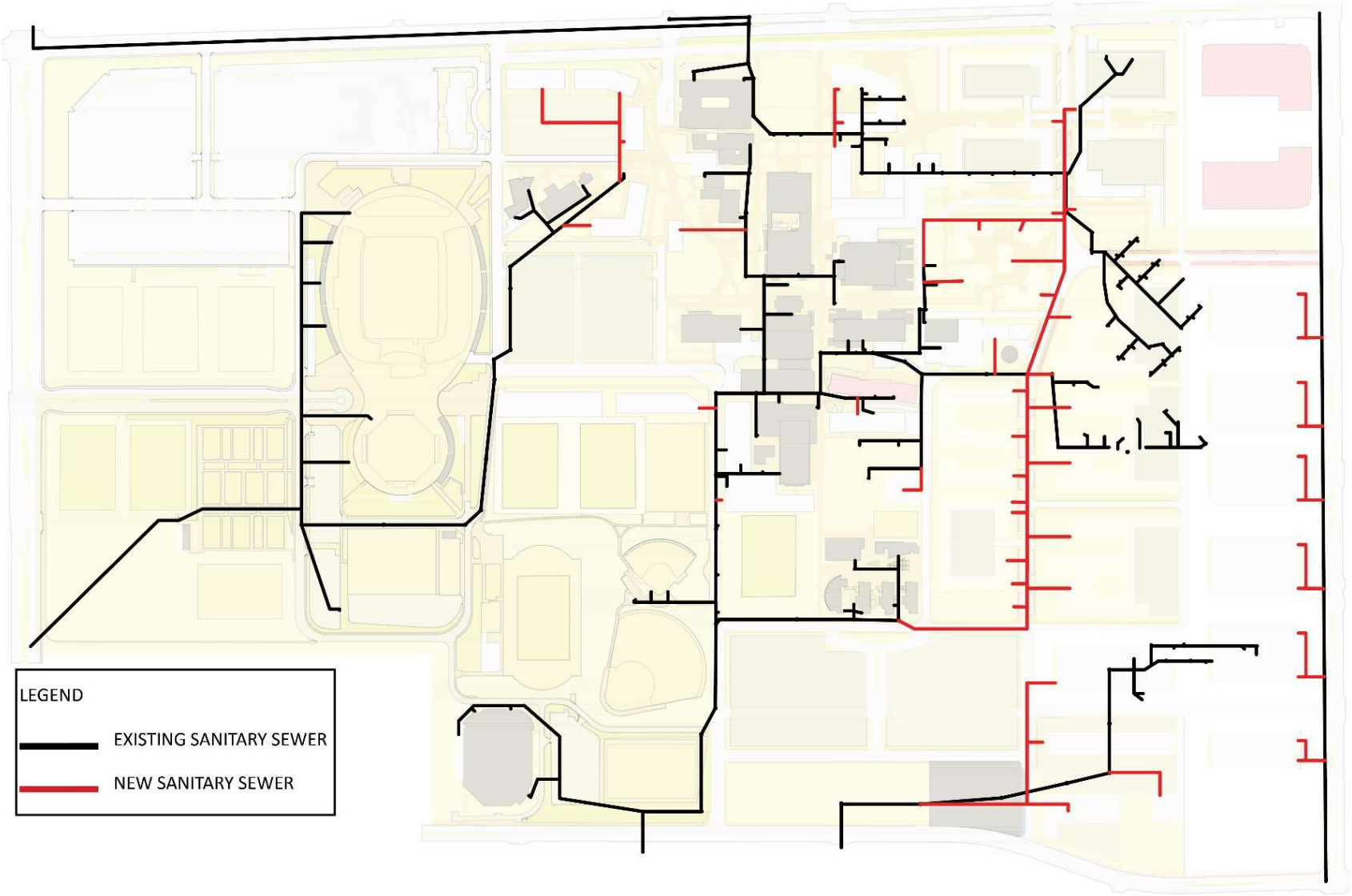


Figure 2.0-14
Existing and New Sanitary Storm Drainage Infrastructure

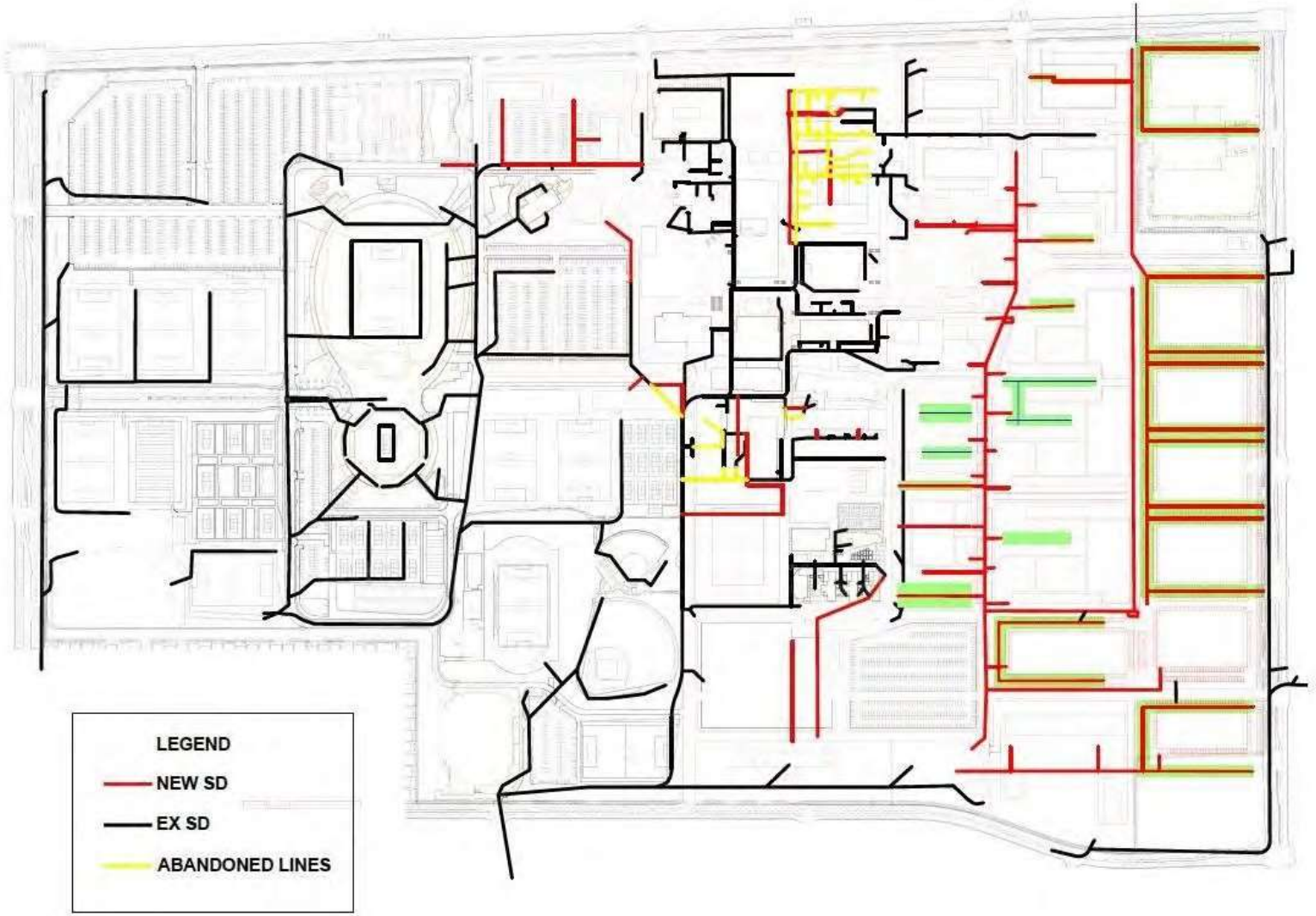
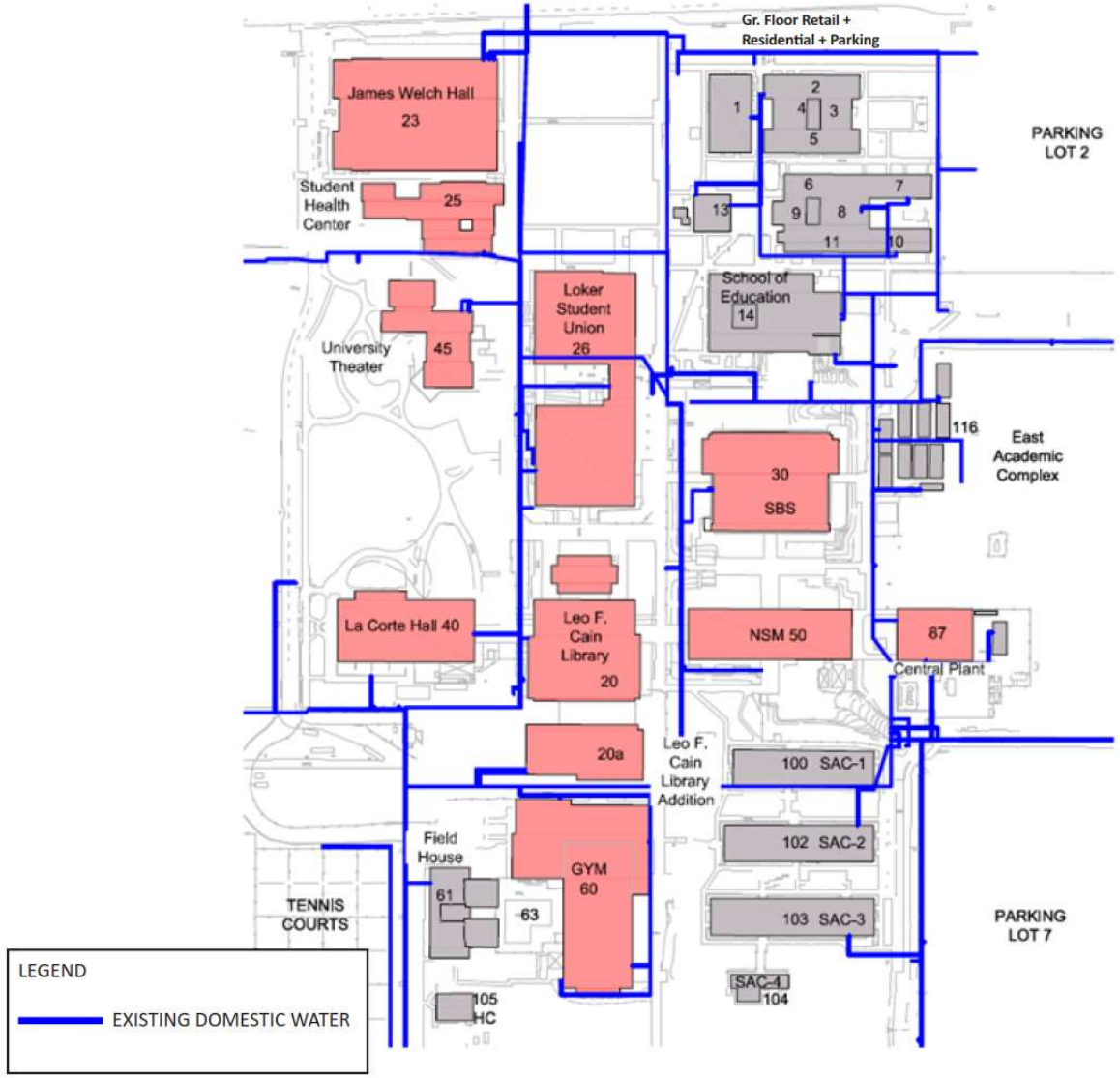


Figure 2.0-15
Existing ~~and New~~ Domestic Water Infrastructure (Updated)



Sustainability

The proposed project provides an opportunity for the University to implement and further develop its sustainability policies and practices. CSU has identified sustainability as a system-wide priority, as detailed in the CSU Sustainability Policy, updated 2014, which focuses mainly on energy and emissions, and largely aligns with the State of California energy and emission goals. In 2016, CSU issued an updated summary, which renamed some of its sustainability goals, and included additional provisions. According to the current CSU System Sustainability Policy and Goals, CSU is to strive to achieve the goals and policy objectives set forth in **Figure 2.0-16**. CSU also utilizes its own Architecture and Engineering Guidelines, which further support its sustainability policies and practices (See http://www.calstate.edu/CPDC/ae/gsf/guidelines.shtml (last accessed May 8, 2018~~.~~)).

Figure 2.0-16

CSU System Sustainability Policy and Goals

CSU SYSTEM SUSTAINABILITY POLICY AND GOALS
ACADEMIC PROGRAMS AND INSTITUTES
Integrate sustainability into the curriculum
CLIMATE ACTION PLAN
Reduce GHG emissions to 1990 levels by 2020 and 80% below 1990 levels by 2040
Promote alternative transportation on campus
Take climate change into account in project planning and scoping
RENEWABLE GENERATION AND ENERGY DEPENDENCE
Increase on-site self-generation capacity to 80MW
Procure more than 1/3 of electricity purchased from renewable sources
ENERGY CONSERVATION AND UTILITY MANAGEMENT
Identify and implement energy efficiency measures to reach GHG reduction goals
Require metering and meter data reporting
WATER CONSERVATION
20% reduction by 2020
WASTE MANAGEMENT
Reduce solid waste disposal by 80% by 2020
SUSTAINABLE BUILDING PRACTICE
Build to LEED Silver equivalent, strive for Gold or Platinum
Consider energy use and life cycle cost in construction or renovation of any building
SUSTAINABLE PROCUREMENT
Promote use of environmentally-friendly business
Work with vendors to reduce waste from packaging
SUSTAINABLE FOOD SERVICE
Purchase 20% sustainable food by 2020

To achieve the CSU sustainability goals, the proposed project incorporates sustainability guidelines for all future campus development. The guidelines address energy efficiency, water efficiency, storm water management, and transportation that reduces vehicular trips, waste management, and the overall enhanced resiliency of the campus' facilities, operating systems, and infrastructure. The major goals and strategies are described in detail in the Guidelines, and include:

- Infrastructure that moves the campus toward Zero-Net Energy;
- Annual energy-use-per-square-foot performance targets for common campus building types;

- Reduced use of water sources that have energy-intensive content related to treatment and conveyance;
- ~~Mixed-use and t~~Transportation-oriented development which reduces single- occupant vehicle trips and creates a more vibrant, walkable community;
- Creating policies and education to move the campus towards net zero waste; and
- Creating a healthy and equitable campus environment for all its occupants.

Implementation and Phasing

Implementation Framework

This EIR is a program EIR as it comprehensively considers a series of actions that is one large project within a defined geographical area as all project components relate to proposed improvements at the CSUDH campus designed and intended to further the University's educational mission. As such, this EIR is intended to provide the CSU Board of Trustees with the environmental information on the proposed project to make a final decision on CEQA compliance for the proposed project. Schematic Plans for future facilities identified in the proposed project would be reviewed for conformance with the 2018 Campus Master Plan, which governs the site-specific details of campus facilities. Further, subsequent projects may tier from this Program EIR, and a finding may be made that sufficient environmental review has occurred pursuant to the CEQA Guidelines Sections 15152, 15162 and 15168.

The proposed project provides for new and renovated campus facilities to further the long-term development of the CSUDH campus. However, adoption of the 2018 Campus Master Plan will not create an obligation mandating the implementation or construction of any of the planned facilities as construction of the planned facilities will ultimately depend upon approval of necessary funding. Two primary mechanisms will provide for the future funding and implementation of facilities included in the 2018 Campus Master Plan: the campus' five-year capital plan, which is updated annually; and public-private partnerships (P3), which may be used to leverage funding for the construction of certain of the planned facilities.

Phasing

The proposed project will be implemented incrementally over the proposed project's planning horizon. In the near term, the proposed project includes the following facilities anticipated to be implemented by the year 2025:

- Approximately 257,000 square feet of campus facilities, including educational buildings, student recreation and wellness center, childcare center, and other operational support facilities;
- Approximately 720,900 square feet of campus business park office space;
- Approximately 96,100 square feet of retail space;
- 1,063 units of ~~market-rate~~campus apartment~~s~~ housing;

- Addition of 3,000 seats for a total of 30,000 seating capacity at the existing stadium and StubHub Center.

The phasing identified above provides a conservative interim year buildout projection for purposes of the analysis in the EIR. The balance of the proposed project's facilities are anticipated to be implemented by the year 2035.

EIR Intended Uses/Project Actions and Approvals

The EIR will be used by the CSU Board of Trustees to evaluate the potential environmental impacts associated with proposed project. In addition, the EIR could be relied upon by responsible agencies with permitting or approval authority over any project-specific action to be implemented.

The following actions and approvals by the CSU Board of Trustees are required:

- Approval and adoption of the ~~2018~~ Campus Master Plan ~~(see **Figure 2.0-1**, Proposed Campus Master Plan)~~;
- Approval of public-private partnership(s) for development of campus apartment housing, campus business park, and ~~mixed-~~retail uses in the eastern portion of the campus;
- Approval of schematic plans for future facilities and improvements, which in some instances may be obtained by authority granted by the Board of Trustees; and
- Others as necessary.

In addition, certain aspects of the proposed project may require a permit or approval issued by a public agency other than the CSU Board of Trustees. The following is a list of the other permits or approvals that may be required by federal, state, or regional agencies responsible for granting any such permits or approvals:

- City of Carson
  - Approval of improvements within the City rights-of-way.
  - Approval of new connections to local sewer system and/or increase in quantity, as needed.
- California Water Service Company
  - Approval of increase in quantity and/or new water connections.
- Sanitation Districts of Los Angeles County
  - Approval of increase in quantity and/or new sewer connections.
- California Department of Fish and Wildlife

  - Issuance of permits under sections 1600–1602 of the Fish and Game Code or other actions if needed for development that may affect freshwater emergent wetland and ephemeral drainage features on the eastern portion of the campus.

- US Army Corp of Engineers
  - Issuance of permits under Clean Water Act section 404, if needed for development that may affect wetlands or waters of the U.S. on the eastern portion of the campus.

- Regional Water Quality Control Board
  - Issuance of permits under Clean Water Act section 401, if needed for development that may affect wetlands or jurisdictional waters on the eastern portion of the campus.
  - Compliance with NPDES permit.

- U.S. Fish and Wildlife Service
  - If required, issuance of permits or approvals for development that may affect jurisdictional resources within the Core Campus area.

- Division of State Architect
  - Approval of accessibility for future facilities.

- State Fire Marshal
  - Fire safety review and approval of future facilities and improvements.

- Southern California Edison
  - Upgrade campus electrical capacity.

3.0 Environmental ~~Assessment~~Analysis

Introduction

The purpose of this chapter is to provide the reader with the information necessary to understand and evaluate the potential environmental impacts due to implementation of the proposed 2018 Campus Master Plan (proposed project). In accordance with the CEQA Guidelines (Sections 15128 and 15143), this chapter focuses on the issue areas identified in the NOP and during project scoping as needing further analysis (aesthetics; air quality; biological resources; cultural resources; greenhouse gases; noise; population and housing; public services and recreation; transportation and circulation, and utilities and service systems).

The environmental setting discussions contain a description of the physical environmental conditions in the vicinity of the proposed project as they existed at the time the NOP was distributed (August 2017). The existing environmental conditions described in the setting sections serve as a baseline for the impact analyses in this chapter. The significance criteria identified for each environmental impact category are consistent with the CEQA Guidelines, Appendix G. The environmental impact analyses focus on the potentially significant effects that could occur during construction and/or operation of the facilities, buildings and improvements included in the 2018 CSUDH Campus Master Plan.

3.1 Aesthetics

This section evaluates the potential short-term construction and long-term aesthetic impacts associated with the California State University, Dominguez Hills (CSUDH) 2018 Campus Master Plan (Master Plan or proposed project). The analysis provided in this section addresses the proposed project's character and general appearance in relation to the surrounding area, the nature of the existing views from locations on campus and whether the proposed project would have a substantial adverse effect on, or substantially damage or degrade, scenic vistas, scenic resources, or the visual character or quality of the project site and its surroundings. The analysis also addresses whether the proposed project would create a new source of substantial light or glare that may adversely affect day or nighttime views in the project area.

Environmental Setting

This section describes the regulatory setting and the project area's existing conditions and visual resources. Following this description, the environmental setting is organized according to visual/aesthetic resources per CEQA Guidelines, Appendix G (i.e., scenic vistas, scenic resources, scenic highways, visual character and quality, etc.).

Regulatory Setting

State

State Scenic Highway Program. The Legislature established the State Scenic Highway Program in 1963 to "preserve and enhance the natural beauty of California" by identifying those portions of the State highway system and adjacent scenic corridor that require special conservation treatment (California Department of Transportation (Caltrans) 2008). Highways included in the Program should "traverse an area of outstanding scenic quality, contain striking views, flora, geology, or other natural attributes" (Caltrans 2008). Caltrans manages the Program and designates both eligible and official state scenic highways. Eligible state scenic highways consist of state routes nominated for official designation by the local governing body with jurisdiction over the lands adjacent to the proposed scenic highway. To be identified as an "eligible" state scenic highway, the local jurisdiction must complete a visual assessment of the proposed corridor and a scenic highway proposal, and Caltrans must determine that the route meets scenic highway criteria. Official State Scenic Highway designation requires preparation of a corridor protection plan containing measures, ordinances, zoning, and/or planning policies applicable to the area of land within the scenic corridor and Caltrans must deem the plan acceptable.

California Code of Regulations, Title 24. California Code of Regulations (CCR), Title 24, also known as the California Building Standards Code, consists of regulations to control building standards throughout the State.

The following components of Title 24 include standards related to lighting: California Building Code (CCR, Title 24, Part 1), Electrical Code (CCR, Title 24, Part 3), Energy Code (CCR, Title 24, Part 6), and Green Building Standards Code (CCR, Title 24, Part 11). The Building and Electrical Codes stipulate minimum light intensities for safety and security at pedestrian pathways, circulation ways, and paths of egress.

The Energy Code provides allowances for lighting power and lighting control requirements for various lighting systems, with the goal of reducing energy consumption through efficient and effective use of lighting equipment. Energy Code Section 130.2 sets forth requirements for outdoor lighting controls and luminaire cutoff requirements. All outdoor luminaires rated above 150 watts must comply with the backlight, up light, and glare (BUG) in accordance with Illuminating Engineering Society of North America's Technical Memorandum on Luminaire Classification Systems for Outdoor Luminaires (IESNA TM-15-11), Addendum A, and be provided with a minimum of 40 percent dimming capability activated to full on by motion sensor or other automatic control. This requirement does not apply to street lights for the public right-of-way, signs, or building façade lighting.

Energy Code Section 140.7 requires outdoor lighting power density allowances in terms of watts per area for lighting sources other than signage. Lighting Zones provide the lighting allowances, as defined in Energy Code Section 10-114. Under Section 10-114, all urban areas within California are designated as Lighting Zone 3.

Energy Code Section 130.3 requires that sign lighting controls with any outdoor sign that is on day and night must include a minimum 65 percent dimming at night. Energy Code Section 140.8 sets forth lighting power density restrictions for signs.

All lighting for the proposed project will comply with Title 24.

The Green Building Code, commonly referred to as the CALGreen Code, includes a section on light pollution reduction (paragraph 5.106.8) that applies the following requirements to nonresidential outdoor lighting:

- The minimum requirements in the Energy Code for Lighting Zones 1-4 as defined in Chapter 10 of the Administrative Code; and
- BUG ratings as defined in the IESNA TM-15-11, Appendix G; and
- Allowable BUG ratings not exceeding those shown in Table A5.106.8 in CALGreen Code Section 5.106.8; or
- Comply with a local ordinance lawfully enacted pursuant to 101.7, whichever is more stringent.

Local

CSUDH, as a state agency, is not subject to local planning regulation. However, the Guidelines for the 2018 Campus Master Plan (Guidelines) will direct the aesthetic character and quality of proposed development within the Core Campus and University

Village. The Guidelines include Landscape Guidelines and Design Guidelines. The Landscape Guidelines provide the vision for future campus development and incorporates sustainability, community interface, and visual identity. The Design Guidelines frame the aesthetic direction for buildings, such as their orientation to open space and circulation systems and their form, including massing, materials and color. The Design Guidelines also guide site development and address signage, furnishings, and service areas. Approximately 76.5 acres within the University Village site are envisioned as a public-private partnership development, which would be guided both by the Guidelines, which describe intended uses/densities, circulation, and open space/landscape concepts; and a separate set of design guidelines contained in Appendix C of the Guidelines, which specifically address the University Village area.

The Guidelines plan the visual environment and aesthetic enhancements. Chapter 5 addresses campus landscaping including biodiversity, connectivity, tree renewal and replacement, and plant palettes. Chapter 7 addresses design guidelines within the Core Campus, including the existing visual environment, building orientation, building materials and colors, form and massing of structures, and site furnishings. The aesthetic enhancements included in Chapters 5 and 7 focus on guiding the design, development, and placement of new facilities for full integration with the existing built environment. Appendix C of the Guidelines focus on the University Village development area and address pertinent visual environment and aesthetic enhancements. Specifically, the University Village Design Guidelines focus on facility siting, architectural treatments, building orientation, landscape materials and zones, infrastructure screening, and development of landmarks, and provide a basic structure that will ensure that development within the University Village will meet CSUDH's future aesthetic goals.

Other

IESNA Recommended Practices. The Illuminating Engineering Society of North American (IESNA) recommends illumination standards for a wide range of building and development types. These recommendations are widely recognized and accepted as best practices and a consistent predictor of the type and direction of illumination for any given building type. For all areas not stipulated by the regulatory building code, municipal code, or specifically defined requirements, the IESNA standards are generally used as the basis for establishing the amount and direction of light.

The IESNA 10th Edition Lighting Handbook defines Outdoor Lighting Zones relative to a range of human activity versus natural habitat. The Handbook's Table 26.4, Nighttime Outdoor Lighting Zone Definitions, establishes the zone designation for a range of existing lighting conditions, from low or no existing lighting to high light levels in urban areas. The Energy Code sections 10-114 and 140.7 reference Table 26.4 relative to allowable energy use for outdoor lighting. In addition, the Handbook defines Recommended Light Trespass Limits in Table 25.5 relative to the Outdoor Lighting Zones. The Recommended Light Trespass Limits describe the maximum light trespass illuminance in lux at the location where trespass is under review. As noted above, the Energy Code stipulates that all urban areas in California are designated as Lighting Zone 3. IESNA Table 25.5 lists a pre-curfew 8 lux (0.76 foot candles) maximum at the location

where trespass is under review for Zone 3. This limit would apply to all building and exterior site lighting.

Further, according to the Handbook "glare occurs in two ways: when either the luminance is too high, or luminance ratios are too high."[1] The maximum luminance of the visible light source determines whether the luminance is too high. The ratio of the light source luminance as compared to the luminance within the view visible at an observer position determines whether the luminance ratios are too high. This ratio is referred to as "contrast," and is determined by the variation of luminance. For residential occupancies at night, "high," "medium," and "low" contrast are terms used to describe the effect of the contrast ratios (the ratio of peak measured luminance to the average within a field of view) of greater than 30:1, between 10:1 and 30:1, and below 10:1, respectively. Contract ratios above 30:1 generally are uncomfortable for the human eye to perceive and may present an unacceptable condition for relaxation and enjoyment of a residence.

Existing Conditions

The CSUDH 344-acre campus is located within the City of Carson, in the County of Los Angeles. **Figure 3.1-1** is an aerial photograph of the current campus, bounded on the north by Victoria Street, on the south by University Avenue, on the west by Avalon Boulevard, and on the east by Central Avenue. **Figure 3.1-1** also shows the area of the campus leased to StubHub Center's parent company, Anchutz Entertainment Group (AEG), for the StubHub Center — an athletics and entertainment venue for soccer, tennis, track and field, and cycling, including the 27,000-seat stadium and associated parking.

[1] Luminance describes the brightness of an illuminated surface. Luminance is a measure of reflected light from a specific surface in a specific direction over a standard area. It is measured in foot lamberts (candelas per square foot). A candela is defined as a measure of light energy from a source at a specific standard angle and distance. Metric equivalent for luminance is candelas per square meter, or nits.

Figure 3.1-1
Aerial Photograph of CSU Dominguez Hills Campus, 2016

The area surrounding the CSUDH campus is comprised primarily of existing residential development on the north across from Victoria Street; on the south across from University Avenue; and on the west across from Avalon Boulevard. Except for the existing Pueblo Dominguez student housing on the eastern side of the campus comprising 649 beds and associated parking, significant portions of the east side campus are underutilized and available for development. Light industrial development is to the northeast and to the east across from Central Avenue. **Figure 3.1-2** illustrates existing land uses surrounding the CSUDH campus.

Figure 3.1-2
Surrounding Land Uses

Since its inception, the CSUDH campus has been planned to accommodate 20,000 full-time equivalent students (FTES). This target student capacity remains the primary goal under the 2018 Campus Master Plan. At this time, the total existing campus physical capacity with all of its classrooms, laboratories, and other instructional space is at a level that will support approximately 11,000 FTES. The Guidelines make clear, however, that a number of the buildings on campus have reached the end of their useful life due to their age or condition. Further, as the student population increases to 20,000 FTES, the campus must add additional space to accommodate the increase in the number of students.

A. Quincy Jones (architect) created the 1964 Campus Master Plan that dictates the campus' existing visual character. This plan presented a comprehensive vision for the campus' physical development, and is notable for its continuous and interrelated open space system, continuity of pedestrian circulation, separation of pedestrian and vehicular movement, integrated and consistent concept of architectural form, and grade-separated utilities and service systems. The plan proposed a distinct type of modern architecture that used concrete construction. The landscaping proposed under the plan consisted of a "double canopy" concept, with high eucalyptus trees and a lower canopy of coral trees. (See Guidelines for the 2018 Campus Master Plan.)

CSUDH is a relatively compact campus bordered by local streets and surrounded primarily by residential and light industrial uses. The campus core is centrally located and houses most of the academic buildings. The campus' western portion supports the athletic facilities (sports fields, StubHub Center, StubHub Tennis Center, etc.) and parking lots. Areas east and south of the campus core contain campus housing, parking, undeveloped parcels and support services. Campus buildings include both multi-story complexes and

single-story structures. Many existing buildings are accessed from mid-level due to grade changes. The original master plan incorporated grade changes and uneven topography into building design and open space layouts. The campus is generously landscaped with large green spaces, planter areas, and mature trees providing open areas, natural relief and shade. The campus is well maintained and has a traditional campus character. (See **Figures 3.1-3** through **3.1-12**, ~~Campus Views~~Glenn Curtiss Street Looking West.)

Figure 3.1-3
Victoria Street Looking Southwest at Entry Monument
(Background is Loker Student Union)

Figure 3.1-4
Gate I at Toro Center Looking Southeast

Figure 3.1-5
Glenn Curtiss and Central Looking Southeast

Figure 3.1-6
North of Loker Student Union Looking Southeast

Figure 3.1-7
East Side of Loker Student Union Looking North Toward Victoria Street

Figure 3.1-8
Central Ceampus Nnear Social and Behavioral Sciences (SBS) Building

Figure 3.1-9
Natural Sciences and Mathematics (NSM) Building Central Campus

Figure 3.1-10
Looking East Toward StubHub Center Entry

Figure 3.1-11
Lot 7 Looking Southeast

Figure 3.1-12
Glenn Curtiss Street Looking West

The visual character of the campus' ~~–~~built elements is largely institutional, although several buildings at the academic core, such as the Cain Library, Welch Hall, University Theatre, and La Corte Hall, have a distinct architectural style representative of modern architecture. The campus also has several newer buildings with a contemporary architectural style that use concrete, steel, and glass. Uniformity in scale is maintained between the older and contemporary buildings. (See **Figures 3.1-13** through **3.1-17**, ~~Campus Buildings~~Loker Student Union.)

Figure 3.1-13
Cain Library

Figure 3.1-14
Welch Hall

Figure 3.1-15
University Theatre

Figure 3.1-16
La Corte Hall

Figure 3.1-17
Loker Student Union

The proposed project entails the development of new and expanded facilities in three areas of campus: (1) the Core Campus; (2) the University Village; and (3) the StubHub Center.

Scenic Vistas

Scenic vistas and views are defined by their perceived importance to a particular set of viewers. The quality of a scenic vista or view is evaluated according to the length of time the viewer is exposed to it and the viewer's sensitivity. In general, the proximity of the viewer to the viewshed, viewing duration, and the overall impression of the view on the viewer determines the length of exposure. The visibility of resources in the landscape, the number and types of viewers, the frequency of viewing, and the duration of viewing affects viewer sensitivity. Viewer activity, awareness, and expectation also influence visual sensitivity. Typically, residential viewers have extended viewing periods and visual sensitivity is considered higher for residential neighborhood areas than for commuters and other people driving along surrounding streets. Views from vehicles generally are fleeting and temporary.

Sensitive viewers in the vicinity of the project site would include neighborhood residents to the north, west, and south; the students and staff on campus; and pedestrians and motorists along adjoining streets. Neighborhood residents are considered to have a higher level of sensitivity because the duration of their views is longer. Residents in general have higher sensitivity to changes in their views, while workers/staff are considered to have a low level of sensitivity because they are focused on their work. Pedestrians and motorists also have a low level of sensitivity because their attention is focused on moving along the roadway.

The campus, as well as the surrounding area, is relatively flat with limited views to adjacent uses. However, where land uses on campus include undeveloped open space and along adjacent streets views can extend some distance. (See **Figures 3.1-18** through **3.1-21**,~~-~~ University Drive at Gate I Looking East (Corridor View)~~Scenic Views.~~).

There are no designated scenic vistas within the City.

Figure 3.1-18
Central Avenue Looking West Across Campus

Figure 3.1-19
On-Campus at Glenn Curtiss and Birchknoll Looking South

Figure 3.1-20
Central Avenue Looking West Down Victoria Street (Corridor View)

Figure 3.1-21
University Drive at Gate I Looking East (Corridor View)

Scenic Highways

There are no scenic highways in the City of Carson or within or surrounding the CSUDH campus. SR 91 and I-405 are not designated scenic highways and are not visible to or from campus.

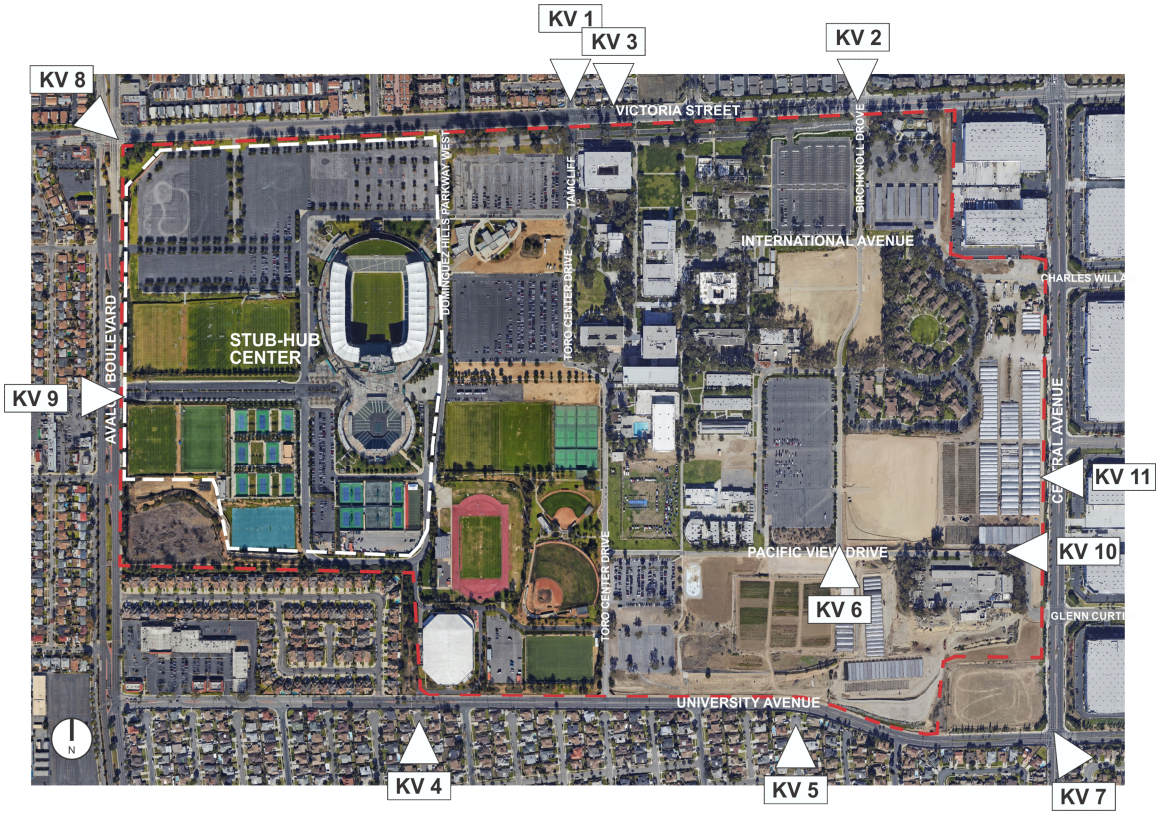
Visual Character and Quality

As explained further in the Methodology discussion below, several representative viewpoint locations were selected from which viewers in the surrounding area are afforded views of the proposed project site. These viewpoints support the impact analysis related to the site and surrounding area's visual character and quality, and are characteristic of the various viewing angles, distance zones, visibility conditions, and surrounding landscape. The viewpoints are captured in photographs taken of the project site during the field study. The location of these photographs and their relationship to the project site are depicted on **Figure 3.1-22**. The photographs represent existing viewpoints on campus and in the surrounding area. **Table 3.1-1** lists the identified viewpoints and provides location, approximate distance and orientation to the project site, viewing angle/observer position, and general visibility conditions to the project site.

Table 3.1-1
Campus Viewpoints and General Visibility

Key Viewpoint	Location	Approximate Distance/Orientation to Project Site	Viewing Angle/Observer Position	General Visibility Conditions to Project Site
KV1	Victoria Street at Birchknoll Drive	100 feet north of campus	North of campus looking south	Limited visibility
KV2	Victoria Street at Cedar Bluff Way	100 feet north of campus	North of campus looking south	Clear visibility
KV3	Victoria Street near Tamcliff Avenue	100 feet north of campus	North of campus looking south	Clear visibility
KV4	Eddington Drive south of University Drive	200 feet south of campus	South of campus looking north	Limited visibility
KV5	University Drive near Annalee Avenue	50 feet south of campus	South of campus looking north	Limited visibility
KV6	Glenn Curtiss Street at Birchknoll	On-campus	Eastern portion of campus looking north	Limited visibility
KV7	University Drive and Central Avenue	100 feet southeast of campus	Southeast of campus looking northwest	Limited visibility
KV8	Avalon Boulevard and Victoria Street	100 feet northwest of campus	Northwest of campus looking southeast	Limited visibility
KV9	Avalon Boulevard at Stub Hub Center	100 feet west of campus	West of campus looking east	Limited visibility
KV10	Glenn Curtiss Street near Central Avenue	On-campus	East of campus looking west	Clear visibility
KV11	Central Avenue near Beachy Place	100 feet east of campus	East of campus looking west	Clear visibility

Figure 3.1-22
Campus Viewpoints



Views from North of the Campus, Looking South. Limited views of campus are available to both single- and multi-family residential developments north of Victoria Street. These homes are no more than two stories in height and behind walls or chain link fences; therefore, clear views of the campus are not possible from these locations. Only pedestrians and motorists would have clear views when looking south, toward campus. Views of the campus are of moderate visual quality since limited campus landscaping elements or academic core buildings would be in clear view. (See **Figures 3.1-23** through **3.1-25**, Campus Viewpoints.)

Figure 3.1-23
(KV1): View Along Victoria Street From Birchknoll Drive Looking South Towards Campus

Figure 3.1-24
(KV2): View Along Victoria Street From Entrance To Single-Family Residential Neighborhood North Of Victoria Street At Cedar Bluff Way Looking South Towards Campus

Figure 3.1-25
(KV3): View Along Victoria Street Near Single-Family Residential Neighborhood North of Victoria Street and East of Tamcliff Avenue Looking South Toward Campus

Views from South of the Campus, Looking North. Homes located south of University Drive also have limited campus views. The residential areas are composed of predominantly single-family homes situated behind five- to eight-foot high block walls, depending on grade changes. Large mature trees along the campus periphery block most campus views, and campus buildings are located at least 200 feet or more from the residences. Views when looking north are of low visual quality, with no unique landscapes or built features visible from areas to the south. Views to the north from within the campus are similarly low quality due to a lack of unifying elements and vivid features and interjection of functional elements (utility poles, construction equipment, etc.) that detract from the cohesiveness of views, as well as poor housekeeping in some areas. (See **Figures 3.1-26** through **3.1-29**, Campus Views.)

Figure 3.1-26
(KV4): View of Velo Sports Center From Single-Family Residential Homes on Eddington Drive

Figure 3.1-27
(KV5): View Along University Drive Near Residential Neighborhoods On Annalee Avenue Looking North Across Campus Toward Birchknoll Drive

Figure 3.1-28
(KV6): View From Glenn Curtiss Street North Along Birchknoll (On-Campus)

Figure 3.1-29
(KV7): View From University Drive And Central Avenue
Looking Northwest Toward Campus

Views from West of the Campus, Looking East. Campus landscaping, athletic fields and the StubHub Center are the predominant features in the views of campus when looking east. Views when looking east are of moderate visual quality due to the dense landscaping and built features visible from areas to the west. (See **Figures 3.1-30** and **3.1-31**, Campus Views.)

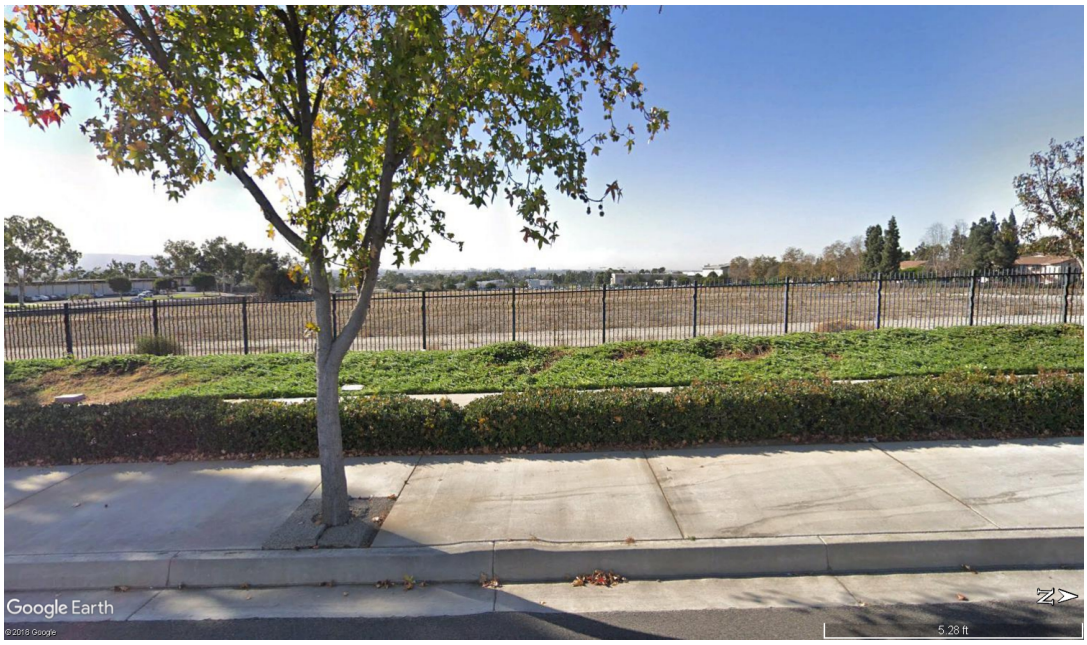
Figure 3.1-30
(KV8): View From Avalon Boulevard And Victoria Street Looking Southeast Toward Campus

Figure 3.1-31
(KV9): View From Avalon Boulevard Looking East Toward The StubHub Entrance Gate

Views from East of the Campus, Looking West. Views from the east are available to faculty and staff, as well as motorists and pedestrians. Views when looking west are of moderate visual quality due to open nature of this less developed portion of the campus and the availability of distant skyline views. (See **Figures 3.1-32** and **3.1-33**, Campus Views.)

Figure 3.1-32
(KV10): View From the East Side of Campus on Glenn Curtiss Street Looking West Across Campus

Figure 3.1-33
(KV11): View from Central Avenue Looking West Across Campus



Light and Glare

The project site is located within and adjacent to an existing urban area that is exposed to nighttime lighting. Primary nighttime lighting sources near the project site include building interior lights, campus parking lots, the StubHub Center, and other exterior campus lighting (i.e., lighting used to illuminate walkways and security lighting). In addition, streetlights installed along adjacent roads, and interior and exterior lighting installed on private residential property and industrial buildings contribute nighttime lighting to the existing visual environment.

Sources of glare in the project vicinity primarily consist of glass windows in campus and off-campus facilities and structures. There are no campus buildings with extensive glass facades and the buildings' colors are from a soft palette.

Environmental Impacts

Methodology

The following discussion provides an overview of the methodology that was used to determine the potential change in the visual environment that would occur as a result of the proposed project.

The natural and built environment define visual character and quality. The character of a view is based largely on topography, general land use patterns, scale, form, and the presence of natural areas. Visual quality refers to the aesthetics of a view based on the related degree of vividness, intactness, and unity. Generally, the vividness, intactness, and unity of a view determine visual quality.

The visual character and quality of the natural and built environment on campus and surrounding the campus were assessed through field observations, and review of photographic images and aerial maps. The information was used to help characterize the local setting, evaluate the visual character of the CSUDH campus, and identify sources of on- and off-campus lighting. Observations were recorded via photographs taken with Global Positioning System (GPS)-enabled personal devices.

The visual setting assessment included a "viewpoints/viewshed" analysis to determine the areas in which the proposed project components would be visible. The viewshed (extent to which the project is visible) was determined through review of aerial photography, topographic maps, and field surveys. Representative views of the proposed project area were selected and recorded at on- and off-site locations.

A photographic inventory within the viewshed was completed to document the visual resources and visual setting, and to illustrate the existing visual character of the project site and surrounding area. Aerial photography and field surveys were used to identify land use types and potential viewers (those who have views of the proposed project site). Public vantage points including roadways from which views to the project site were likely to be available were identified using aerial photography and topographic maps.

Visibility to the project site from these identified vantage points was verified during the field survey. Existing views from select public vantage points were documented and photographed. Public vantage points were selected as representative views of the project site that would be available to viewers in the surrounding area.

The presence of scenic vistas in the surrounding area was determined through a review of aerial photographs, field surveys and policy documents. The existence of eligible and officially designated state scenic highways was determined using the Caltrans Scenic Highway Program.

The above data was assembled to determine the existing visual quality and character of the project area, identify viewers and scenic resources, and establish viewpoints for use in evaluating the potential visual impacts in relation to established significance criteria. Visual changes and level of significance were evaluated based on the number of viewers affected, duration of the anticipated view, line-of-sight in relation to whether interrupted, peripheral, or direct views would be substantially affected, distance of the view (foreground, mid-ground, or background), change in visual character or quality, and effects on identified resources. Anticipated visual changes were then assessed to determine whether a significant impact (i.e., a substantial adverse change in the environment) would result for viewers located within the project area in relation to identified significance criteria. Where a significant impact would result, mitigation measures are recommended to reduce the identified impact. Where mitigation is proposed, the analysis also includes an evaluation to determine the level of significance following implementation of any identified proposed mitigation measures.

Significance Thresholds

Based upon Appendix G of the CEQA Guidelines, the determination of whether the proposed project would have a potentially significant impact related to aesthetics is based on the following criteria:

Threshold 1: Would the project have a substantial adverse effect on a scenic vista?

Threshold 2: Would the project substantially damage scenic resources, including, but not limited to, trees, rock outcroppings, and historic buildings within a state scenic highway?

Threshold 3: Would the project conflict with applicable zoning and other regulations governing scenic quality?

Threshold 4: Would the project create a new source of substantial light or glare which would adversely affect day or nighttime views in the area?

The significance determination for Threshold 4 (lighting impacts) is made with consideration given to the following factors:

- The change in ambient nighttime levels as a result of project sources; and
- The extent to which project lighting would spill off the project site and affect adjacent light-sensitive areas.

Based on these factors, the regulatory requirements identified above, and IESNA definition of glare, the proposed project would have a significant light or glare impact on a sensitive receptor (residential uses or commercial or institutional land uses that require minimal nighttime illumination) if:

- Project lighting generates light emissions that produce a light intensity exceeding 0.74 foot-candles at the property line of a residence or other sensitive receptor; or
- Project lighting creates new high contrast conditions (contrast ratio over 30:1) visible from a field of view from a residential use or other sensitive receptor.

Project Impacts

Would the project have a substantial adverse effect on a scenic vista?

There are no designated scenic vistas in the immediate project area, within the City of Carson, or within or surrounding the CSUDH campus. The CSUDH campus is located within an existing developed community. (See **Figures 3.1-23** through **3.1-33**, Campus Views.)

Due to the relatively flat nature of the campus and surrounding topography, views of distant vistas (i.e., skyline, Port of Los Angeles, Palos Verdes Peninsula) are limited to corridor views along adjacent streets and across parking lots and undeveloped parcels with limited or non-existent structures that do not block views. Views are limited and often partially obscured by elements within the urban landscape (utility poles, mature trees, and fencing). (See **Figures 3.1-18** through **3.1-21**, Scenic Views and Figure **3.1-34**, Vista View.)

Figure 3.1-34
View From Stub Hub Center Along Avalon Boulevard Looking Southwest Towards the Palos Verdes Peninsula and Port of Los Angeles

The Palos Verde Peninsula and Port of Los Angeles are not visible from the west side of the campus. The skyline is flat and dominated by retail, single-family residential homes, utility lines, and palm trees.

Proposed project development would occur within the campus core in previously developed areas that include multi-story structures and mature vegetation, and thus would not have the potential to block distant vistas. The southeast portion of campus abutting Central Avenue and University Drive is less developed, and consists of a parking lot and campus maintenance facilities. Views from within and across campus are more expansive and from some vantage points can extend to the distant horizon. Views across Central Avenue and University Drive are limited by trees, earthen berms, and fencing. Views of distant vistas are limited, partially blocked by trees and fencing or non-existent. As proposed, this area would be developed to include a parking structure, campus support facilities, and a business park. Based on views from, across, and within the previously developed areas, the proposed development would have limited to no effect on existing views of distant vistas.

In addition, the Landscape Guidelines and the Design Guidelines would direct campus development ensuring a complementary interface between the campus and surrounding areas and where possible would take advantage of potential views.

Therefore, the proposed project would result in no impact, or less-than-significant impacts, on scenic vistas.

Would the project substantially damage scenic resources, including, but not limited to trees, rock outcroppings, and historic buildings within a state scenic highway?

There are no scenic highways in the City of Carson, in the immediate project area, or within or surrounding the CSUDH campus. SR 91 and I-405 are not designated scenic highways and are not visible to or from the CSUDH campus in any event. As a result, the project would not substantially damage scenic resources, including, but not limited to, trees, rock outcroppings, and historic buildings within a state scenic highway. Therefore, the project would result in no impact to scenic resources within a state scenic highway.

Would the project conflict with applicable zoning and other regulations governing scenic quality?

As a state agency, CSU is not subject to local zoning ordinances, plans, policies, and guidelines. Therefore, there are no applicable zoning or other regulations governing scenic quality relating to the proposed project. Nonetheless, as addressed below, the proposed project is not anticipated to substantially degrade the existing visual character or quality of the site and its surroundings.

Construction/Temporary Impacts

Potential visual impacts would arise from construction activities (i.e., barricade installation, construction staging, and grading). Additionally, the presence of trucks with building materials and equipment would result in short-term visual impacts. However, these activities would be visible only from adjacent properties, and much of the Core Campus and University Village construction work would be centralized to the campus interior. Additionally, while construction staging could be unsightly, it would be short in duration, and not expected to pose a significant impact on sensitive viewers.

In addition, construction would be limited to daytime hours; and therefore, use of construction lighting would be minimal and no significant artificial lighting impacts are anticipated during construction.

Operation/Permanent Impacts

Overall, project development would result in a change in the visual appearance of the project site. However, proposed project elements would be consistent with the educational/institutional appearance of the existing campus buildings. The project improvements would result in a slow transition toward more intense uses with buildings, vibrant open space areas, and reinvigorated sustainable landscaping within the campus core and eastern and southeastern areas of the campus. Heights of the proposed buildings (four to six stories) would be consistent with the general height and character of the existing campus buildings. Additionally, grade changes to the campus would be incorporated into the proposed project design.

The general character of the existing campus would remain intact with most of the proposed changes occurring in areas adjacent to industrial uses or internal to the campus core. The proposed mixed-use area would be similar in character to the more modern and

upscale development characterized by the Dominguez Hills Village residential development north of Victoria Street. The proposed business park would be similar in scale to the adjacent industrial uses east of Central Avenue. Areas adjacent to surrounding residential communities would remain the same or would include less intense uses (campus support facilities, open space, and parking). Redeveloped areas would transition to a renewed, vibrant and modern college campus with uses compatible with the site's designation as a public facility. The transition includes the use of extensive landscaping and open space to connect uses. (See **Figures 3.1-35** through **3.1-38**, Architectural Renderings.)

Figure 3.1-35
View Looking Northeast at Proposed Village and Village Green Development Along Birchknoll Drive

Figure 3.1-36
View Looking South From Victoria Street at Proposed
University Village Mixed Use Development Along Dominquez Hills Parkway

Figure 3.1-37
Proposed Pedestrian Plaza, Sculpture Garden and
Grand Staircase to Upper Campus Level

Figure 3.1-38
View Looking Southeast From Victoria Towards
Proposed Business Park and University Village

The proposed improvements are intended to enhance campus resources while maintaining the same general structure of the existing campus layout. Areas that are currently underutilized would be developed as campus housing, retail, business, and campus support services. Proposed uses would remain consistent with a college campus environment and support the goals of the 2018 Guidelines. The business park and retail area are intended to be compatible with and supportive of campus uses. The additional housing would meet the needs of increasing student enrollment. Improvements proposed within the campus core and recreational areas would provide for improved use of existing facilities, as well as new, appropriately located facilities. Design and development of these new facilities would be guided by the 2018 Guidelines and University Village Design Guidelines. Architectural forms and materials proposed for new structures are intended to achieve a renewed campus aesthetic while maintaining harmony with existing buildings, as well as outdoor spaces (2018 Guidelines, Chapter 3, and Section C.3, University Village Design Guidelines).

Proposed improvements at campus entry points would enhance the campus identity and presence within the community. The comprehensive landscape plan provides for visual buffering to separate and reduce the visibility of campus uses where appropriate, as well as a unifying theme, leisure and recreational opportunities and visual identity (2018 Guidelines, Chapter 5, and Section C.4, University Village Design Guidelines).

The proposed improvements would be compatible with and supportive of the existing campus uses, as well as the campus' designation as a public facility, and not substantially degrade the existing visual character or quality of the site and its surroundings.

Key Viewpoints. Several key observation viewpoints were used in this assessment (see **Table 3.1-1**). The locations of selected key observation viewpoints are presented in **Figures 3.1-23** through **3.1-33**, Campus Views. The key observation viewpoints present static images of the project site from the selected public key viewing locations in the

surrounding area where conditions generally afford clear visibility to the project site or development areas. An evaluation of the existing visual character and anticipated project effects is provided by key view location below.

Key Viewpoint 1 – Victoria Street

Existing view is of campus parking and screened daycare facility. The existing visual quality is low due to the primarily utilitarian aspect of this key view. This area is proposed for development of the University Village Center (see **Figure 3.1-35**). The proposed mixed-use area would be similar in character to the more modern and upscale development characterized by the Dominguez Hills Village residential development north of Victoria Street. Design and development of the University Village would be guided by the 2018 University Village Design Guidelines to achieve a renewed campus aesthetic while maintaining harmony with existing buildings, as well as outdoor spaces. The general campus character would remain intact, but would be enhanced with decorative paving, modern building materials, increased landscaping, and specialty lighting.

Key Viewpoint 2 – Victoria Street

Existing view is of frontage area to main campus core. The existing visual quality is moderate due to the large mature trees and generally harmonious visual appearance. Views of core campus buildings are limited and any changes to the core campus would not be visible from this viewpoint. No changes in visual quality or character would occur.

Key Viewpoint 3 – Victoria Street

Existing view is of Welch Hall from Victoria Street. The existing visual quality is moderate due to the vividness of the structure and unifying nature of the large mature trees. Proposed campus changes would not be visible from this location. No changes in visual quality or character would occur.

Key Viewpoint 4 – Eddington Drive

Existing view is of the StubHub Center located east of Avalon Boulevard. Existing visual quality is low due to a lack of distinct features and minimal unifying features. Proposed campus changes would not be visible from this location. No changes in visual quality or character would occur.

Key Viewpoint 5 – University Drive

Existing view is of the eastern portion of the campus looking north. The existing visual quality is low due to a lack of distinct features and general housekeeping. This area is proposed for development of a parking structure, surface parking lot, and new low-rise campus structures. The development would be buffered by newly landscaped open space areas. While the development would be a more intense use of this area, it is expected to enhance the visual quality through improved landscaping, unified architectural treatments, thoughtful facility siting and infrastructure screening. Visual quality and

character would be improved because of carefully planned and integrated campus features and visual buffering using an enhanced landscape palette.

Key Viewpoint 6 – Glenn Curtiss Street

Existing view is of undeveloped portions of the eastern campus along Glenn Curtiss Street. This area is proposed for development of a surface parking lot, business park, and residences. The development would be a more intense use of this area and will greatly change the physical appearance of the area. The proposed development is in keeping with the 2018 Guidelines, which frames the aesthetic direction for buildings, such as their orientation to open space and circulation systems and their form, including massing, materials and color. The development is expected to enhance the existing visual quality creating a balanced aesthetic character and enhanced landscape theme.

Key Viewpoint 7 – University Drive

Existing view is of an undeveloped portion of the eastern campus along University Drive and Central Avenue. This area is proposed for development of a surface parking lot, business park and campus support facilities. The development would be a more intense use of this area and will greatly change the physical appearance of the area. The proposed development is in keeping with the 2018 Guidelines, which frames the aesthetic direction for buildings, such as their orientation to open space and circulation systems and their form, including massing, materials and color. The development is expected to enhance the existing visual quality creating a balanced aesthetic character and enhanced landscape theme.

Key Viewpoint 8 – Avalon Boulevard

Existing view is of one of the main campus monuments at the corner of Avalon Boulevard and Victoria Street. The existing visual quality is moderate due to the iconic monument and unified landscaping consisting primarily of large mature trees and grassy parkways. Proposed campus changes would not be visible from this location. No changes in visual quality or character would occur.

Key Viewpoint 9 – Avalon Boulevard

Existing view is of the entrance gate to the Stub Hub Center from Avalon Boulevard. The existing visual quality is moderate due to the distinct signage and unified landscaping. No physical changes are proposed in this location. No changes in visual quality or character would occur.

Key Viewpoint 10 – Glenn Curtiss Street

Existing view is of undeveloped portions of the eastern campus along Glenn Curtiss Street. The existing visual quality is moderate due to the extended views and relatively intact and harmonious land uses. This area is proposed for development of a surface parking lot, business park and residences. The development would be a more intense use of this area and will greatly change the physical appearance of the area. The proposed

development is in keeping with the Campus Master Plan and will be guided by the design guidelines, which frames the aesthetic direction for buildings, such as their orientation to open space and circulation systems and their form, including massing, materials and color. The development is expected to enhance the existing visual quality creating a balanced aesthetic character and enhanced landscape theme.

Key Viewpoint 11 – Central Avenue

Existing view is of undeveloped portions of the eastern campus along Central Avenue. The existing visual quality is moderate due to the extended views and unifying landscaping and fencing. This area is proposed for development of a business park and residences. The development would be a more intense use of this area and will greatly change the physical appearance of the area. The proposed development is in keeping with the Campus Master Plan and will be guided by the design guidelines, which frames the aesthetic direction for buildings, such as their orientation to open space and circulation systems and their form, including massing, materials and color. Existing views to more distant vistas would no longer be available; however, a limited number of viewers are able to take advantage of the views as they are either driving or working, and they are not sensitive viewers (motorists and business park employees). The development is expected to be compatible with the existing visual character and quality of the adjacent industrial park.

Key Viewpoints Impacts Summary

Given the visual character and quality impacts described above, potentially significant aesthetic impacts are not associated with proposed project implementation, as experienced at Key Views [**Figures 3.1-23** through **3.1-33**]. As such, the proposed project would not substantially degrade the existing visual character or quality of the site and its surroundings. The proposed project's architectural style, massing, and scale generally would be consistent with the existing campus structures, and as a result, proposed project operation would not result in potentially significant impacts to the existing visual character or quality of the site and its surroundings.

Would the project create a new source of substantial light or glare which would adversely affect day or nighttime views in the area?

Construction/Temporary Impacts

Proposed project construction generally would occur during daytime hours and typically would not require nighttime lighting. However, nighttime lighting necessary for security purposes may be installed on site and during winter months when daylight hours are reduced, and portable construction lights may be used. Temporary, short-term lighting impacts associated with construction activities would be limited to these lighting sources. Sensitive receptors in the surrounding area potentially affected by nighttime construction lighting and susceptible to diminished nighttime views consist of nearby residents. Although nighttime lighting sources including interior lighting at on-campus facilities, parking lot lighting, street lighting, and field lighting are all located on the project site

and operate in the project vicinity, the construction lighting could affect existing nighttime views in the project area and/or generate glare if not properly shielded and directed/focused onto construction areas.

However, the project will include methods to control and direct outdoor lighting during construction as a means to minimize light trespass. As a result, use of lighting on the project site during construction would not adversely affect nighttime views in the area and impacts would be less than significant.

Operational/Permanent Impacts

Lighting

The campus is separated from adjacent residential uses by Victoria Street, Avalon Boulevard and University Drive. Existing light sources on campus and within the surrounding community include residential lighting, security lighting for parking lots and structures, sidewalks and pathways, recreational lighting (playing fields and sports venues) and general lighting associated with urban environments (electronic signs, billboards, street lights, traffic signals, etc.).

The project includes potential uses that could impact nighttime lighting, including new retail, business park, residential, parking structures, and a play field with associated lighting for wayfinding, safety, security, recreation and general illumination. Site lighting would include lighting for pathways, parking areas and buildings. Potential future traffic signals at key entry/exit points to the campus to improve safety and operation are considered as part of the project, including at internal campus roadways that intersect with Victoria Street, Central Avenue and University Drive. At night these light sources may spill over into adjacent areas if not properly focused or screened. Lighting associated with the proposed new facilities would be designed to reduce overspill lighting onto adjacent areas while providing enough light to accent building features and enhance security. Down lights, interior lights from store windows, accent lighting to wash building facades, and foot lights would create a safe atmosphere encouraging nighttime use of retail spaces while minimizing overspill.

Nighttime lighting conditions were documented at several receptor locations surrounding the proposed project site to define the range of existing lighting conditions and views from the surrounding properties and streets to the project site. The industrial facilities to the north and east of the project site have exterior security lighting and generally are well lit at night. Central Avenue has standard street lighting fixtures that illuminate the sidewalk and street.

Existing illuminance (fc) were measured at each receptor site (shown in **Figure 3.1-39**) in the project vicinity, and recorded in **Table 3.1-2**, below. The measured illuminance data are consistent with an urban lighting condition, with relatively high illuminance at the street and sidewalk within the public right of way, and high illuminance within the private properties for safety and security.

Figure 3.1-39
Locations of Existing Illuminance Measurements

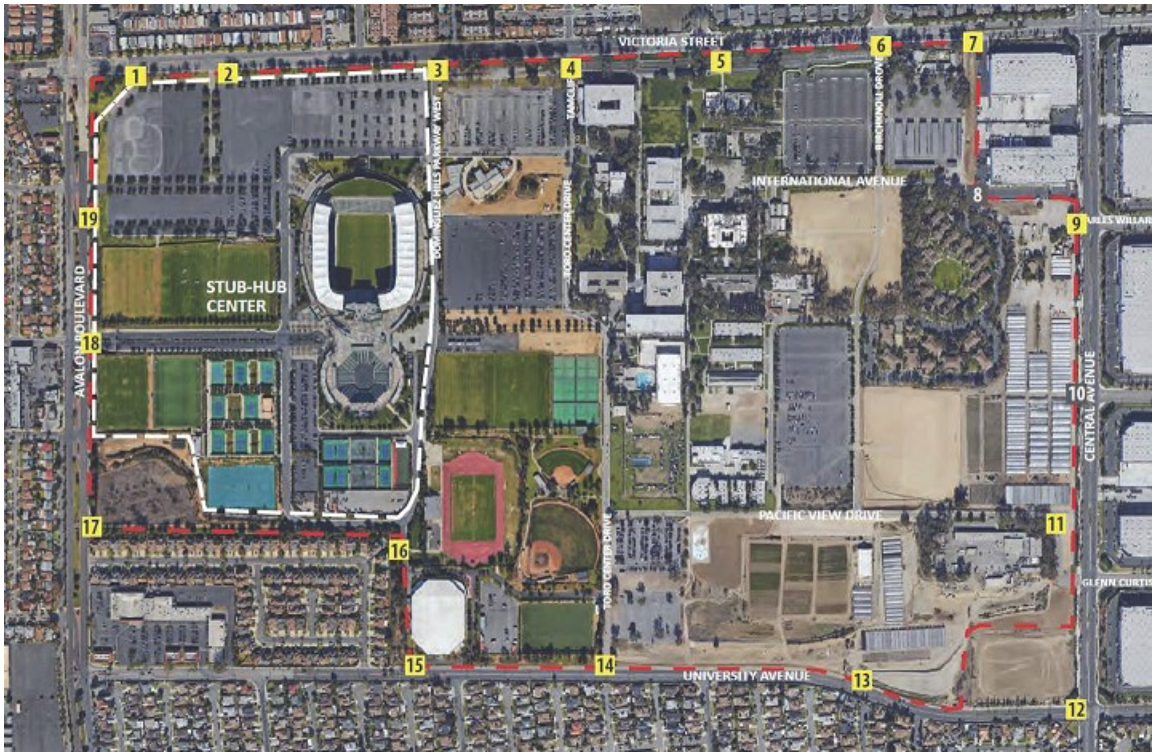


Table 3.1-2
Summary of Existing Illuminance Measurements at Receptor Sites

ID	Location Type	Location Description	LOS Reading (fc)	Ground Reading (fc)	Comments
1	Intersection	Avalon at Victoria	0.00	1.96	Note glare from existing parking lot lighting.
2	Midblock	Victoria between Avalon and Dom. Hills Pkwy. West	0.05	0.23	Note glare from existing parking lot lighting.
3	Intersection	Victoria at Dom. Hills Pkwy. West	0.00	0.04	Note glare from existing parking lot lighting.
4	Intersection	Victoria at Toro Center	0.30	0.67	Note glare from existing roadway lighting.
5	Midblock	Victoria between Toro Center and Birchknoll	0.06	0.08	Note glare from existing building and site lighting.
6	Intersection	Victoria at Birchknoll	1.50	3.27	Note glare from existing parking lot and signage lighting.

Table 3.1-2
Summary of Existing Illuminance Measurements at Receptor Sites

ID	Location Type	Location Description	LOS Reading (fc)	Ground Reading (fc)	Comments
7	Midblock	Victoria between Birchknoll and Central	0.00	0.07	
8					Unable to access – private property.
9	Intersection	Central at Charles Willard	0.06	0.09	Non-functioning shoe-box type roadway light at intersection.
10	Intersection	Central at Beachey			Unable to access – safety issue.*
11	Intersection	Central at Glenn Curtiss	0.00	0.10	Note glare from existing parking lot lighting.
12	Intersection	Central at University	0.39	0.34	
13	Midblock	University between Toro Center and Central	0.11	0.28	
14	Intersection	University at Toro Center	0.64	0.46	Note glare from existing sports field lighting.
15	Midblock	University between Pepperdine and Toro Center	0.00	0.00	Note glare from existing parking lot lighting.
16	Intersection	Campus Roads	0.00	2.22	
17	Midblock	Avalon between Loyola and Gate A	0.04	0.06	Note glare from existing sports field lighting.
18	Intersection	Avalon at Gate A	0.85	1.04	Note glare from existing venue and signage lighting.
19	Midblock	Avalon between Gate A and Victoria	0.00	0.00	Note glare from existing parking lot lighting.

Note:
* Loitering.

Proposed project development would introduce new interior and exterior lighting to the project site. In addition to interior building lighting and exterior building lighting installed for security and general illumination purposes, new lighting fixtures and elements would be provided for the proposed plaza and courtyard areas, pedestrian walkways, recreation areas, and other outdoor common areas. Proposed landscaping would shield off-site residents, pedestrians, and motorists from lighting and spillover

impacts, and proposed exterior lighting would be similar to lighting for any residential area.

Project lighting must conform to the CALGreen requirements, which stipulate that the light from project building and general site lighting must not exceed 0.74 fc at the project boundary, which for purposes of this analysis, is identified as the Campus Master Plan boundary to the west, south, east, and north of the project site. Building lighting must comply with the light trespass limits under CALGreen, and will require a method to restrict reflected light from the proposed project to illuminance less than 0.74 fc. Street, parking lot and pedestrian lighting will be coordinated with the University and SCE. All lighting would be required to meet local codes and standards, campus standards, and Engineering Society of North America (IESA) guidelines.

If necessary, to meet light trespass limits, methods to limit the illuminance at vertical planes may include lights directed away from the adjacent property lines, architectural shading and structures, vertical louvers, shading systems deployed while the lights are active, or addition of an architectural screen to further shield the light from a project. The 2018 Guidelines incorporate some of these methods, contain design guidelines that direct the siting, orientation and placement of proposed structures to take advantage of natural light. The Guidelines reduce the need for excessive day and nighttime lighting. In addition, the University Village Design Guidelines will direct development within the University Village area, and will help ensure that lighting is placed appropriately and directed towards intended uses so that impacts from new sources of light would be minimized on the surrounding community.

Specifically, Section C.3 (Architectural Design Guidelines) addresses lighting and includes language directing the design of lighting to minimize spill-over onto neighboring residential living areas. Also, lighting is addressed in Section C.4 (University Village Landscape Architectural Design Guidelines) and Section C.5 (Civil, Electric Power and Mechanical Systems: Design and Site Development Guidelines and Criteria). These sections pertain to light fixtures and placement, which would be required to adhere to a certified lighting professional's recommendations and guidelines set forth by the Dark Sky Association.

With considerations of lighting fixtures and placement, illuminance levels, and incorporation of design features, lighting related impacts would be less than significant.

Glare

General sources of glare include reflective surfaces (building facades, widows, cars, light-colored paving and walls), excessive lighting (spotlights, floodlights, and headlights) and outdoor lighting (landscapes, pathways, entries/exits, and signs). The proposed retail, business, residential and parking structures have the potential to create glare if not adequately screened, shaded or diffused. To reduce the effects of glare from buildings, structures would receive architectural and landscape treatments designed to limit their visual impact and reduce the effects of reflective surfaces.

The Guidelines encourage building siting, orientation, and shading in a manner that reduces sun exposure to help minimize glare. To reduce the potential for glare, use of polished/highly reflective metal materials on building facades would be prohibited (Chapter 7, 2018 Guidelines). Parking lots would be shaded by trees or solar structures to reduce glare (2018 Guidelines, Section 7.6; and University Village Design Guidelines, Section C-4).

To reduce potential glare from excessive lighting, light sources would be directed toward the intended use to minimize overspill while maintaining adequate light for safety, visibility, and effect.

In addition, any glass used on the building facades would have a low reflective index that would minimize glare. Non-reflective building materials would be used, consistent with the materials on existing buildings on campus. Additionally, existing and proposed landscaping would further reduce adverse glare impacts. With considerations of architectural building materials, and incorporation of design features, impacts related to glare would be less than significant.

Cumulative Impacts

Potential cumulative visual impacts could occur if other projects when combined with the proposed project cumulatively contribute to the degradation or deterioration of the visual setting or damage scenic views or vistas. The study area for the cumulative visual impact analysis would consist of the general area in the immediate vicinity of the campus, including those areas that can be viewed from, or have views of, the campus. Generally, all off-campus projects would be developed in accordance with approved community design plans and public input in an effort to minimize potential visual impacts.

The project would not change the basic design attributes of the campus. In addition, operational procedures and policies governing proposed project implementation are premised upon avoidance of environmental impacts, good community relations, and enhancing aesthetics. In addition, no significant resources, scenic vistas, or views have been identified in local plans that would be cumulatively affected by related projects. As a result, projects in the surrounding area and the proposed project are not expected to result in significant cumulative aesthetic impacts.

Mitigation Measures

Based on the above analysis, the proposed project would not result in any significant impacts on scenic resources or scenic vistas on campus or its vicinity. Further, the project will not result in new sources of substantial light or glare that would adversely affect day or nighttime view on campus or in the area. Accordingly, no mitigation measures are required.

3.2 Air Quality

This section examines the potential short-term construction and long-term operational air quality impacts associated with the 2018 Campus Master Plan (proposed project). Modeling input and output files associated with the emissions inventory data presented in this section are located in **Appendix B.2** of this EIR.

Environmental Setting

Air Quality Background

The CSUDH campus is located within the South Coast Air Basin (Air Basin), an approximately 6,745-square-mile area bounded by the Pacific Ocean to the west and the San Gabriel, San Bernardino, and San Jacinto Mountains to the north and east. The Air Basin includes all of Orange County and the non-desert portions of Los Angeles County and Riverside and San Bernardino Counties, in addition to the Coachella Valley area in Riverside County. The regional climate within the Air Basin is considered semi-arid and is characterized by warm summers, mild winters, infrequent seasonal rainfall, moderate daytime onshore breezes, and moderate humidity. The air quality within the Air Basin is primarily influenced by meteorology and a wide range of emissions sources, such as dense population centers, heavy vehicular traffic, and industry.

Air pollutant emissions within the Air Basin are generated primarily by stationary and mobile sources. Stationary sources can be divided into two major subcategories: point and non-point area sources. Point sources occur at a specific location and are often identified by an exhaust vent or stack. Examples include boilers or combustion equipment that produce electricity or generate heat. Non-point sources, on the other hand, are widely distributed and include such sources as residential and commercial water heaters, architectural coating applications, landscaping equipment, and some consumer products. Mobile sources refer to emissions from transportation-related activities, including tailpipe and evaporative emissions, and are classified as either on-road or off-road. On-road sources may be legally operated on roadways and highways. Off-road sources include aircraft, ships, trains, and self-propelled construction equipment. Air pollutants can also be generated by the natural environment, such as when high winds suspend fine dust particles.

Both the federal and state governments have established air standards for outdoor concentrations of various air pollutants in order to protect the public health and welfare. These pollutants are referred to as "criteria air pollutants" as a result of the specific standards, or criteria, which have been adopted for them. The national primary standard and state air standard have been set at levels considered safe to protect public health, including the health of sensitive populations, such as asthmatics, children, and the elderly with an adequate margin of safety. The national secondary standard has been set at levels and to protect public welfare, including protection against decreased visibility and

damage to animals, crops, vegetation, and buildings. The national and state criteria pollutants and the applicable standards are summarized in **Table 3.2-1.**

Table 3.2-1
National and State Air Standards

Pollutant	Averaging Period	State Standard[a]	National Primary Standard[a]	Los Angeles County Attainment Status[b]	
				State Standard[c]	National Standard[d]
Ozone (O_3)	1 hour	0.09 ppm (180 µg/m^3)	—	Non-Attainment (Extreme)	—
	8 hour	0.07 ppm (137 µg/m^3)	0.070 ppm (137 µg/m^3)	Non-Attainment (Extreme)	Non-Attainment (Extreme)
Respirable Particulate Matter (PM_{10})	24 hour	50 µg/m^3	150 µg/m^3	Non-Attainment	Attainment (Maintenance)
	Annual	20 µg/m^3	—	Non-Attainment	—
Fine Particulate Matter ($PM_{2.5}$)	24 hour	—	35 µg/m^3	—	Non-Attainment
	Annual	12 µg/m^3	12 µg/m^3	Non-Attainment	Non-Attainment
Carbon Monoxide (CO)	1 hour	20 ppm (23 mg/m^3)	35 ppm (40 mg/m^3)	Attainment	Attainment (Maintenance)
	8 hour	9.0 ppm (10 mg/m^3)	9 ppm (10 mg/m^3)	Attainment	Attainment (Maintenance)
Nitrogen Dioxide (NO_2)	1 hour	0.18 ppm (339 µg/m^3)	0.10 ppm (188 µg/m^3)	Attainment	Unclassified/ Attainment
	Annual	0.030 ppm (57 µg/m^3)	0.053 ppm (100 µg/m^3)	Attainment	Unclassified/ Attainment
Lead (Pb)	30-day average	1.5 µg/m^3	—	Attainment	—
	Rolling 3-month average	—	0.15 µg/m^3	—	Non-Attainment
Sulfur Dioxide (SO_2)	1 hour	0.25 ppm (655 µg/m^3)	0.075 ppm (196 µg/m^3)	Attainment	Attainment
	3 hour	—	0.5 ppm (1,300 µg/m^3)	—	Attainment
	24 hour	0.04 ppm (105 µg/m^3)	—	Attainment	—
Hydrogen Sulfide (H_2S)	1 hour	0.03 ppm (42 µg/m^3)	—	Unclassified	—
Vinyl Chloride	24 hour	0.01 ppm (26 µg/m^3)	—	Unclassified	—

Table 3.2-1
National and State Air Standards

Pollutant	Averaging Period	State Standard[a]	National Primary Standard[a]	Los Angeles County Attainment Status[b]	
				State Standard[c]	National Standard[d]
Sulfates	24 hour	25 µg/m^3	—	Attainment	—
Visibility-Reducing Particles	8 hour	Extinction coefficient of 0.23 per kilometer (visibility of 10 miles or more due to particles when relative humidity is less than 70%)	—	Unclassified	—

[a] Ambient Air Quality Standards Chart (www.arb.ca.gov/research/aaqs/aaqs2.pdf). The national secondary standards are not shown here, but are in all cases the same as or less stringent than the corresponding primary standard, except that the SO_2 3-hour concentration is regulated in the secondary standard, but not in the primary standard.

[b] "Attainment" means that the regulatory agency has determined, based on established criteria, that the Air Basin meets the identified standard. "Non-attainment" means that the regulatory agency has determined that the Air Basin does not meet the standard.

[c] State standard attainment status based on State Area Designations maps (www.arb.ca.gov/desig/adm/adm.htm).

[d] National standard attainment status based on National Area Designations maps (www.arb.ca.gov/desig/adm/adm.htm).

Air Pollution and Potential Health Effects

Certain air pollutants have been recognized to cause health problems and consequential damage to the environment either directly or in reaction with other pollutants, due to their presence in elevated concentrations in the atmosphere. Such pollutants have been identified and regulated as part of the overall endeavor to prevent further deterioration and facilitate improvement in air quality within the Air Basin. The criteria air pollutants for which national and state standards have been promulgated and which are most relevant to current air quality planning and regulation in the Air Basin include ozone (O_3), respirable particulate matter (PM_{10}), fine particulate matter ($PM_{2.5}$), carbon monoxide (CO), nitrogen dioxide (NO_2), sulfur dioxide (SO_2), lead (Pb), and vinyl chloride (VC). In addition, toxic air contaminants (TACs) are of concern in the Air Basin. Each of these is briefly described below.

Criteria Pollutants

Ozone (O_3)

Ozone is a gas that is formed when volatile organic compounds (VOCs) and nitrogen oxides (NO_X)—both byproducts of internal combustion engine exhaust—undergo photochemical reactions in the presence of sunlight. Ozone concentrations are generally highest during the summer months when direct sunlight, light wind, and warm temperature conditions are favorable. An elevated level of ozone irritates the lungs and breathing passages, causing coughing and pain in the chest and throat, thereby increasing susceptibility to respiratory infections and reducing the ability to exercise. Effects are more severe in people with asthma and other respiratory ailments. Long-term exposure may lead to scarring of lung tissue and may lower lung efficiency.

Particulate Matter (PM_{10} and $PM_{2.5}$)

Particulate matter is a complex mixture of extremely small particles and liquid droplets. Some particles, known as primary particles are emitted directly from a source, such as construction sites, unpaved roads, smokestacks or fires. Others, known as secondary particles, form in complicated reactions in the atmosphere. The human body naturally prevents the entry of larger particles into the body. However, small particles, with an aerodynamic diameter equal to or less than 10 microns (PM_{10}) and even smaller particles, with an aerodynamic diameter equal to or less than 2.5 microns ($PM_{2.5}$), can enter the body and become trapped in the nose, throat, and upper respiratory tract. These small particulates potentially could aggravate existing heart and lung diseases, change the body's defenses against inhaled materials, and damage lung tissue. The elderly, children, and those with chronic lung or heart disease are most sensitive to PM_{10} and $PM_{2.5}$. Lung impairment can persist for two to three weeks after exposure to high levels of particulate matter. Some types of particulates also could become toxic after inhalation due to the presence of certain chemicals and their reaction with internal body fluids.

Carbon Monoxide (CO)

CO is primarily emitted from combustion processes and motor vehicles due to the incomplete combustion of fuel. Elevated concentrations of CO weaken the heart's contractions and lower the amount of oxygen carried by the blood. It is especially dangerous for people with chronic heart disease. Inhalation of CO can cause nausea, dizziness, and headaches at moderate concentrations and can be fatal at high concentrations.

Nitrogen Dioxide (NO_2)

NO_2 is a byproduct of fuel combustion and major sources including power plants, large industrial facilities, and motor vehicles. The principal form of nitrogen oxide produced by combustion is nitric oxide (NO), which reacts quickly to form NO_2, creating the mixture of NO and NO_2 commonly called NO_X. NO_2 absorbs blue light and results in a brownish-red cast to the atmosphere and reduced visibility. NO_2 also contributes to the formation of PM_{10}. NO_X irritates the nose and throat, and increases one's susceptibility to respiratory

effects and infections, especially in people with asthma. The principal concern of NO_X is as a precursor to the formation of ozone.

Sulfur Dioxide (SO_2)

Major sources of SO_2 include power plants, large industrial facilities, diesel vehicles, and oil-burning residential heaters. Emissions of SO_2 aggravate lung diseases, especially bronchitis. It also constricts the breathing passages, especially in asthmatics and people involved in moderate to heavy exercise. SO_2 potentially causes wheezing, shortness of breath, and coughing. High levels of particulates appear to worsen the effect of SO_2, and long-term exposures to both pollutants leads to higher rates of respiratory illness.

Lead (Pb)

Lead is emitted from industrial facilities and from the sanding or removal of old lead-based paint. Smelting or processing metal is the primary source of lead emissions, which is primarily a regional pollutant. Lead affects the brain and other parts of the body's nervous system. Exposure to lead in very young children impairs the development of the nervous system, kidneys, and blood forming processes in the body.

Volatile Organic Compounds (VOCs)

VOCs are typically formed from combustion of fuels and/or released through evaporation of organic liquids. Some VOCs are also classified by the State as TACs. While there are no specific VOC air standards, VOC is a prime component (along with NO_X) of the photochemical processes by which criteria pollutants, particularly ozone, nitrogen dioxide, and certain fine particles, are formed. They are thus regulated as "precursors" to formation of those criteria pollutants.

Vinyl Chloride (VC)

VC is a chemical building block, or monomer, used in the production of polyvinyl chloride (PVC). PVC is used to make materials, including pipes, used in the construction, packaging, electrical, and transportation industries. Major sources of VC include PVC production and fabrication facilities and, at the other end of PVC's life cycle, as PVC deteriorates, landfills and publicly-owned treatment works. VC is carcinogenic. Exposure to VC has been associated with a rare cancer, liver angiosarcoma, in workers, and with tumors of the liver, lungs, mammary glands and the nervous system in animals. The state air standard reflects the limit of detection for VC in ambient air when the standard was promulgated, in 1978. By 1990, when state staff prepared the technical support document for identifying VC as a TAC, VC had not been detected in ambient air at any of the samplers in the California Air Resources Board's (CARB) TAC monitoring network, although ambient hot spot sampling had detected VC at levels up to 150 percent of the standard. VC is primarily of concern as a carcinogenic TAC at hot spots. It is regulated as

a TAC to allow implementation of health-protective control measures at levels below the state air standard.[1]

Hydrogen Sulfide (H_2S)

H_2S is a colorless gas with the odor of rotten eggs. It is formed during bacterial decomposition of sulfur-containing organic substances. Also, it can be present in sewer gas and some natural gas, and can be emitted as the result of geothermal energy exploitation. Breathing H_2S at levels above the state air standard can result in exposure to a disagreeable odor.

Toxic Air Contaminants

TACs refer to a diverse group of "non-criteria" air pollutants that can affect human health, but have not had air standards established for them. This is not because they are fundamentally different from the pollutants discussed above, but because their effects tend to be local rather than regional. TACs are classified as carcinogenic and noncarcinogenic, where carcinogenic TACs can cause cancer and noncarcinogenic TACs can cause acute and chronic impacts to different target organ systems (e.g., eyes, respiratory, reproductive, developmental, nervous, and cardiovascular).

CARB and the Office of Environmental Health Hazard Assessment (OEHHA) determine if a substance should be formally identified, or "listed," as a TAC in California. The complete list of such substances is located at www.arb.ca.gov/toxics/id/taclist.htm.

Diesel PM (DPM), which is emitted in the exhaust from diesel engines, was listed by the State as a TAC in 1998. DPM has historically been used as a surrogate measure of exposure for all diesel exhaust emissions. DPM consists of fine particles (fine particles have a diameter less than 2.5 μm), including a subgroup of ultrafine particles (ultrafine particles have a diameter less than 0.1 μm). Collectively, these particles have a large surface area which makes them an excellent medium for absorbing organics. The visible emissions in diesel exhaust include carbon particles or "soot." Diesel exhaust also contains a variety of harmful gases and cancer-causing substances.

Exposure to DPM may be a health hazard, particularly to children whose lungs are still developing and the elderly who may have other serious health problems. DPM levels and resultant potential health effects may be higher in close proximity to heavily traveled roadways with substantial truck traffic or near industrial facilities. According to CARB, DPM exposure may lead to the following adverse health effects: (1) aggravated asthma; (2) chronic bronchitis; (3) increased respiratory and cardiovascular hospitalizations; (4) decreased lung function in children; (5) lung cancer; and (6) premature deaths for people with heart or lung disease.[2,3]

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1 CARB, Proposed Identification of Vinyl Chloride as a Toxic Air Contaminant, Staff Report/Executive Summary, October 1990, www.arb.ca.gov/toxics/id/summary/vinyl.pdf.

2 CARB, Diesel and Health Research, www.arb.ca.gov/research/diesel/diesel-health.htm.

To provide perspective on the contribution that DPM has on the overall statewide average of ambient air toxics potential cancer risk, CARB evaluated risks from specific compounds using data from CARB's ambient monitoring network. (CARB maintains a 21-site air toxics monitoring network which measures outdoor ambient concentration levels of approximately 60 air toxics.) CARB determined that, of the top ten inhalation risk contributors, DPM contributes approximately 71 percent of the total potential cancer risk.[4]

Regulatory Framework

Federal, state, and local laws, regulations, plans and policies have been adopted by various agencies in order to address air quality concerns. Those laws, regulations, plans, and policies that are relevant to the proposed project are discussed below.

Criteria Pollutants

Federal Regulations

At the federal level, the U.S. Environmental Protection Agency (USEPA) is responsible for the implementation of some portions of the Federal Clean Air Act (CAA) (e.g., certain mobile source and other requirements). Other portions of the CAA (e.g., stationary source requirements) are implemented by state and local agencies.

The CAA identifies specific emission reduction goals for areas not meeting the National Ambient Air Quality Standards (national air standards), and requires both a demonstration of reasonable further progress toward attainment and incorporation of additional sanctions for failure to attain or to meet interim milestones. The sections of the CAA of most relevance to the proposed project include Title I (Nonattainment Provisions) and Title II (Mobile Source Provisions).

Title I provisions are implemented for the purpose of attaining national air standards. **Table 3.2-1** shows the national air standards currently in effect for each criteria pollutant and the County's relative attainment status.

Nonattainment designations are categorized into seven levels of severity: (1) basic; (2) marginal; (3) moderate; (4) serious; (5) severe-15; (6) severe-17; and (7) extreme. On June 11, 2007, the USEPA reclassified the Air Basin as a federal "attainment" area for CO and approved the Air Basin's CO maintenance plan. The Air Basin fails to meet national air standards for O_3 and $PM_{2.5}$ and, therefore, is considered a federal "non-

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3 CARB, Fact Sheet: Diesel Particulate Matter Health Risk Assessment Study for the West Oakland Community: Preliminary Summary of Results, March 2008, www.arb.ca.gov/ch/communities/ra/westoakland/documents/factsheet0308.pdf.

4 SCAQMD, Multiple Air Toxics Exposure Study in the South Coast Air Basin (MATES-II), Draft Report, Executive Summary, March 2000, www.aqmd.gov/docs/default-source/air-quality/air-toxic-studies/mates-ii/mates-ii-contents-and-executive-summary.pdf?sfvrsn=4.

attainment" area for these pollutants. In addition, the County fails to meet the national air standard for lead and, therefore, is considered a federal "non-attainment" area for lead.

Title II of the CAA pertains to mobile sources, such as cars, trucks, buses, and planes. Reformulated gasoline and automobile pollution control devices are examples of the mechanisms the USEPA uses to regulate mobile air emission sources. The provisions of Title II have resulted in tailpipe emission standards for vehicles, which have been strengthened in recent years to improve air quality. For example, the standards for NO_X emissions have been lowered substantially and the specification requirements for cleaner burning gasoline are more stringent.

State Regulations

The California Clean Air Act (CCAA), signed into law in 1988, requires all areas of the State to achieve and maintain the California Ambient Air Quality Standards (state air standards) by the earliest practicable date. CARB, a part of the California Environmental Protection Agency (Cal EPA), is responsible for the coordination and administration of both state and federal air pollution control programs within California. In this capacity, CARB conducts research, sets state air standards, compiles emission inventories, develops suggested control measures, and provides oversight of local programs. CARB establishes emissions standards for motor vehicles sold in California, consumer products, and various types of commercial equipment. It also sets fuel specifications to further reduce vehicular emissions. **Table 3.2-1**, National and State Air Standards, includes the state air standards currently in effect for each of the criteria pollutants as well as other pollutants recognized by the State. As shown in **Table 3.2-1**, National and State Air Standards, the state air standards are more stringent than the national air standards.

Regional Regulations

South Coast Air Quality Management District

The South Coast Air Quality Management District (SCAQMD) shares responsibility with CARB for purposes of ensuring that all national and state air standards are achieved and maintained throughout the Air Basin. In order to meet the national and state air standards, SCAQMD has adopted a series of Air Quality Management Plans (AQMPs). The AQMPs provide emissions inventories, ambient measurements, meteorological episodes, and air quality modeling tools. The AQMPs also provide policies and measures to guide responsible agencies in achieving national air standards for healthful air quality in the Air Basin, and incorporate a comprehensive strategy aimed at controlling pollution from all sources, including stationary sources, on-road and off-road mobile sources, and area sources.

The most recent 2016 AQMP provides a comprehensive analysis of emissions, meteorology, atmospheric chemistry and regional growth projections, and the impacts of existing and new control measures. The AQMP seeks to achieve multiple goals in partnership with other entities by promoting reductions in criteria pollutants, greenhouse gases and toxic risk, as well as efficiencies in energy use, transportation and goods

movement. For example, the AQMP includes transportation control measures developed by the Southern California Association of Governments (SCAG) in its 2016–2040 Regional Transportation Plan/Sustainable Communities Strategy (RTP/SCS).

SCAQMD adopts rules and regulations to implement portions of its AQMPs. Several of these rules may apply to construction or operation of the proposed project. For example, SCAQMD Rule 403 requires the implementation of best available fugitive dust control measures during active construction periods capable of generating fugitive dust emissions from on-site earth-moving activities, construction/demolition activities, and construction equipment travel on paved and unpaved roads. Additionally, SCAQMD Rule 1113 regulates the VOC content of various architectural coatings (e.g., interior and exterior paints) used in the Air Basin.

SCAQMD published the *CEQA Air Quality Handbook* to assist lead agencies, as well as consultants, project proponents, and other interested parties, in evaluating potential air quality impacts of projects proposed in the Air Basin. The CEQA Air Quality Handbook provides standards, methodologies, and procedures for conducting air quality analyses in EIRs and was used in the preparation of this analysis. The following supplemental guidance/information provided on SCAQMD's website (www.aqmd.gov/ceqa/hdbk.html) also was referenced in preparing the air quality impact analysis for the proposed project: (1) EMFAC on-road vehicle emission factors; (2) background CO concentrations; (3) localized significance thresholds; (4) potentially feasible mitigation measures and control efficiencies; (5) mobile source toxics analysis; (6) off-road mobile source emission factors; (7) $PM_{2.5}$ significance thresholds and calculation methodology; and (8) updated SCAQMD significance thresholds. SCAQMD also recommends using approved models to calculate emissions from land use projects, such as California Emissions Estimator Model (CalEEMod). These recommendations were followed in the preparation of this analysis.

Southern California Association of Governments

SCAG is the regional planning agency for Los Angeles, Orange, Ventura, Riverside, San Bernardino, and Imperial Counties and addresses regional issues relating to transportation, the economy, community development and the environment. SCAG coordinates with various air quality and transportation stakeholders in southern California to ensure compliance with the federal and state air quality requirements, including the Transportation Conformity Rule and other applicable federal, state, and air district laws and regulations. As the federally-designated Metropolitan Planning Organization (MPO) for the six-county southern California region, SCAG is required by law to ensure that its transportation activities "conform" to, and are supportive of, the goals of regional and state air quality plans to attain the national air standards. In addition, SCAG is a co-producer, with SCAQMD, of the transportation strategy and transportation control measure sections of the AQMP for the Air Basin. With regard to future growth, SCAG has prepared the RTP, which provides population, housing, and employment projections for cities under its jurisdiction. The growth projections in the RTP are based on projections originating under County and City General Plans. The RTP growth

projections are used in the preparation of the air quality forecasts and consistency analysis included in SCAQMD's AQMP.

Toxic Air Contaminants

State Regulations

The California Air Toxics Program was established when the California Legislature adopted Assembly Bill (AB) 1807 to create a two-step process for risk identification and risk management to address potential health effects from exposure to toxic substances in the air.

In the risk identification step, CARB and OEHHA determine if a substance should be formally identified or "listed" as a TAC in California. Since inception of the program, a number of such substances have been listed. In 1993, the California Legislature amended the program to identify the 189 federal hazardous air pollutants as TACs.

In the risk management step, CARB reviews emission sources of an identified TAC to determine whether regulatory action is needed to reduce risk. Based on results of that review, CARB has promulgated a number of airborne toxic control measures, both for mobile and stationary sources. For example, in 2004, CARB adopted an airborne toxic control measure to limit heavy-duty diesel motor vehicle idling in order to reduce public exposure to DPM and other TACs. The measure applies to diesel-fueled commercial vehicles with gross vehicle weight ratings greater than 10,000 pounds that are licensed to operate on highways, regardless of where they are registered. This measure does not allow diesel-fueled commercial vehicles to idle for more than five minutes at any given time.

In addition to limiting exhaust from idling trucks, CARB recently promulgated emission standards for off-road diesel construction equipment such as bulldozers, loaders, backhoes, and forklifts, as well as many other self-propelled off-road diesel vehicles. This regulation aims to reduce emissions by installation of diesel particulate filters and encouraging the replacement of older, dirtier engines with newer emission controlled models. Implementation is staggered based on fleet size, with the largest operators beginning compliance in 2014.

The AB 1807 program is supplemented by the AB 2588 Air Toxics "Hot Spots" program. Under this program, facilities are required to report their air toxics emissions, assess health risks, and notify nearby residents and workers of significant risks if present. The AB 2588 program was amended by Senate Bill (SB) 1731 to require facilities that pose a significant health risk to the community to reduce their risk through implementation of a risk management plan.

Regional Regulations

SCAQMD has adopted two rules to limit cancer and non-cancer health risks from facilities located within its jurisdiction. Rule 1401 (New Source Review of Toxic Air Contaminants) regulates certain new or modified facilities, and Rule 1402 (Control of

Toxic Air Contaminants from Existing Sources) regulates facilities that are already operating. Rule 1402 incorporates requirements of the AB 2588 program, including implementation of risk reduction plans for significant risk facilities.

SCAQMD has also adopted land use planning guidelines in the *Guidance Document for Addressing Air Quality Issues in General Plans and Local Planning*, which considers impacts to sensitive receptors from facilities that emit TAC emissions. SCAQMD's siting distance recommendations are the same as those provided by CARB (e.g., a 500-foot siting distance for sensitive land uses proposed in proximity of freeways and high-traffic roads, and the same siting criteria for distribution centers and dry cleaning facilities). SCAQMD's document also introduces land use-related policies that rely on design and distance parameters to minimize emissions and lower potential health risk. SCAQMD's guidelines are voluntary initiatives recommended for consideration by local planning agencies.

Existing Conditions

Regional Air Quality

The southern California region lies in the semi-permanent high-pressure zone of the eastern Pacific. As a result, the climate is mild, tempered by cool sea breezes. The usually mild climatological pattern is interrupted infrequently by periods of extremely hot weather, winter storms, or Santa Ana winds. The extent and severity of the air pollution problem in the Air Basin is a function of the area's natural physical characteristics (weather and topography), as well as man-made influences (development patterns and lifestyle). Factors such as wind, sunlight, temperature, humidity, rainfall, and topography all affect the accumulation and dispersion of pollutants throughout the Air Basin, making it an area of high pollution potential.

Pollutant concentrations in the Air Basin vary with location, season, and time of day. The greatest air pollution impacts throughout the Air Basin occur from June through September. This condition is generally attributed to the large amount of pollutant emissions, light winds, and shallow vertical atmospheric mixing, which frequently reduce pollutant dispersion, thus causing elevated air pollution levels. Also, ozone concentrations tend to be lower along the coast, higher in the near inland valleys, and lower in the far inland areas of the Air Basin and adjacent desert. Over the past 30 years, substantial progress has been made in reducing air pollution levels in southern California. However, the Air Basin still fails to meet national air standards for ozone and $PM_{2.5}$. In addition, Los Angeles County still fails to meet the national air standard for lead.

In May 2015, SCAQMD released a Multiple Air Toxics Exposure Study (MATES-IV) report, which concludes that cancer risk in the Air Basin has decreased more than 50 percent between the study periods for MATES-III and MATES-IV.[5] The report further

[5] SCAQMD, MATES IV, Multiple Air Toxics Exposure Study, 2015, www.aqmd.gov/docs/default-source/air-quality/air-toxic-studies/mates-iv/mates-iv-final-draft-report-4-1-15.pdf?sfvrsn=7.

concludes that, while DPM exposure has decreased by approximately 70 percent, DPM still dominates the overall cancer risk from air toxics, and the highest risks occur near ports and transportation corridors.

Local Air Quality

Air pollutant emissions in the local vicinity are generated by stationary and area-wide sources, such as commercial and industrial activity, space and water heating, landscape maintenance, consumer products, and mobile sources primarily consisting of automobile traffic. Motor vehicles are the primary source of pollutants in the local vicinity.

Existing Pollutant Levels at Nearby Monitoring Stations

SCAQMD maintains a network of air quality monitoring stations located throughout the Air Basin and has divided the Air Basin into 27 source receptor areas in which 31 monitoring stations operate. The campus is located within the South Los Angeles County Coastal District 4, and the closest air quality monitoring stations (CARB Numbers 70033 and 70072) in this district are located at 2425 Webster Street, Long Beach, CA 90810, and 3648 North Long Beach Boulevard, Long Beach, CA 90807. **Table 3.2-2** identifies the national and state air standards for relevant air pollutants along with the ambient pollutant concentrations that have been measured during the period of 2013 to 2016.

Table 3.2-2
Federal and State Ozone and Particulate Matter Exceedances

Pollutant	Year			
	2013	2014	2015	2016
Ozone (O_3)				
Maximum 1-hour Concentration (ppm)	0.090	0.087	0.087	0.079
Days exceeding CAAQS (0.09 ppm)	0	0	0	0
Maximum 8-hour Concentration (ppm)	0.069	0.072	0.066	0.059
Days exceeding NAAQS (0.075 ppm)	0	1	0	0
Days exceeding CAAQS (0.07 ppm)	0	1	0	0
Respirable Particulate Matter (PM_{10})				
Maximum 24-hour Concentration ($\mu g/m^3$)	54	59	80	75
Days exceeding NAAQS (150 $\mu g/m^3$)	0	0	0	0
Days exceeding CAAQS (50 $\mu g/m^3$)	1	2	6	8
Annual Arithmetic Mean (µg/m3)	27.3	26.6	31.5	31.9
Does measured AAM exceed CAAQS (20 $\mu g/m^3$)?	Yes	Yes	Yes	Yes

Table 3.2-2
Federal and State Ozone and Particulate Matter Exceedances

Pollutant	Year			
	2013	2014	2015	2016
Fine Particulate Matter ($PM_{2.5}$)				
Maximum 24-hour Concentration (µg/m^3)	42.9	52.2	48.3	28.93
98th Percentile 24-hour Concentration (µg/m^3)	24.6	27.2	31.2	22.05
Days exceeding NAAQS (35 µg/m^3)	1	2	4	0
Annual Arithmetic Mean (µg/m^3)	10.97	10.72	10.26	9.62
Does measured AAM exceed NAAQS (12 µg/m^3)?	No	No	No	No
Does measured AAM exceed CAAQS (12 µg/m^3)?	No	No	No	No
Carbon Monoxide (CO)				
Maximum 1-hour Concentration (ppm)	-	4.0	3.3	3.3
Days exceeding NAAQS (35.0 ppm)	-	-	-	-
Days exceeding CAAQS (20.0 ppm)	-	-	-	-
Maximum 8-hour Concentration (ppm)	2.6	2.6	2.2	2.2
Days exceeding NAAQS and CAAQS (9 ppm)	-	-	-	-
Nitrogen Dioxide (NO_2)				
Maximum 1-hour CAAQS Concentration (ppm)	81.3	135.9	101.8	75.6
Days exceeding CAAQS (0.25 ppm)	-	-	-	-
Maximum 1-hour NAAQS Concentration (98th Percentile) (ppm)	71.3	84.8	64.4	66.3
Days exceeding NAAQS (0.10 ppm)	-	-	-	-
Annual Arithmetic Mean (ppm)	21.5	20.7	19.8	18.5
Does measured AAM exceed NAAQS (0.053 ppm)?	No	No	No	No
Does measured AAM exceed CAAQS (0.03 ppm)?	No	No	No	No
Sulfur Dioxide (SO_2)				
Maximum 1-hour Concentration (ppm)	15.1	14.7	37.5	17.8
Days exceeding CAAQS (0.25 ppm)	-	-	-	-
Maximum 24-hour concentration (ppm)	-	-	-	-
Days exceeding CAAQS (0.04 ppm)	-	-	-	-
Days exceeding NAAQS (0.14 ppm)	-	-	-	-
Annual Arithmetic Mean (ppm)	-	-	-	-
Does measured AAM exceed NAAQS (0.030 ppm)?	-	-	-	-

Table 3.2-2
Federal and State Ozone and Particulate Matter Exceedances

Pollutant	Year			
	2013	2014	2015	2016
Lead (Pb)[a]				
Maximum 30-day Average Concentration (µg/m^3)	0.012	0.012	0.010	0.008
Does measured concentration exceed NAAQS (1.5 µg/m^3)	No	No	No	No
Maximum Calendar Quarter Concentration (µg/m^3)	0.009	0.010	0.010	0.010
Does measured concentration exceed CAAQS (1.5 µg/m^3)	No	No	No	No
Sulfate				
Maximum 24-hour Concentration (µg/m^3)	4.8	4.5	6.3	6.3
Does measured concentration exceed CAAQS (25 µg/m^3)	No	No	No	No

ppm = parts per million by volume
ppb = parts per billion by volume
µg/m^3 = micrograms per cubic meter
NAAQS = National Ambient Air Quality Standard
CAAQS = California Ambient Air Quality Standard
AAM = annual arithmetic mean
— = not available

[a] According to SCAQMD's 2012 Lead State Implementation Plan for Los Angeles County, the County will meet the NAAQS for lead by the year 2016. Lead is not measured at SCAQMD monitoring stations near the project site; therefore, results from the next closest station (No. 70077) are reported above.

Source: South Coast Air Quality Management District, Historical Data by Year, www.aqmd.gov/home/library/air-quality-data-studies/historical-data-by-year.

Surrounding Uses

As shown in **Figure 2.04, ~~3,~~** Aerial Photograph of CSU Dominguez Hills Campus, and **Figure 2.0-54**, Surrounding Land Use Diagram, of Section 2.0, Project Description, of this EIR, the CSUDH campus is surrounded by existing, predominantly single-family residential development to the north and south; residential and commercial development to the west; and, light industrial park facilities to the east. For purposes of this air quality analysis, the residential development in the vicinity of the CSUDH campus contains sensitive receptors (i.e., residents).

Project Site

The proposed project is located on the existing CSUDH campus. As the location of an existing academic institution, the project site presently contains a mix of university-oriented land uses, such as academic buildings, residence halls, recreational amenities

and athletic facilities (including the StubHub Center), and other campus support operations.

Environmental Impacts

Methodology

This analysis focuses on the potential change in the air quality environment due to implementation of the proposed project, and specifically the criteria air pollutant and TAC emissions resulting from its construction and operational activities. Specific analysis methodologies are discussed below.

Construction Emissions Methodology

The project's construction emissions were estimated using the CalEEMod, Version 2016.3.2, which is recommended by SCAQMD for use in CEQA analysis. CalEEMod calculates the short-term construction emissions from sources such as off-road equipment, on-road equipment, fugitive dust associated with grading, demolition, truck loading, and roads, and volatile emissions of reactive organic gases (ROG) from architectural coating and paving. Because the proposed project includes both the demolition of existing buildings and construction of new buildings, construction emissions from all phases were accounted for in the calculations, including demolition, site preparation, grading, building, coating and paving.

As project-specific modeling inputs, the square footage of the proposed project's new buildings and demolition area was estimated. The total acreage subject to construction activities also was estimated based on the proposed site plan. Through CalEEMod, the SCAQMD construction survey was used to estimate default off-road equipment lists (type and number) based on the total project acreage. The modeling software then calculated the exhaust emissions from the equipment based on CARB's OFFROAD2011 methodology, which calculates emissions using emission factors by season, average horse power of equipment by equipment type and engine tier, load factor, and activity duration. As such, CalEEMod inputs reflect the types and quantities of construction equipment that would be used to complete the proposed construction activities. Emissions from the construction activities were calculated for each of the construction phases, with the construction estimated to commence in 2020 and conclude in 2034. To identify the maximum construction emissions of the project, the emission results from CalEEMod were summarized and reported by year for analysis.

Operational Emissions Methodology

The project's operational emissions also were estimated using CalEEMod, Version 2016.3.2. Analysis of the proposed project's operational impacts on regional air quality considers three source types: (1) mobile; (2) area; and (3) energy. Mobile source emissions are generated by motor vehicle trips to and from the project site. Area source emissions are generated by, among other things, landscape and maintenance equipment, natural gas fireplaces, and the use of consumer products. Energy source emissions are

generated as a result of activities in buildings for which natural gas is used (e.g., natural gas for heat or cooking).

Because this project is a long-term campus master plan, details related to specific buildings, such as floor plans, appliances, landscaping, maintenance schedule and equipment are only defined at a conceptual level. To provide a reasonable estimation of the project's operational emissions, the following assumptions were used in CalEEMod:

- Overall project size was calculated by totaling the approximate square footage of the new buildings. This provides the basis for area and energy emission calculations, using CalEEMod defaults.
    - Conservatively, the demolition and redevelopment of existing buildings with new buildings was not accounted for in the analysis. In other words, all square footage is assumed to be new, additional square footage associated with the proposed project, even though some existing, less efficient square footage will be replaced with new, more efficient square footage.
    - Conservatively, the analysis assumes compliance with existing building energy efficiency standards (e.g., California Code of Regulations (CCR), Title 24, Parts 6 and 11), even though it is reasonably anticipated that those standards will be improved and require further efficiencies over the course of the proposed project's build-out timeframe.
- No woodstoves and no fireplaces.
- CalEEMod default emission factors for consumer products.
- CalEEMod default emission factors for area architectural coatings, which reflects compliance with SCAQMD Rule 1113.
- CalEEMod default emission factors for landscape equipment.
- Vehicular trips
    - Student enrollment, high school, and day care center: CalEEMod default.
    - Student housing: 1.42 daily trips per bed per day, based on specialized student housing daily trip rates (CSU Los Angeles Student Housing EIR, Traffic Study, December 2016).
    - University Village: CalEEMod default with 10 percent reduction accounting for internal trip capture. This is more conservative than Institute of Transportation Engineers' (ITE) recommended internal capture rate for mixed-use developments.
    - Trip lengths were based on CalEEMod default for all trip purposes, which provides conservative assumption based on county average.

Toxic Air Contaminants Impacts

Potential TAC impacts were evaluated by conducting a qualitative screening-level analysis of the project to ascertain whether any new or modified sources of considerable

TAC emissions are proposed. For purposes of construction-related activities, an assessment of potential TAC emissions was prepared due to the use of heavy-duty construction equipment and the overall length of proposed construction activities. For purposes of operational-related activities, the assessment considered the nature of the land uses proposed by the project, and whether such uses would be considerable generators of TAC emissions.

Odor Impacts

Potential odor impacts were evaluated by conducting a qualitative screening-level analysis of the project to ascertain whether any new or modified sources of considerable odor are proposed.

Project Design Elements

As discussed in **Section 2.0**, Project Description, of this EIR, the proposed project encompasses three major areas of campus-related development: (1) the Core Campus with academic facilities; (2) the planned new University Village; and (3) the StubHub Center stadium seating increase for 3,000 spectators. The proposed project retains the currently authorized campus enrollment of 20,000 full-time-equivalent students (FTES), while providing a framework for development of the campus and its facilities to accommodate campus enrollment growth from its current enrollment of approximately 11,000 FTES to 20,000 FTES over a planning horizon extending to 2035.

In conjunction with the proposed project, CSUDH also has prepared its Guidelines for the 2018 Campus Master Plan (Guidelines) to support and advance the University's vision of developing a vital campus that supports the facilities, buildings, improvements, and services needed for a top-performing model urban university to serve up to 20,000 FTES. The Guidelines explain the vision, goals, and planning process for the proposed project, and include landscape design, sustainability, and Core Campus design guidelines to be used by CSUDH to guide development of the physical campus and its facilities over the next 15-20 years.[6]

As also discussed in **Section 2.0**, Project Description, of this EIR, the proposed project incorporates sustainability objectives set forth in the Guidelines for all future campus development. The Guidelines address energy efficiency, water efficiency, stormwater management, and transportation that reduces vehicular trips, waste management, and the overall enhanced resiliency of the campus' facilities, operating systems, and infrastructure. The major goals and strategies are described in detail in the Guidelines, and include:

- Infrastructure that moves the campus toward Zero-Net Energy;
- Annual energy-use-per-square-foot performance targets for common campus

[6] The Guidelines are a campus planning tool; they are not part of the proposed project's discretionary approvals to be considered by the CSU Board of Trustees.

building types;

- Reduced use of water sources that have energy-intensive content related to treatment and conveyance;
- Mixed-use and transportation-oriented development which reduces single-occupant vehicle trips and creates a more vibrant, walkable community;
- Creating policies and education to move the campus towards net zero waste; and
- Creating a healthy and equitable campus environment for all its occupants.

It also is noted that the proposed project would benefit from CSU's 2014 Sustainability Policy and existing initiatives implemented by CSUDH's Office of Sustainability, which fall into eight major categories: (1) energy use; (2) water management; (3) waste management; (4) landscaping; (5) transportation; (6) procurement; (7) academics; and (8) engagement.[7]

While the goals and strategies of the Guidelines and CSU's 2014 Sustainability Policy, and efforts of CSUDH's Office of Sustainability are not quantitatively accounted for in the emissions modeling results presented below, their implementation would beneficially influence (i.e., reduce) the proposed project's generation of criteria air pollutants and TACs.

Regulatory Compliance Measures

The proposed project would comply with all applicable regulatory standards to the extent required by law. Implementation of the following regulatory compliance measures has been accounted for in the emissions modeling results presented below.

Construction

- In accordance with SCAQMD Rule 403, the proposed project's construction activities shall incorporate fugitive dust control measures, such as watering active construction areas and limiting vehicle speeds.
- In accordance with CCR, Title 13, Section 2485, the idling of all diesel-fueled commercial vehicles (weighing over 10,000 pounds) during construction shall be limited to five minutes at any location.
- In accordance with CCR, Title 17, Section 93115, operation of any stationary, diesel-fueled, compression-ignition engines shall meet specified fuel and fuel additive requirements and emission standards.
- In accordance with SCAQMD Rule 1113, the proposed project shall use architectural coatings that meet specified VOC content standards.

[7] For more information regarding CSUDH's Office of Sustainability and its campus initiatives, please see https://www.csudh.edu/sustainability/campus-initiatives/.

Operation

- In accordance with SCAQMD Rule 1138, the proposed project shall install odor-reducing equipment where applicable.
- In accordance with CCR, Title 24, Part 6 and Part 11, the proposed project shall comply with the Building Energy Efficiency Standards for Residential and Nonresidential Buildings and the California Green Building Standards Code (CALGreen), as amended from time to time (the currently applicable standards were adopted in 2016 and became effective in 2017).

Significance Thresholds

Based on Appendix G of the CEQA Guidelines and other relevant criteria, the proposed project would have a potentially significant impact related to air quality based on the following criteria:

Threshold 1: Would the project conflict with or obstruct implementation of the applicable air quality plan of the SCAQMD?

Threshold 2: Would the project result in a cumulatively considerable net increase of any criteria pollutant for which the project region is non-attainment under an applicable federal or state ambient air quality standard?

Threshold 3: Would the project expose sensitive receptors to substantial pollutant concentrations?

Threshold 4: Would the project result in other emissions (such as those leading to odors) adversely affecting a substantial number of people?

SCAQMD recommends use of the following significance thresholds to assess the regional and localized impacts of project-related air pollutant emissions:

- Regional construction emissions are significant if they would exceed any of the following levels: 100 pounds per day for NO_X; 75 pounds per day for VOC; 150 pounds per day for PM_{10} or SO_X; 55 pounds per day $PM_{2.5}$; and 550 pounds per day for CO. (For purposes of this analysis, these pounds per day levels are considered when assessing project impacts relative to Threshold 2, even where the level does not pertain to a non-attainment pollutant for this Air Basin.)
- Regional operational emissions are significant if they would exceed any of the following levels: 55 pounds a day for NO_X, VOC, or $PM_{2.5}$; 150 pounds per day for PM_{10} or SO_X; and 550 pounds per day for CO. (For purposes of this analysis, these pounds per day levels are considered when assessing project impacts relative to Threshold 2, even where the level does not pertain to a non-attainment pollutant for this Air Basin.)
- Impacts are significant if either of the following conditions would occur at an intersection or roadway within one-quarter mile of a sensitive receptor:

  - The project would cause or contribute to an exceedance of the state 1-hour or 8-hour CO standards of 20 or 9.0 ppm, respectively; or
  - The incremental increase due to the project would be equal to or greater than 1.0 ppm for the state 1-hour CO standard, or 0.45 ppm for the 8-hour CO standard.

- Impacts are significant if the project would create an odor nuisance pursuant to SCAQMD Rule 402 (i.e., objectionable odor at the nearest sensitive receptor).
- Impacts are significant if the project emits carcinogenic or TACs that exceed the maximum incremental cancer risk of 10 in one million or an acute or chronic hazard index of 1.0.[8] For projects with a maximum incremental cancer risk between 1 in one million and 10 in one million, a project results in a significant impact if the cancer burden exceeds 0.5 excess cancer cases.

Project Impacts

Criteria Air Pollutants

Short-Term Construction

The campus development will occur incrementally over the project's 2035 planning horizon. For purposes of this analysis, phased construction activities were estimated to commence in 2020 and conclude in 2034. Construction emissions were calculated individually by year through the construction period between 2020 and 2034.

As discussed above, construction emissions, including demolition and grading, were calculated using CalEEMod, Version 2016.3.2. The model uses current CARB emission factors for light-duty automobile and truck emissions and USEPA emission factors for medium- and heavy-duty equipment emissions and fugitive dust emissions. To account for "worst-case" peak day construction emissions, the highest number of equipment pieces on any given day was used in the emissions modeling and all equipment pieces were assumed to operate for a full eight-hour day even though, in practice, not all equipment will be in use simultaneously for eight hours during any single construction day. The worksheets and calculations are included in **Appendix B.2**.

The estimated peak day construction emissions by year are summarized in **Table 3.2-3**. As shown, peak day construction emissions would be below the SCAQMD thresholds for all criteria pollutants, with the exception of VOC emissions in years 2024, 2027 and 2034. The highest emissions of VOC corresponds with construction phases related to the application of architectural coatings, with additional contributions from the operation of other construction equipment. The potential peak day exceedance of SCAQMD's VOCs threshold is a significant impact under Threshold 2.

[8] Hazard index is the ratio of a toxic air contaminant's concentration divided by its reference concentration, or safe exposure level. If the hazard index exceeds one, people are exposed to levels of TACs that may pose non-cancer health risks.

Table 3.2-3
Estimated Unmitigated, Peak Day Criteria Air Pollutant Emissions from Construction by Year (pounds per day)

Daily Maximum	Volatile Organic Compounds (VOCs)	Oxides of Nitrogen (NO_x)	Carbon Monoxide (CO)	Sulfur Dioxide (SO_2)	Respirable Particulate Matter (PM_{10})	Fine Particulate Matter ($PM_{2.5}$)
2020	8	50	65	<1	22	12
2021	7	44	61	<1	14	5
2022	7	41	57	<1	14	4
2023	149	72	105	<1	35	16
2024	332	39	57	<1	15	5
2026	4	28	39	<1	21	11
2027	114	22	37	<1	10	3
2031	3	14	23	<1	19	10
2032	4	30	40	<1	14	4
2033	4	29	39	<1	14	4
2034	298	57	77	<1	35	15
SCAQMD Threshold	75	100	550	150	150	55
Exceed Threshold?	Yes	No	No	No	No	No

Long-Term Operational

Air pollution emissions associated with project operations would result from energy demands (specifically, natural gas consumption), the use of area sources (such as landscaping equipment and architectural coatings), and the operation of on-road vehicles.

Of note, it is highly unlikely that all project-related vehicular trips, and their emissions, will be entirely additive to the region. Since the proposed project provides for housing next to existing ~~business park~~campus business park facilities and in proximity to core academic facilities on the CSUDH campus, and because this housing will be made available to campus faculty, staff, students, and the rental housing market, project-related development will most likely enable more people who work at CSUDH and future employees of the ~~business park~~campus business park to live on campus, in turn reducing mobile emissions from commuting from more distant locations. Even though it is likely that some CSUDH students, faculty, and staff will select to live in the ~~market rate~~campus apartment housings, there are no plans to have a formal policy or program to require that to happen. Therefore, in the absence of such a program, a conservative "worst-case" condition approach was used to analyze the long-term air quality impacts of the proposed project, whereby all of the vehicular trips generated by the project are treated as new additional trips to the region. This methodology is consistent with the approach outlined

in the Transportation Impact Study (November 2017) and the traffic analysis conducted for this project. (The Transportation Impact Study prepared for the 2018 Campus Master Plan is included in **Appendix F.1**.)

Based on these conservative assumptions, the Interim Year 2025 conditions' operational emissions were calculated and are summarized in **Table 3.2-4**. The general development of the Core Campus includes academic, administrative, student support, athletic, and campus support facilities. Based on the emission calculations for the Interim Year 2025 conditions, the Core Campus development would contribute between 13 percent and 17 percent of the total emissions across the six criteria pollutants. The University Village ~~mixed-use~~ development with apartments, supporting retail, and ~~business park~~campus business park facilities would contribute between 74 percent and 84 percent of the total emissions across the six criteria pollutants. The reconfiguration of the StubHub Center to include additional 3,000 spectator seats at the existing stadium would contribute between 2 percent and 11 percent of the total emissions across the six criteria pollutants. As shown, under the Interim Year 2025 conditions, the emissions would exceed the SCAQMD daily threshold amounts for VOCs, NO_x, and PM_{10}, primarily due to emissions from vehicular traffic, resulting in a significant impact under Threshold 2.

Table 3.2-4
Estimated, Unmitigated Project Daily Operational Emissions,
Interim Year 2025 (pounds per day)

	Volatile Organic Compounds (VOCs)	Oxides of Nitrogen (NO_X)	Carbon Monoxide (CO)	Sulfur Dioxide (SO_2)	Respirable Particulate Matter (PM_{10})	Fine Particulate Matter ($PM_{2.5}$)
Core Campus						
Area	6	<1	<1	<1	<1	<1
Energy	<1	2	2	<1	<1	<1
Mobile	5	23	64	<1	24	7
Campus Core Subtotal	11	25	66	<1	24	7
University Village						
Area	44	1	88	<1	<1	<1
Energy	1	5	3	<1	<1	<1
Mobile	24	108	307	1	116	32
University Village Subtotal	68	113	398	1	117	32
StubHub Center With 30,000 Seats						
Area	<1	<1	<1	<1	<1	<1
Energy	<1	<1	<1	<1	<1	<1
Mobile	2	9	29	<1	18	5

Table 3.2-4
Estimated, Unmitigated Project Daily Operational Emissions,
Interim Year 2025 (pounds per day)

	Volatile Organic Compounds (VOCs)	Oxides of Nitrogen (NO_X)	Carbon Monoxide (CO)	Sulfur Dioxide (SO_2)	Respirable Particulate Matter (PM_{10})	Fine Particulate Matter ($PM_{2.5}$)
StubHub Center Subtotal	2	9	29	<1	18	5
Master Plan Interim Year 2025						
Master Plan Total	81	147	492	2	159	44
SCAQMD Threshold	55	55	550	150	150	55
Exceeds Threshold?	Yes	Yes	No	No	Yes	No

Note: Emissions are rounded to the nearest whole number.

The project's Buildout Year 2035 operational emissions associated with the Campus Master Plan are summarized in **Table 3.2-5**. As shown, the Core Campus development would contribute between 32 percent and 39 percent of the total emissions across the six criteria pollutants. The University Village would contribute between 57 percent and 64 percent of the total emissions across the six criteria pollutants. And, the reconfiguration of the StubHub Center stadium would contribute between 1 percent and 6 percent of the total emissions across the six criteria pollutants. These pollutant emissions would exceed the SCAQMD daily threshold amounts for all six criteria pollutants, with vehicular traffic being the main emissions contributor for all criteria pollutants, followed by area emissions for VOCs and CO. Emissions of these criteria pollutants from the operation of the project would result in a significant long-term air quality impact under Threshold 2.

Table 3.2-5
Estimated, Unmitigated Project Daily Operational Emissions,
Buildout Year 2035 (pounds per day)

	Volatile Organic Compounds (VOCs)	Oxides of Nitrogen (NO_X)	Carbon Monoxide (CO)	Sulfur Dioxide (SO_2)	Respirable Particulate Matter (PM_{10})	Fine Particulate Matter ($PM_{2.5}$)
Core Campus						
Area	39	<1	40	0	<1	<1
Energy	1	10	8	0	1	1
Mobile	14	84	184	1	103	28
Campus Core Subtotal	54	94	231	1	104	29
University Village						
Area	70	2	177	0	1	1
Energy	1	7	4	0	1	1
Mobile	22	128	287	2	163	44
University Village Subtotal	93	137	468	2	165	46
StubHub Center With 30,000 Seats						
Area	<1	<1	<1	0	<1	<1
Energy	<1	<1	<1	0	<1	<1
Mobile	2	9	29	0	18	5
StubHub Center Subtotal	2	9	29	0	18	5
Master Plan Buildout Year 2035						
Master Plan Total	149	240	727	3	287	79
SCAQMD Threshold	55	55	550	150	150	55
Exceeds Threshold?	Yes	Yes	Yes	No	Yes	Yes

Note: Emissions are rounded to the nearest whole number.

As discussed above, the proposed project's construction-related VOC emissions and operations-related VOC, NO_X, CO, PM_{10} and $PM_{2.5}$ emissions are above SCAQMD's significance thresholds. The following discussion describes the mechanism by which project-related emissions could increase the concentrations of criteria air pollutants in the atmosphere and the corresponding potential health effects.

To begin, the ambient concentration of criteria pollutants is a result of complex atmospheric chemistry and emissions of pollutant precursors[9] and direct emissions. Several variables determine whether pollutant emissions disperse in the atmosphere in a manner in which concentrations of criteria pollutants become elevated and result in health effects. For example, the concentration and formation of criteria pollutants is influenced by meteorology, the presence of sunlight and other pollutants in the air, chemical reactions, and transport. The dispersion is based on the meteorological conditions of the source (the project), local terrain (elevation profile), and the height and size of the source. The surrounding land use, wind direction and wind speed will influence the location where the project emissions disperse.

The resulting health effects are further based on a complex relationship of multiple variables and factors. The calculated health effects are dependent upon the concentrations of pollutants to which the receptors are exposed, the number and type of exposure pathways for a receptor, and the intake parameters for a receptor, which vary based upon age and sensitivity (i.e., presence of pre-existing conditions). Health effects would be more likely for individuals with greater susceptibility to exposures, and also dependent on the location of receptors relative to a project site.

An analysis of the potential health effects of the project's criteria pollutant emissions was prepared by Ramboll US Corporation. (See EIR **Appendix B.4**, which contains detailed information regarding the methodology, input parameters, limitations and uncertainties associated with this analysis.) The analysis focuses on health effects attributable to ozone and particulate matter, as those are the criteria pollutants considered by the USEPA in its Benefits Mapping and Analysis Program (BenMAP), the analytical model it relies on and publicly distributes for use in estimating the health effects of air pollution. A photochemical grid model (CAMx) was used to estimate the incremental increase in ambient air quality concentrations as a result of project-related emissions.

Based on that analysis, $PM_{2.5}$-related health effects attributed to the proposed project include asthma-related emergency room visits (4.38 incidences per year), asthma-related hospital admissions (0.38 incidences per year), cardiovascular-related hospital admissions (excepting myocardial infarctions) (1.05 incidences per year), respiratory-related hospital admissions (2.44 incidences per year), mortality (10.31 incidences per year), and nonfatal acute myocardial infarctions (less than 0.53 incidences per year). Ozone-related health effects attributed to the project include respiratory-related hospital admissions (0.67 incidences per year), mortality (0.28 incidences per year), and asthma-related emergency room visits (lower than 3.38 incidences per year). For all these health endpoints, the number of estimated incidences is less than 0.0058% of the background health incidence. As such, when taken in context, the small increase in incidences and the very small percent of the number of background incidences indicate that these health effects are negligible in a developed urban environment.

[9] NO_X and VOC are precursors to ozone and, and NO_X, VOC, and SO_x are precursors to secondarily formed $PM_{2.5}$. Chemical and physical processes transform some of these precursors to the criteria pollutant concentrations in the atmosphere. A specific mass of precursor emissions does not equate to an equivalent concentration of the resultant ozone or secondary particulate matter in that area.

As explained in **Appendix B.4**, the project-related health effects have been conservatively estimated and the actual effects may be zero. ~~Relatedly~~Further, there is a degree of uncertainty inherent in the results of the analysis that is attributable to several variables. For example, health effects were conservatively estimated using maximum [not average] daily emissions, and there are limitations associated with the epidemiological studies on which the estimates of health effects are based (e.g., the inability to control for other factors that may contribute to an association between criteria pollutants and mortality, such as smoking). Further, there is a degree of uncertainty in these results as all simulations of physical processes, whether ambient air concentrations or health effects from air pollution, have a level of uncertainty associated with them, due to simplifying assumptions. Nonetheless, regulatory agencies, including the USEPA, have judged that, even so, the results provide sufficient information to the public to allow them to understand the health effects of increases or decreases in air pollution.

Carbon Monoxide Hotspots

A CO "hotspots" analysis was performed to evaluate the proposed project's potential impacts to ambient CO levels due to changes in traffic. The analysis was performed based on the guidance provided by Caltrans' *Transportation Project-Level Carbon Monoxide Protocol* (Caltrans 1997) and the USEPA's *Guideline for Modeling Carbon Monoxide from Roadway Intersections* (USEPA 1992). Based on Caltrans' Protocol, the analysis was performed with the CALINE4 dispersion model as well as the latest version of EMFAC mobile source emission model.

An intersection screening analysis was performed, and 37 intersections were evaluated based on changes in level of service (LOS) and overall intersection volumes. Of the 37 intersections screened, 20 showed an LOS of E or F in 2035. Those 20 intersections were then ranked by volume, and the two intersections with the highest volume were identified. This process was repeated with the 2025 intersection data, and the same two intersections were identified. Based on the screening analysis, two locations were selected for a detailed CO modeling analysis: Avalon Boulevard and Victoria Street, and West Artesia and Vermont Avenue.

The CALINE4 model was run to determine the maximum predicted one-hour CO concentration at each receptor. The results are summarized in **Table 3.2-6**. The results include a background concentration of 6 ppm. The eight-hour concentrations were calculated by applying a persistence factor of 0.7 to the one-hour model result, and adding a background concentration of 3.9 ppm. The background values represent the highest one-hour and eight-hour CO concentration measured within the past three years at nearby ambient air monitor, as determined from SCAQMD's annual Air Quality Data Tables (SCAQMD 2018). Detailed analysis is included in **Appendix B.3**.

All predicted concentrations are below the national air standards for CO and SCAQMD's significance thresholds. CO concentrations at the Avalon/Victoria intersection are estimated to increase by a maximum of 0.1 ppm due to the project. CO concentrations at the Vermont/Artesia intersection are not estimated to increase as a result of the project.

Based on these model results, project impacts related to CO hotspots would be less than significant under Threshold 3.

Table 3.2-6
Maximum Modeled CO Concentrations
(parts per million)

Location	Year – Average Period	No Project		Plus Project	
		A.M.	P.M.	A.M.	P.M.
Avalon and Victoria	2025 – 1 hour	6.3	6.3	6.3	6.4
	2035 – 1 hour	6.2	6.3	6.3	6.3
	2025 – 8 hour	4.1	4.1	4.1	4.2
	2035 – 8 hour	4.0	4.1	4.1	4.1
Vermont and Artesia	2025 – 1 hour	6.4	6.4	6.4	6.4
	2035 – 1 hour	6.3	6.3	6.3	6.3
	2025 – 8 hour	4.2	4.2	4.2	4.2
	2035 – 8 hour	4.1	4.1	4.1	4.1

Odors

The project's construction activities may produce perceptible diesel odors, which are typical near construction sites. Specifically, large diesel-powered vehicles used to construct the development proposed by the project may generate nuisance diesel odors detected by nearby receptors. However, in accordance with CCR, Title 13, Section 2485, the idling of all diesel-fueled commercial vehicles (weighing over 10,000 pounds) during construction shall be limited to five minutes at any location. With regards to the operation of any stationary, diesel-fueled, compression-ignition engines, CCR, Title 17, Section 93115 specifies fuel and fuel additive requirements and emission standards. Compliance with these regulatory requirements would ensure that any potential nuisance associated with diesel odors during construction is less than significant under Threshold 4.

Other potential construction-related odor sources include the application of architectural coatings and solvents. However, as discussed above, SCAQMD Rule 1113 limits the amount of VOC content from architectural coatings and solvents. Compliance with this regulatory requirement would ensure that any potential nuisance associated with architectural coating applications during construction is less than significant for purposes of Threshold 4.

As to the project's operational sources of odor, the development proposed by the 2018 Campus Master Plan includes non-industrial land uses, such as educational facilities, student housing, apartments, retail, ~~business park~~campus business park facilities, and additional spectator seating at the existing StubHub Center stadium. According to

SCAQMD, land uses associated with odor complaints typically include agricultural uses, wastewater treatment plants, food processing plants, chemical plants, composting, refineries, landfills, dairies, and fiberglass molding. The proposed project does not include any operational uses identified by SCAQMD as being associated with odors; thus, the proposed project's operations would result in less-than-significant impacts to odor under Threshold 4.

Air Toxics

As previously discussed, CARB has identified DPM as a TAC. In response to its identification as a TAC, CARB also has adopted airborne toxic control measures to reduce the emission of DPM from off-road, diesel-fueled construction equipment. It also is noted that CARB's efforts to reduce $PM_{2.5}$ and its precursors reduce particulate emissions that are TACs, such as DPM. Many VOCs, such as benzene, are also considered TACs, and VOC controls have the added benefit of reducing TAC emissions as well.

Based on the project's anticipated construction activities, which would not exceed the SCAQMD's particulate matter-based thresholds, no significant health risk impacts to sensitive receptors located in the vicinity of the CSUDH campus would occur under Threshold 3. Specifically, the proposed project would be developed over two general development phases. Construction for each development phase would not be continuous and is anticipated to be spread out incrementally over a 15-year period, which would limit the exposure to sensitive receptors. It also is anticipated that the construction duration of each development phase would last approximately 36 months. DPM emissions are greatest from large, high-horsepower diesel equipment used in the demolition, site preparation, and grading phases. These phases account for an average of 17 percent of the project's construction schedule, lasting between two to nine months. For these reasons, it is anticipated that the impacts from TAC emissions from construction activities would not be significant.

As to operational sources of TACs, typical sources of acutely and chronically hazardous TACs include industrial manufacturing processes (e.g., chrome plating, electrical manufacturing, petroleum refinery). The proposed project would not include these types of potential industrial manufacturing process sources. And, although the proposed project would result in some TAC emissions, primarily from mobile source emissions, the project would not include any substantial TAC sources, as identified by CARB and SCAQMD. Therefore, for purposes of Threshold 3, the proposed project would result in a less-than-significant impact with respect to its operational TAC emissions.

As such, project-related TAC impacts during construction and operation would not be significant.

Consistency with Regional Air Quality Plan

The purpose of this discussion is to determine if the proposed project is consistent with SCAQMD's 2016 AQMP. A project is considered to not conflict with or obstruct

implementation of the AQMP if it is consistent with the growth assumptions of the AQMP. Here, the AQMP assumes development throughout the region will occur as outlined in SCAG's 2016-2040 RTP/SCS.

The 2018 Campus Master Plan provides for the continuing use of the CSUDH campus for educational purposes, in order to accommodate future area-wide growth in student population. The project proposes to increase on-campus student housing, which will beneficially serve to reduce student commuter trips on the existing roadway networks. In addition, the project proposes to provide ~~market rate~~campus apartment housing and complementary retail uses together with the ~~business park~~campus business park, which is consistent with the strategy to match housing with job centers. As such, the proposed project is consistent with SCAG's policies that call for focusing growth and development within urban areas, encouraging infill development, and encouraging sustainable development that contributes to reducing adverse air quality and greenhouse gas (GHG) impacts. In addition, as discussed in **Section 3.3**, Population and Housing, of the EIR, SCAG's 2016-2040 RTP/SCS is based on continued growth in the number of total households in the City of Carson specifically, as well as the SCAG region generally. The project's proposed development of additional housing in the City of Carson, therefore, is consistent with SCAG's projections that have been factored into the 2016 AQMP.

Although the project is consistent with the growth projections that informed development of the 2016 AQMP and is consistent with primary policies regarding the location of development in infill settings, because the proposed project would exceed SCAQMD's mass daily thresholds for identified pollutants during construction and operation (see analysis provided relative to Threshold 2), it is conservatively assumed that the proposed project would conflict with the 2016 AQMP for purposes of Threshold 1.

Cumulative Impacts

As stated, under both short-term construction and long-term operational conditions, the proposed project would exceed thresholds for specific criteria pollutants. During short-term construction periods, VOC emissions would result in significant impacts. Under long-term operational conditions, the project emissions for VOCs, NO_x, CO, PM_{10} and $PM_{2.5}$ would result in significant impacts. Combined with foreseeable and unforeseeable future developments in the region, the proposed project would contribute to the impacts on air quality, and therefore, the cumulative impact would be considered significant and unavoidable under Threshold 2.

Mitigation Measures

Construction

In order to address the proposed project's significant VOC emissions during the construction period, the following mitigation is recommended:

AQ-1: During the project's grading phase, 2010 or newer diesel haul trucks shall be used to transport on-site soil, to the extent available.

AQ-2: All off-road, diesel-powered construction equipment greater than 50 horsepower shall meet Tier 4 emission standards, where available. At a minimum, all off-road, diesel-powered construction equipment greater than 50 horsepower shall meet the Tier 3 emission standards for non-road diesel engines promulgated by the USEPA. In addition, all off-road, diesel-powered construction equipment that is not Tier 4 shall be outfitted with Best Available Control Technology (BACT) devices certified by CARB, provided those devices are commercially available and: (1) achieve the standards of Cal/OSHA; (2) are consistent with the construction equipment warranty requirements; (3) are compatible with equipment specifications of the construction equipment manufacturer; and (4) do not otherwise interfere with the proper functioning of the construction equipment. Any BACT devices used shall achieve emissions reductions that are equal to or greater than a Level 3 diesel emissions control strategy for a similarly-sized engine, as defined by CARB regulations, provided that the devices are commercially available and satisfy the four requirements enumerated above.

It is noted that, as a matter of regulatory compliance, the proposed project shall adhere to SCAQMD Rule 1113, which establishes a comprehensive regulatory program for architectural coatings – the primary source of project-related VOC emissions. The most current Rule 1113 standards are available at http://www.aqmd.gov/home/rules-compliance/compliance/vocs/architectural-coatings/tos. Because Rule 1113 is amended from time to time as new scientific technologies emerge, the project shall comply with the version of Rule 1113 in effect at the time of the activity subject to rule application.

Operation

To address the proposed project's significant VOC, NO_X, CO, PM_{10} and $PM_{2.5}$ emissions during the operational period, the following mitigation is recommended:

AQ-3: Upon approval of the 2018 Campus Master Plan, CSUDH shall send a letter to SCAQMD and SCAG notifying the agencies of the approved campus development (with information about approved land uses, etc.), and such letter shall specifically request that the agencies include the approved campus development in all future regional growth forecasts. This letter commitment will ensure that campus growth-related emissions are accounted for in future regional emissions inventories.

AQ-4: CSUDH shall develop Green Product educational materials that shall be made available to all campus faculty, staff and students via the campus website, student handbook and orientation materials, and employee handbook and orientation materials. The Green Product educational materials also shall be made available to all residential and non-residential tenants within the University Village portion of the campus. The educational materials shall be tailored to residential, non-residential, and institutional consumers, and include information regarding: (1) the environmental benefits of low VOC/ROG consumer products; (2) the use of cleaning compounds, polishes

and floor finishes, cosmetics and personal care products, home, lawn and garden products, and paints and architectural coatings; and, (3) the importance of recycling and purchasing recycled materials.

AQ-5: When residential appliances are offered by homebuilders in the University Village portion of the CSUDH campus, the project shall install Energy Star appliances (specifically, clothes washers, clothes dryers, dish washers, fans and refrigerators).

Additionally, the Transportation Demand Management (TDM) Plan set forth in **Section 3.9**, Traffic and Circulation, of this EIR shall be implemented. As described therein, the TDM Plan shall reduce vehicle trips and increase the use of transit, bicycling and pedestrian use on campus, which serves to result in co-benefits in the form of emission reductions. The TDM Plan beneficially reduces tailpipe emissions from project-related mobile sources by setting forth employee and student rideshare opportunities; enhancing pedestrian and bicycle access; and, requiring transit-enabling improvements. Ultimately, the TDM Plan will guide CSUDH in its efforts to improve environmental sustainability, shift the fundamental nature of the campus away from being almost exclusively a "commuter" school, maximize its transportation resources, and provide specific strategies to enable the University to invest in a transportation system that supports all modes of travel. Because project-related mobile sources are the primary contributor of operational emissions, implementation of the TDM Plan will serve to achieve criteria air pollutant emission reductions.

Level of Impact After Mitigation

The project's comprehensive sustainability programs and features guiding future development of the campus and implementation of the identified mitigation measures will reduce emissions to the extent feasible. Indeed, the proposed project will provide more on-campus student and residential housing that would reduce commute trips and associated mobile emissions; replace existing, less efficient buildings with new, more efficient buildings; locate housing next to employment; result in compact infill development within compact campus communities; reduce emissions through implementation of comprehensive sustainability programs, policies, and design and planning features; and demonstrate consistency with regional sustainability growth strategies and goals. However, the proposed project's construction emissions (VOC) and operational emissions (VOC, NO_X, CO, PM_{10} and $PM_{2.5}$) are estimated to exceed SCAQMD's mass daily thresholds, and result in a potential conflict with SCAQMD's AQMP. These impacts are considered significant and unavoidable.

3.3 Biological Resources

This section analyzes the 2018 Campus Master Plan's (proposed project) potential impacts on biological resources, including wetlands and waters of the United States. Where the analysis identifies project-specific or cumulative biological impacts that exceed the established significance criteria, this Environmental Impact Report (EIR) recommends mitigation measures that, if implemented, would reduce the impacts to a less-than-significant level. The analysis set forth below is based on (1) a review of pertinent literature; (2) an on-site investigation to identify jurisdictional wetlands and waters conducted on August 9, 2017 by SWCA Environmental Consultants; and, (3) a focused branchiopod survey conducted by Dudek on October 21, 2011 within the one vernal pool located within the project area. The branchiopod/vernal pool evaluation (titled, Results of Focused Dry Season Presence/Absence Survey for Vernal Pool Branchiopods on the California State University, Dominguez Hills Campus, Los Angeles County, California (November 2012)) is summarized below and attached to this EIR as **Appendix C.1**. The wetland/waters evaluation (titled, California State University Dominguez Hills Master Plan Update Preliminary Wetland/Waters Delineation and Assessment (October 2017)) also is summarized below and included in **Appendix C.2** of this EIR.

As discussed in this section, the proposed project has the potential to cause significant impacts to the following biological resources: (1) four drainages located in the southern portion of campus that qualify as "waters of the United States" and thus fall within the regulatory jurisdiction of the United States Army Corps of Engineers (Corps), as well as that of the Regional Water Quality Control Board (RWQCB) and the California Department of Fish and Wildlife (CDFW); (2) a small seasonal wetland located in the northern portion of campus that may support listed fairy shrimp; (3) burrowing owl habitat, which is currently unoccupied but may support burrowing owls at the time project-related grading begins; and (4) eucalyptus trees that may provide perching habitat for raptors (i.e., birds of prey). Each of these potentially significant impacts can be reduced to less-than-significant levels through implementation of the mitigation set forth in this section.

Regulatory Framework

The proposed project has the potential to affect biological resources located on campus. These resources are regulated under federal and state laws. The most important and relevant of these laws are summarized below.

Jurisdictional Waters

United States Army Corps of Engineers (Corps), Section 404 of the Clean Water Act

Under Section 404 of the federal Clean Water Act, the Secretary of the Army, acting through the Corps, is authorized to issue permits relating the discharge of dredged or fill materials into waters of the United States. By statute, these waters include traditional navigable waters, wetlands adjacent to traditional navigable waters, relatively permanent non-navigable tributaries that have a continuous flow at least seasonally (typically three months), and wetlands that directly abut relatively permanent tributaries. In some cases, the waters in question are non-navigable tributaries, are relatively ephemeral (temporary), or consist of wetlands adjacent to non-navigable tributaries. Where this occurs, the Corps will not take jurisdiction over the waters unless it determines there is a significant nexus between the non-navigable water and other water over which Corps has jurisdiction.

Code of Federal Regulations (CFR) Title 33, Section 328.3(a) defines waters of the United States as:

(1) All waters which are currently used, or were used in the past, or may be susceptible to use in interstate or foreign commerce;

(2) All interstate waters including interstate wetlands;

(3) All other waters such as intrastate lakes, rivers, streams (including intermittent streams) the use, degradation or destruction of which could affect interstate or foreign commerce;

(4) All impoundments of waters otherwise defined as waters of the United States under the definition;

(5) Tributaries of waters defined in paragraphs (a)(1)–(4) of this section;

(6) The territorial seas; and,

(7) Wetlands adjacent to waters (other than waters that are themselves wetlands) identified in paragraphs (a) (1)–(6) of this section.

The Corps' jurisdiction over non-tidal waters of the United States extends laterally to the ordinary high water mark (OHWM) or beyond the OHWM to the limit of any adjacent wetlands, if present (33 CFR section 328.4). The OHWM is defined in 33 CFR, Section 328.3(c) as:

that line on the shore established by the fluctuations of water and indicated by physical characteristics such as a clear natural line impressed on the bank, shelving, changes in the character of soil, destruction of terrestrial vegetation, the presence of litter and debris, or other appropriate means that consider the characteristics of the surrounding areas.

Regional Water Quality Control Board, Section 401 of the Clean Water Act

Within California, nine RWQCBs regulate the discharge of fill and dredged material in California under Section 401 of the Clean Water Act and the State Porter-Cologne Water Quality Control Act. In this sense, the RWQCB and the Corps share regulatory jurisdiction over discharges and dredging within the waters of California that also qualify as waters of the United States. For this reason, State Water Quality Certification is necessary for all projects that require a Clean Water Act Section 404 permit, or fall under other federal jurisdiction, and have the potential to impact waters of the United States. Note, however, that "isolated" waters are not subject to the federal Clean Water Act. Specifically, –the U.S. Supreme Court in (2001) 531 U.S. 159 (SWANCC) held that isolated waters are non-jurisdictional under Section 404, and that projects affecting only isolated waters do not require Section 404/401 permits and/or State Water Quality Certifications.

California Department of Fish and Wildlife, Sections 1600-1602 of the California Fish and Game Code

Pursuant to Division 2, Chapter 6, Sections 1600–1602 of the California Fish and Game Code, CDFW regulates all diversions, obstructions, or changes to the natural flow or bed, channel, or bank of any river, stream, or lake, which supports fish or wildlife. CDFW defines a "stream" (including creeks and rivers) as "a body of water that flows at least periodically or intermittently through a bed or channel having banks and supports fish or other aquatic life. This includes watercourses having surface or subsurface flow that supports or has supported riparian vegetation." The CDFW's definition of "lake" includes "natural lakes or man-made reservoirs." The CDFW jurisdiction within altered or artificial waterways is based upon the value of those waterways to fish and wildlife. The CDFW Legal Advisor has prepared the following opinion:

- Natural waterways that have been subsequently modified and which have the potential to contain fish, aquatic insects, and riparian vegetation will be treated like natural waterways...;
- Artificial waterways that have acquired the physical attributes of natural stream courses, and which have been viewed by the community as natural stream courses, should be treated as natural waterways...;
- Artificial waterways without the attributes of natural waterways should generally not be subject to Fish and Game Code provisions. The CDFW can be expected to take jurisdiction over all areas that have evidence of cut bank and channel, or evidence of historical flows, to the point where no confining feature is present.

Wildlife

Migratory Bird Treaty Act

The Migratory Bird Treaty Act (MBTA) makes it unlawful at any time, by any means, or in any manner to pursue, hunt, take, capture, or kill migratory birds. The law applies to the

removal of nests occupied by migratory birds during the breeding season. Migratory birds, as defined under this Act, are most native birds in North America, with a few exceptions (e.g., galliformes and wrentit). Permitted activities are allowed under U.S. Fish and Wildlife Service (USFWS) regulations for hunting and preventing or minimizing risks to human safety.

Federal Endangered Species Act

The USFWS regulates species listed as endangered and/or threatened under the federal Endangered Species Act (ESA) under Section 9 of federal ESA, which forbids any person to "take" an endangered or threatened species. "Take" is defined in Section 3 of the ESA as any action to "harass, harm, pursue, hunt, shoot, wound, kill, trap, capture, or collect or to attempt to engage in any such conduct." The U.S. Supreme Court ruled that the term "harm" includes destruction or modification of habitat. Sections 7 and 10 of the ESA may authorize "incidental take" for an otherwise lawful activity (a development project, for example) if it is determined that the activity would not jeopardize the species' survival or recovery. Section 7 applies to projects where a species on the federal list is present and a federal nexus exists as the need for a federal Clean Water Act Section 404 permit or the use of federal funds. Section 10 applies when a species on the federal list is present, but no federal nexus is present.

~~California Fish and Game Code~~

California Department of Fish and Wildlife, Sections 2050 & 2081 of the California Fish and Game Code

The California Department of Fish and Wildlife (CDFW) administers the California Endangered Species Act (CESA) (California Fish and Game Code, Section 2050 et seq.), which prohibits the unauthorized "take" of plant and animal species designated by the California Fish and Game Commission as endangered or threatened in California. Under CESA, Section 86, take is defined as "hunt, pursue, catch, capture, or kill, or attempt to hunt, pursue, catch, capture, or kill." CESA, Section 2053 stipulates that state agencies may not approve projects that will "jeopardize the continued existence of any endangered species or threatened species or result in the destruction or adverse modification of habitat essential to the continued existence of those species, if there are reasonable and prudent alternatives available consistent with conserving the species or its habitat which would prevent jeopardy."

CESA, Sections 2080 through 2085 address the taking of threatened, endangered, or candidate species by stating, "No person shall import into this state, export out of this state, or take, possess, purchase, or sell within this state, any species, or any part or product thereof, that the Commission determines to be an endangered species or a threatened species, or attempt any of those acts, except as otherwise provided in this chapter, the Native Plant Protection Act (Fish and Game Code, Sections 1900–1913), or the California Desert Native Plants Act (Food and Agricultural Code, Section 80001)."

Section 2081(b) and (c) of the Fish and Game Code authorizes take of endangered, threatened, or candidate species if take is incidental to otherwise lawful activity and if specific criteria are met. In such cases, CDFW issues the applicant an Incidental Take Permit (ITP), which functions much like an incidental take permit in the federal context. Sections 2081(b) and (c) also require CDFW to coordinate consultations with USFWS for actions involving federally listed species that are also state-listed species. In certain circumstances, Section 2080.1 of the CESA allows CDFW to adopt a federal incidental take statement or a 10(a) permit as its own, based on its findings that the federal permit adequately protects the species and is consistent with state law. However, CDFW may not issue a Section 2081(b) ITP for take of "fully protected" species.

California Department of Fish and Wildlife, Sections 1602 of the California Fish and Game Code

Pursuant to Section 1602 of the Fish and Game Code, CDFW regulates all diversions, obstructions, or changes to the natural flow or bed, channel, or bank of any river, stream, or lake that supports fish or wildlife. A Streambed Alteration Agreement is required for impacts to jurisdictional wetlands in accordance with Section 1602 of the California Fish and Game Code.

California Department of Fish and Wildlife, Sections 3511, 4700, 5050, and 5515 of the California Fish and Game Code

Sections 3511, 4700, 5050, and 5515 of the Fish and Game Code designate certain birds, mammals, reptiles/amphibians, and fish, respectively, as "fully protected" species. Some, but not all, of these species have dual status as listed species under CESA as well. Note, however, that "fully protected" species may not be taken or possessed except under very limited circumstances. Specifically, the Fish and Game Commission may issue a permit to take a "fully protected" species but only if the proposed take is pursuant to scientific research or in connection with an authorized Natural Community Conservation Plan (NCCP). No "incidental take" of fully protected species is allowed, which means that CDFW cannot issue an Incidental Take Permit for such species.

California Department of Fish and Wildlife, Sections 3503 and 3503.5 of the California Fish and Game Code

Native Nesting Bird Protections. Code 3503 reads, "it is unlawful to take, possess, or needlessly destroy the nest or eggs of any bird, except as otherwise provided by this code or any regulation made pursuant thereto". Code 3503.05 reads, "it is unlawful to take, possess, or destroy any birds in the orders Falconiformes or Strigiformes (birds of prey) or to take, possess, or destroy the nest or eggs of any such bird except as otherwise provided by this code or any regulation adopted thereto.

California Environmental Quality Act (CEQA)

The California Environmental Quality Act (CEQA) requires identification of a project's potentially significant impacts on biological resources and feasible mitigation measures and alternatives that could avoid or reduce significant impacts. CEQA Guidelines Section

15380(b)(1) defines endangered animals or plants as species or subspecies whose "survival and reproduction in the wild are in immediate jeopardy from one or more causes, including loss of habitat, change in habitat, overexploitation, predation, competition, disease, or other factors." A rare animal or plant is defined in CEQA Guidelines Section 15380(b)(2) as a species that, although not presently threatened with extinction, exists "in such small numbers throughout all or a significant portion of its range that it may become endangered if its environment worsens; or … [t]he species is likely to become endangered within the foreseeable future throughout all or a significant portion of its range and may be considered 'threatened' as that term is used in the federal Endangered Species Act." Additionally, an animal or plant may be presumed to be endangered, rare, or threatened if it meets the criteria for listing, as defined further in CEQA Guidelines Section 15380(c). CEQA also requires identification of a project's potentially significant impacts on riparian habitats (such as wetlands, bays, estuaries, and marshes) and other sensitive natural communities, including habitats occupied by endangered, rare, and threatened species.

Environmental Setting

The CSUDH campus is located in a developed urban area within the City of Carson (see **Figures 2.0-3** and **2.0-4** in the EIR's Project Description). The western portion of the campus area is developed with the StubHub Center facilities. The campus central core area is developed with academic, administrative, student housing, and other facilities; parking lots; associated landscaping; and infrastructure. Undeveloped land within the campus' eastern portion is comprised of vacant parcels and disked fields (east of Birchknoll Drive), and a native landscape project (west of Birchknoll Drive).

The campus is relatively flat and ranges from 57 to 115 feet above sea level, draining in a general southwest direction. In the prior 2009 Campus Master Plan effort, which the Board of Trustees approved in May 2010, CSUDH prepared, and the Board of Trustees certified, the Final EIR (State Clearinghouse No. 2007031129) for the previously approved master plan. At that time, the Final EIR examined the biological resources occurring on campus based on the biota survey conducted by ICF Jones & Stokes in 2007. The plant and animal species observed onsite, or with the potential to be observed onsite, were recorded and listed in Appendix A to the Final EIR. In addition, a complete list of special-status species was provided in Appendix B to the Final EIR.

The campus remains situated in a highly urbanized setting; and the on-site biological resources have not undergone any substantial changes since the prior Final EIR was certified. For this reason, this current biota analysis focuses on the developed and undeveloped campus areas comprising the newly proposed 2018 Campus Master Plan project.

For purposes of the analysis presented below, the current proposed project is divided into two separate on-campus locations — the northern site and the southern site. The northern site is located approximately 40 to 260 feet west of Toro Center Drive, in an open field with mature Canary Island pines (*Pinus canariensis*) and paved parking lots to the north

and south. The southern site is located immediately north of East University Drive and west of Central Avenue, and is surrounded by open fields and developed lots.

Wildlife

As stated above, the CSUDH campus was surveyed for biological resources in 2007 as part of the prior campus master planning process. The surveys identified a small potential burrowing owl habitat area in the southern undeveloped campus area, during the 2007 site visit, ground squirrel burrows were observed along a berm in this area. No burrowing owls were observed during that visit, nor did the biologist find sign (i.e., scat, feathers, or tracks) of the species. However, burrowing owls are a migrant species, moving between wintering and breeding grounds, so there is still some potential for them to reside in or use the southern undeveloped campus area. In short, though the species was not observed during the prior biological surveys, potential remains for burrowing owls to occur on site due to the presence of potential foraging and burrow habitat. Loggerhead shrike is a state species of special concern. While not observed during the prior biological survey, this species has a high potential to occur on site given the suitable areas for nesting and foraging adjacent to the open field.

The prior biota surveys also evaluated the existing landscape of the campus, which includes scattered mature eucalyptus and ornamental pine trees in the core and southern campus areas. These trees could provide potential nesting habitat for raptors that occur in the region (e.g., red-tailed hawk) and special-status raptors with potential to occur in the area (e.g., Cooper's hawk).

The northern site includes an approximately 50 feet by 50 feet man-made depression that periodically retains surface water during higher-than-normal rainfall years. —The depression area was created inadvertently in the 1970s as a result of construction activities that left a depression or bowl. The seasonal wetland has the potential to support federally-endangered vernal pool branchiopod species protected under the ESA, including Riverside fairy shrimp (Streptocephalus woottoni) and San Diego fairy shrimp (Branchinecta sandiegonensis). Dry season presence/absence surveys for vernal pool branchiopod species were conducted in 2006 and in 2011[1]. Although several non-listed fairy shrimp (e.g., versatile fairy shrimp [Branchinecta lindahli]) were identified during the survey efforts, no special-status or listed species were found.

For purposes of the federal Endangered Species Act, USFWS protocol requires both wet and dry season surveys to confirm presence/absence of federally-listed vernal pool branchiopods. The California Environmental Quality Act (CEQA), however, does not require "protocol" surveys to establish existing conditions for purposes of conducting impact assessments. (*Association of Irritated Residents v. County of Madera* (2003) 107 Cal.App.4th 1383, 1395-1397.) In this case, wet season surveys were attempted but

[1] See **Appendix C.1** for the Dudek letter report to the U.S. Fish and Wildlife Service addressing the results of focused dry season presence/absence survey for vernal pool branchiopods on campus (November 2012).

could not be conducted due a lack of suitable conditions, i.e. insufficient inundation during the 2005-2006 wet season and again during the 2010-2011 wet season. Therefore, for purposes of CEQA, this EIR assumes that the small wetland/vernal pool has the potential to support listed branchiopod species (i.e., listed fairy shrimp).

No other special-status wildlife species were observed at the project site during the 2007 surveys. Habitat conditions at the site have not substantially changed since 2007 and there is no evidence that additional special-status species now reside in or use the project site.

Plants

The 2007 biology surveys did not identify any sensitive or special-status plants within the project site.

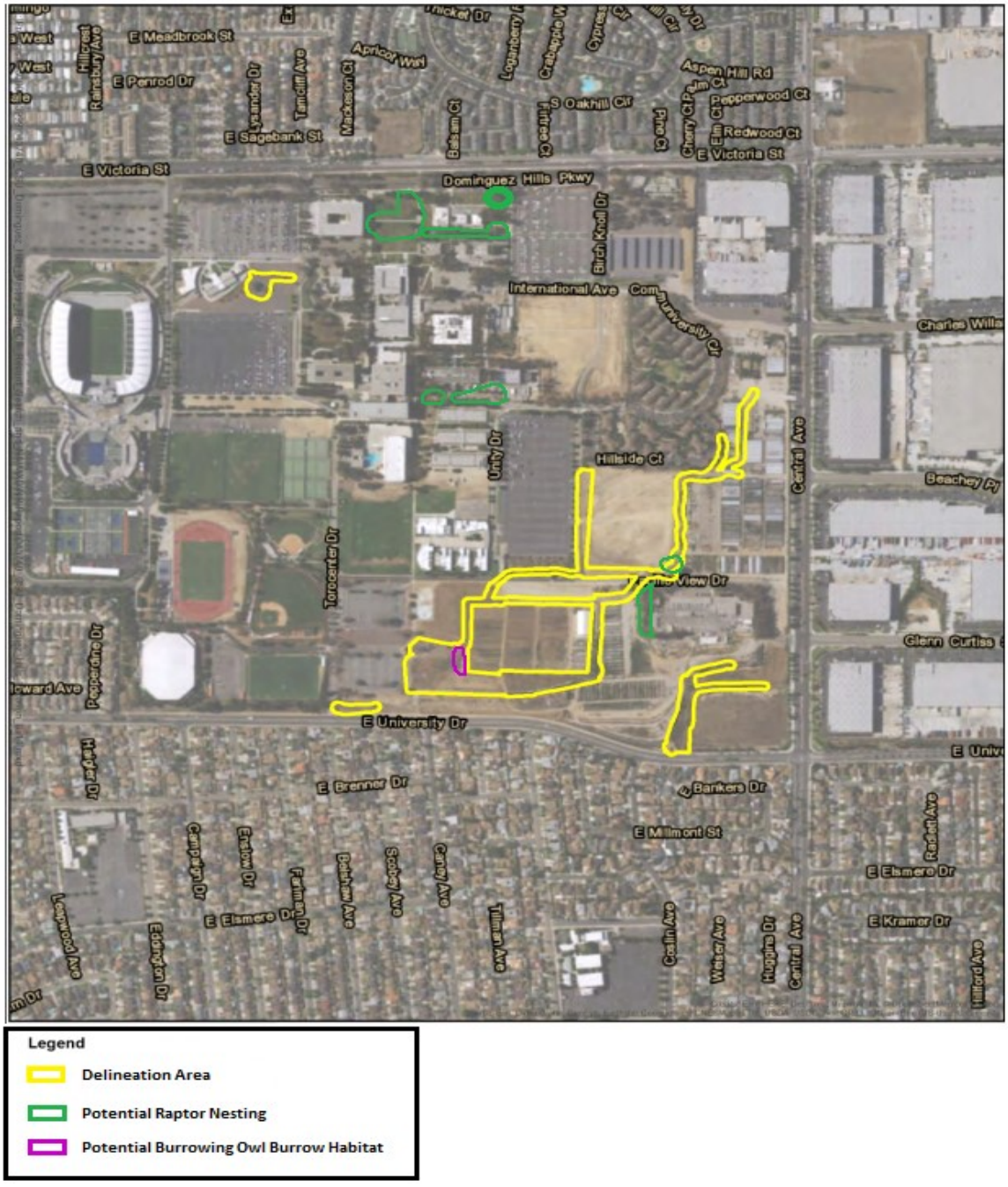
Waters and Wetlands

The approximate 50-feet by 50-feet area in the northern campus site is situated near the Extended Education Center. In addition, there are existing ephemeral drainages and retention basins in the undeveloped southeastern area of the campus. A jurisdictional delineation was conducted to determine if these waters constitute (1) wetlands and/or waters of the United States and thus fall under the regulatory jurisdiction of Corps, and/or (2) waters of the State, and thus fall under the jurisdiction of the RWQCB and CDFW. The area studied (i.e., delineation area) consisted of the following:

- The depression area in the campus northern site adjacent to the Extended Education Center west of Toro Center Drive; and
- The drainages and retention basins within the undeveloped campus southern site situated south of Pacific View Drive near the facilities services building.

Figure 3.3-1 illustrates the delineation areas studied, and the previously identified potential burrowing owl habitat and raptor nesting areas.

Figure 3.3-1
Biological Resources



Northern Site: The northern site is generally concave and now functions seasonally as a wetland (i.e., it holds water only during certain parts of the winter rainy season). The wetland was created by construction of the nearby campus facilities in 1972 and the subsequent construction and improvements in the area. The wetland delineation prepared by SWCA classified the site's seasonally flooded wetland as a palustrine emergent temporarily flooded wetland (PEMA). The wetland feature delineation area begins at a culvert at Toro Center Drive, continues west through a narrow, channelized swale, and eventually spreads out in an open area located east of the Extended Education Center (see **Figure 3.3-1**). The wetland is not identified within the NWI internet-based Wetlands Mapper.

The northern site is surrounded by existing campus development and vegetation within the site is largely absent. The area receives regular landscaping maintenance during which vegetation is removed. Plant species observed within the delineation area at the time of the survey were two Canary Island pines, eucalyptus (*Eucalyptus* sp.), widely spaced laurel sumac (*Malosma laurina*), cudweed (*Pseudognaphalium canescens*), and spike rush (*Eleocharis* sp.). This seasonal wetland has the potential to support federally-endangered vernal pool branchiopod species protected under the ESA, as described above.

~~This seasonal wetland has the potential to support federally-endangered vernal pool branchiopod species protected under the ESA, including Riverside fairy shrimp (*Streptocephalus woottoni*) and San Diego fairy shrimp (*Branchinecta sandiegonensis*). Dry season presence/absence surveys for vernal pool branchiopod species were conducted in 2006 and in 2011.[2] Although several non-listed fairy shrimp (e.g., versatile fairy shrimp [*Branchinecta lindahli*]) were identified during the survey efforts, no special-status species were found.~~

~~For purposes of the federal Endangered Species Act, USFWS protocol requires both wet and dry season surveys to confirm presence/absence of federally-listed vernal pool branchiopods. The California Environmental Quality Act (CEQA), however, does not require "protocol" surveys to establish existing conditions for purposes of conducting impact assessments. (*Association of Irritated Residents v. County of Madera* (2003) 107 Cal.App.4th 1383, 1395-1397.) In this case, wet season surveys were attempted but could not be conducted due a lack of suitable conditions, i.e. insufficient inundation during the 2005-2006 wet season and again during the 2010-2011 wet season. Therefore, for purposes of CEQA, this EIR assumes that the small wetland/vernal pool has the potential to support listed branchiopod species (i.e., listed fairy shrimp).~~

Southern Site: The southern site is comprised of open fields where stormwater runoff has been channelized into man-made ephemeral drainages. These drainage features flow

~~[2] See **Appendix C.1** for the Dudek letter report to the U.S. Fish and Wildlife Service addressing the results of focused dry season presence/absence survey for vernal pool branchiopods on campus (November 2012).~~

into man-made basins and storm drains, which have hydrological connectivity to the Dominguez Channel and the Los Angeles River.

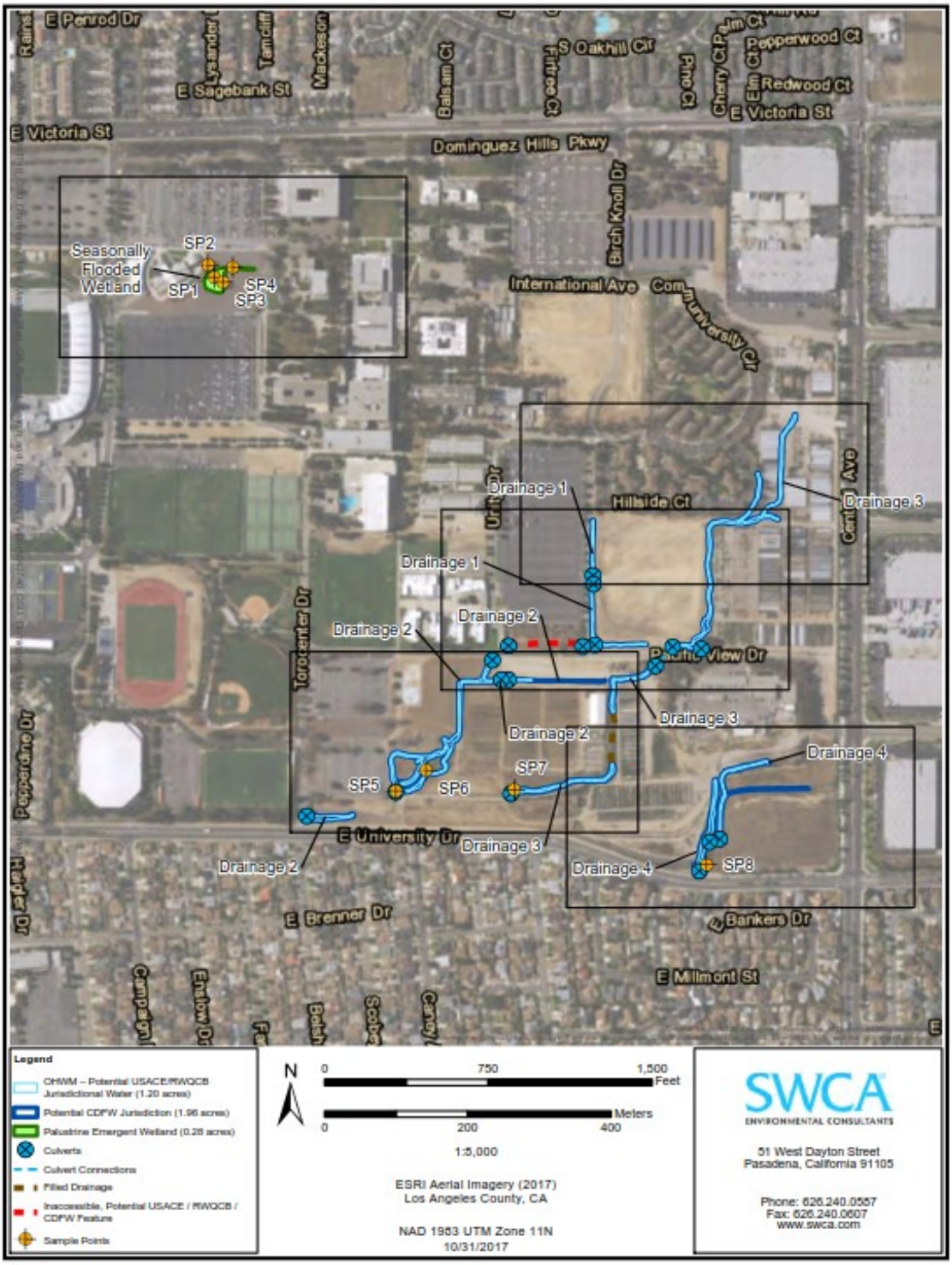
- **Drainage 1:** The northwestern most drainage feature located along Birchknoll Road (Drainage 1) is an altered, ephemeral drainage that extends south from Parking Lot 5B on the east side of Birchknoll Road to Pacific View Drive to a culvert which enters into Heritage Creek Nature Preserve and flows into a culvert which connects to Drainage 2.
- **Drainage 2:** Drainage 2 is an ephemeral altered drainage that extends from Pacific View Drive south through open fields to a manmade basin and culvert north of East University Drive.
- **Drainage 3:** East of Drainage 2 and south of Pacific View Drive is a large ephemeral drainage (Drainage 3) that flows southwest and south to a manmade basin and culvert north of East University Drive.
- **Drainage 4:** South of the Physical Plant and Pacific View Drive is Drainage 4 which flows west and south to a culvert north of East University Drive (see **Figure 3.3-2**).

The dominant vegetation community present within the southern site is classified as *Brassica nigra and other mustards* Herbaceous Semi-Natural Alliance and is dominated by short pod mustard (*Hirschfeldia incana*), sunflower (*Helianthis annuus*), tree tobacco (*Nicotiana glauca*), and Russian thistle (*Salsola tragus*). Portions of the delineation area located along Birchknoll Road and Pacific View Drive (near Drainage 1) are devoid of vegetation as a result of regular maintenance.

Functions and Values of Jurisdictional Areas

Overall, the jurisdictional features in the project's delineation areas do not provide significant wildlife habitat and primarily provide dispersion of stormwater and sediment into man-made basins and the stormwater drains. However, the freshwater emergent wetland and surrounding uplands in the project's northern site provide habitat function and values for non-sensitive versatile fairy shrimp (*Branchinecta lindahli*), which historically have occurred at that location.

Figure 3.3-2
Wetlands and Waters Delineation and Assessment Map



Wetlands/Waters Jurisdictional Determination

The ~~Preliminary~~ Wetland/Waters Delineation and Assessment (**Appendix C.2**) identifies potential federal and state jurisdictional areas within the delineation area. These jurisdictional results are subject to review by regulatory agencies, including the Corps and CDFW. Discussed below is the rationale for considering wetlands and waters in the delineation area to be potentially jurisdictional.

Wetlands Delineation Within the Northern Site

The wetland delineator, SWCA Environmental Consultants, evaluated four sample plots from the seasonal wetland in the project's northern site. To qualify as a jurisdictional wetland, the sample plots must show the presence of hydric soils, wetlands hydrology, and hydrophytic vegetation. Unless these three parameters are met, the wetland does not fall within the regulatory purview of the Corps. Each of the four sample plots is summarized below:

- **Sample Plot 1**: The area near this sample plot is a managed plant community, which receives regular maintenance and has a thick layer of mulch. During the wetland delineation survey, no wetland hydrology indicators were observed, suggesting that the plot would not meet the three-part jurisdictional test. However, in 2004 and 2005, the University conducted fairy shrimp surveys within the wetland feature during the dry season, and those surveys detected non-listed fairy shrimp cysts (*Branchinecta lindahli*), which are considered a hydrological indicator (B13). Therefore, due to the presence of hydric soils and wetland hydrology, Sample Plot 1 may meet the requirements of the Corps' "problematic" wetland.
- **Sample Plot 2**: This sample plot included a 10-foot diameter plot located in the open field approximately 200 feet north and slightly upslope of Sample Plot 1, and approximately 25 feet west of the drainage swale. Fill material was observed throughout the plot. No wetland hydrology features were identified and, as a result, Sample Plot 2 did not meet the three criteria necessary to qualify as a Corps wetland.
- **Sample Plot 3**: This plot is located in a low-lying depression 200 feet west of Toro Center Drive and 110 feet south of Parking Lot 3. Vegetation within the plot was sufficient to pass the hydrophytic vegetation dominance test. No wetland hydrology indicators were observed, but dry season fairy shrimp surveys conducted in 2004 and 2005 detected non-listed fairy shrimp cysts (*Branchinecta lindahli*), which are considered a hydrological indicator (B13). Thus, due to the presence of hydrophytic vegetation, hydric soils, and wetland hydrology, Sample Plot 3 may meet the requirements of a Corps wetland.
- **Sample Plot 4**: This plot is situated along the northern edge of the freshwater emergent wetland. The plot exhibited the presence of hydric soils and wetland hydrology, but the delineator could not determine if the site supports or could support wetland vegetation. This is because the plot location is subject to routine

maintenance that may prevent wetland vegetation from establishing itself. Therefore, the delineator determined that Sample Plot 4 may meet the requirements of a Corps problematic wetland.

Based on the literature review and field investigation discussed above, SWCA determined that the freshwater seasonally flooded wetland in the project's northern site does not meet the criteria of a CDFW aquatic resource or state waters under the jurisdiction of RWQCB (**Table 3.3-1**). Some of the sample plots exhibited characteristics of a Corps jurisdictional wetland (hydric soils, wetland hydrology, and hydrophytic vegetation). The wetland is isolated and has no outlet and, therefore, no hydrological connection to any traditional navigable water. For these reasons, it likely does not qualify as a wetland/waters of the U.S. under the jurisdiction of the Corps pursuant to Section 404 of the Clean Water Act. That determination, however, rests with the Corps. Therefore, this EIR includes mitigation measures to address impacts to the freshwater emergent wetland in the event the Corps determines it qualifies as a jurisdictional wetland.

Wetlands Delineation Within the Southern Site

SWCA Environmental Consultants also evaluated four sample plots in the drainage channels (Drainages 1, 2, 3, and 4) located in the southern portion of the site to determine if they qualify as Corps wetlands:

- **Sample Plot 5**: This plot is located at the southern end of Drainage 1, along Birchknoll Road, which terminates at a culvert within a man-made detention basin. The plot showed no evidence of hydric soils, wetlands hydrology, or hydrophytic vegetation. Consequently, it does not qualify as a Corps wetland.
- **Sample Plot 6**: Sample Plot 6 is also located near Drainage 1, but closer to East University Drive. This plot also showed no evidence of hydric soils, wetlands hydrology, or hydrophytic vegetation. Consequently, it does not qualify as a Corps wetland.
- **Sample Plot 7**: This plot is located near Drainage 3, approximately 200 feet north of East University Drive. The plot showed no evidence of hydric soils, wetlands hydrology, or hydrophytic vegetation. Consequently, it does not qualify as a Corps wetland.
- **Sample Plot 8**: This plot is located near Drainage 4, approximately 80 feet north of East University Drive. The plot showed no evidence of hydric soils, wetlands hydrology, or hydrophytic vegetation. Consequently, it does not qualify as a Corps wetland.

As these data indicate, none of the ephemeral drainages in the project's southern site qualify as Corps jurisdictional wetlands. They may, however, qualify as non-wetland waters of the U.S. and, as such, fall within the regulatory purview of the Corps. SWCA assessed the four drainages to determine if, in fact, any of them qualify as U.S. waters.

U.S. Waters Delineation of the Southern Site Drainages

As explained in SWCA's delineation, the project's southern site contains a series of ephemeral drainage features commonly referred to as Drainages 1, 2, 3, and 4. The drainages show evidence of an OHWM and each of them is connected to Dominguez Channel and the Los Angeles River. As a result, the drainages may qualify as non-wetland waters of the U.S. and fall within the jurisdiction of Corps. In addition, due to the presence of bed and bank, the drainages are potentially subject to CDFW jurisdiction under Sections 1600-1602 of the Fish and Game Code. For these reasons, SWCA determined that each of the four drainages meet the criteria of a Corps and RWQCB jurisdictional non-wetland waters, as well as a CDFW aquatic resource (**Table 3.3-1**).

Table 3.3-1 quantifies the total area of potential Corps, CDFW, and RWQCB jurisdictional waters within the survey areas.

Table 3.3-1
Area of Potential Jurisdictional Waters

	Aquatic Resource Size for Wetlands (acres)	Aquatic Resource Size Required for Stream Channels Corps/RWQCB (acres)	Aquatic Resource Size Required for Stream Channels CDFW (acres)
Seasonally Flooded Wetland	0.238		
Ephemeral Drainage 1	n/a	0.078	0.138
Ephemeral Drainage 2	n/a	0.427	0.642
Ephemeral Drainage 3	n/a	0.477	0.754
Ephemeral Drainage 4	n/a	0.216	0.431

U.S. Army Corps of Engineers Jurisdictional Areas: As mapped on **Figure 3.3-2**, areas potentially subject to the Corps' jurisdiction under Section 404 of the Clean Water Act consist of the freshwater emergent wetland in the project's northern site and four ephemeral drainage features (Drainages 1, 2, 3, and 4) in the project's southern site. In the case of the freshwater emergent wetland, potential jurisdiction is based on evidence of dominant wetland (hydrophytic) vegetation, hydric soil, and wetland hydrology. Again, however, the wetland's isolation from any other water source may disqualify it as a jurisdictional wetland. The Corps will make the final determination on that issue. In the case of the ephemeral drainages, potential jurisdiction is based on OHWM and hydrological connection of the drainages to the Dominguez Channel and the Los Angeles River, a traditional navigable water. The total non-wetland waters potentially subject to Corps jurisdiction consist of 1.198 acres and 6,543 linear feet (see **Appendix C.2**).

Regional Water Quality Control Board Jurisdictional Areas: As mapped on **Figure 3.3-2**, areas potentially subject to RWQCB jurisdiction under Section 401 of the Clean Water Act consist of the freshwater emergent wetland in the northern portion of site and

four ephemeral drainage features (Drainages 1, 2, 3, and 4) in the southern portion of the site. Potential jurisdiction is based on the evidence of dominant wetland vegetation, hydric soil, and wetland hydrology, OHWM and hydrological connection of the ephemeral drainages to the Dominguez Channel and the Los Angeles River, a traditional navigable water. The total wetland waters potentially subject to RWQCB jurisdiction consists of 0.238 acre. The total non-wetland waters potentially subject to RWQCB jurisdiction consist of 1.198 acres and 6,543 linear feet (see **Appendix C.2**).

California Department of Fish and Wildlife Jurisdictional Areas: As mapped on **Figure 3.3-2**, areas potentially subject to CDFW jurisdiction under Sections 1600–1602 of the Fish and Game Code consist of the four ephemeral drainage features (Drainages 1, 2, 3, and 4). Potential jurisdiction is based on the evidence of a bed and bank. The total wetland waters potentially subject to CDFW jurisdiction consists of 0.238 acre. The total potential CDFW jurisdictional streambeds consist of 1.965 acres and 7,270 linear feet (see **Appendix C.2**).

Environmental Impacts

Significance Thresholds

Impact on biological resources is significant if the project will:

Threshold 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 CDFW or USFWS;

Threshold 2: Have a substantial adverse effect on any riparian habitat or other sensitive natural communities identified in local or regional plans, policies, regulations, or by the CDFW or USFWS;

Threshold 3: Have a substantial adverse effect on state or federally-protected wetlands (including, but not limited to, marsh, vernal pool, coastal, etc.) through direct removal, filling, hydrological interruption, or other means;

Threshold 4: Interfere substantially with the movement of any resident or migratory species of wildlife or with established native resident or migratory wildlife corridors; and

Threshold 5: Conflict with the provisions of an adopted federal Habitat Conservation Plan, Natural Community Conservation Plan,

or other approved local, regional, or state Habitat Conservation Plan.[3]

Environmental Impact

The proposed project contemplates the construction of new facilities and improvements in previously undeveloped areas within the campus. Such facilities include student housing apartments and campus business park structures and amenities at University Village within the eastern portion of the campus. It also includes surface parking and a roadway extension providing access to a new parking structure southeast of Toro Drive and north of University Drive in the southeastern portion of the campus. These proposed development areas contain drainages that have been delineated as jurisdictional waters. These waters could be temporarily and/or permanently affected by construction of new facilities and improvements, resulting in significant impacts. Mitigation measures have been identified to reduce these potentially significant impacts to a less-than-significant level. The mitigation measures are summarized below.

Within the core campus area, a new academic facility is planned in the vicinity of the Extended Education Center, in the area containing a small seasonal wetland. The wetland is located in an urban setting and surrounded by ~~historical~~ institutional uses~~;~~. It also lacks connection to any historic pool, and possesses poor ponding characteristics. Therefore, it is unlikely that~~Although~~ the seasonal wetland meets~~does not meet~~ the criteria of a Corps jurisdictional wetland. Nevertheless, it is up to the Corps to make the final determination as to whether the wetland qualifies as a jurisdictional wetland under the federal Clean Water Act. Therefore, the mitigation measures recommended herein are intended to accommodate such a determination.

In addition, ~~although~~ the wetland~~, it does~~ provides potential habitat for ~~sensitive and habitat for non-sensitive~~ fairy shrimp.~~versatile fairy shrimp,~~. ~~S~~s Surveys of the seasonal wetland detected non-listed versatile fairy shrimp but did not detect any *listed* fairy shrimp species. Nevertheless, ~~but~~ this EIR ~~nevertheless~~ assumes listed and non-listed fairy shrimp~~they~~ have the potential to be present. ~~In addition, the wetland is located in an urban setting and surrounded by historical institutional uses, lacks connection to any historic pool, possesses poor ponding characteristics, and shows no sign of supporting listed fairy shrimp.~~ Although~~Moreover,~~ the wetland/vernal pool is not located within the footprint of any facility proposed under the proposed project~~. Nevertheless,~~ grading and other construction activities may affect the wetland, resulting in a potentially significant impact on listed fairy shrimp. Mitigation measures have been identified to reduce this potentially significant impact to a less-than-significant level.

Development of planned facilities and improvements in the project's southern site also could affect the potential burrowing owl habitat, resulting in a significant impact. Mitigation measures have been identified to reduce this potentially significant impact to a less-than-significant level.

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[3] These significance criteria are derived from CEQA Guidelines, Appendix G.

In addition, the proposed project contemplates construction of new facilities and improvements that may result in the removal of mature trees on campus that provide potentially suitable nesting habitat for several species of raptors observed or considered to have the potential to occur within the campus. Raptor and migratory bird nests are considered sensitive biological resources and, if established, could be affected by construction activities (e.g., noise, the presence of people, lighting, etc.). The breeding season varies somewhat between species, but it generally extends from February 1 to June 30 for nesting raptors and March 15 to September 15 for all other birds. Nests are less sensitive outside of the breeding season when they are not in active use; however, raptors often use the same nest sites for many years. Therefore, the loss of inactive nests is considered an adverse effect. Grading in the vicinity of active nests during the breeding season could impede the use of raptor and migratory bird breeding sites. Such an impact could interfere substantially with the movement of native resident wildlife species or use of established native resident or migratory wildlife corridors or impede the use of native wildlife nursery sites, resulting in a significant impact. Mitigation measures have been identified to reduce these potentially significant impacts to a less-than-significant level.

Because there is no adopted federal Habitat Conservation Plan, Natural Community Conservation Plan, or other approved local, regional, or state Habitat Conservation Plan that applies to the campus, no conflict with such plans will result.

As shown above, the proposed project will have no substantial adverse effect on any candidate, sensitive, or special-status species identified in any adopted local or regional plans, policies, or regulations, or by the USFWS or CDFW — except with respect to the potential for fairy shrimp, migratory bird or burrowing owl impacts, which ~~impacts~~ are minimized to less-than-significant levels under the mitigation measures identified below. In addition, as shown, the proposed project will have no substantial adverse effect on any riparian habitat or other sensitive natural communities, except with respect to the proposed project's waters/wetlands northern site. As to waters/wetlands impacts, please see the Mitigation Measures section below.

Cumulative Impacts

As identified in the City of Carson's Development Status Report, other ongoing and future projects have been identified in the Project area.[4] These projects are related to accommodating the projected growth within the Los Angeles region through new development and redevelopment of existing commercial properties. Existing commercial properties that are already developed are not anticipated to have significant biological resources except for street trees or other established vegetation. These developments will be required to comply with CEQA and to mitigate for any potential impacts to biological resources.

Impacts from these projects to non-wetland waters of the U.S. and state would be regulated and permitted following the same procedures as identified above for mitigation

[4] http://ci.carson.ca.us/content/files/pdfs/planning/Development_Status_Report.pdf.

for impacts to Jurisdictional Resources (addressing Impact BIO-1 and Impact BIO-2) at the CSU campus. All projects that have impacts to non-wetland waters (including vernal pools) would be required to perform compensatory mitigation following Corps and state requirements. As such, cumulative development projects would not result in a cumulatively considerable adverse effect on federally-protected non-wetland waters as defined by section 404 of the Clean Water Act.

Burrowing Owl nesting habitat consists of open areas with mammal burrows. They use a wide variety of arid and semi-arid environments, with well-drained, level to gently sloping areas characterized by sparse vegetation and bare ground.[5] Primary threats across the North American range of the Burrowing Owl are habitat loss due to land conversions for agricultural and urban development, and habitat degradation and loss due to reductions of burrowing mammal populations. San Francisco Bay area and many parts of southern California~~,~~ have lost and will continue to lose habitats that once supported Burrowing Owl populations[6]. As such, there is a low probability that the development projects in the City of Carson would have the proper conditions for Burrowing Owl nesting habitat. Impacts to Burrowing Owls within the City of Carson including potential impacts at CSU Dominguez Hills would not be cumulatively considerable.

All nesting birds are protected in the State of California per the laws set forth in Sections 3503 and 3503.5, Fish and Game Code. As such all development projects of the City of Carson will need to abide by the same procedures as identified above for mitigation for impacts to Raptors and Nesting Birds (addressing Impact BIO-4) at the CSU campus. As such, cumulative development projects would not result in cumulatively considerable adverse effects on State-protected nesting birds. No significant cumulative impacts associated with wildlife, plants or wetlands/non-wetland waters would occur, and the proposed project's contribution to cumulative impacts would not be cumulatively considerable and would be less than significant.

Mitigation Measures

1. Jurisdictional Resources (Wetlands/Waters)

BIO-1: The footprints of new facilities and improvements in areas containing the ephemeral Drainages 1, 2, 3, and 4 shall be designed to avoid any direct impacts. This includes avoidance of grading activities, construction, and/or material laydown. If avoidance is infeasible, mitigation measure BIO-2 will be implemented.

BIO-2: The University shall obtain all necessary permits required by the regulatory agencies, including the Corps, CDFW, and RWQCB. The permits may

[5] Status Assessment and Conservation Plan for the Western Burrowing Owl in the United States. 2003. U.S. Department of Interior, Fish and Wildlife Service, Biological Technical Publication FWS/BTP-R6001-2003, Washington, D.C.

[6] Ibid.

include a nationwide permit under Section 404 of the Clean Water Act, a Streambed Alteration Agreement under Sections 1600–1602 of the Fish and Game Code, and the RWQCB Section 401 Water Quality Certification/Waste Discharge permits.

BIO-3: Impacts associated with permanently disturbed areas within regulated waters will be mitigated in-kind at a minimum ratio of 1:1. The regulatory agencies (e.g., the Corps, RWQCB) may require final mitigation ratios greater or less than 1:1. The CSUDH, however, will cause implementation of in-kind mitigation at a 1:1 ratio, or the ratio required by the regulatory agencies, whichever is greater. Specific compensatory mitigation determined by each regulatory agency also may include providing adequate funding to a third-party organization, conservation bank, or in-lieu fee program for the in-kind creation or restoration. If mitigation is implemented offsite, mitigation lands shall be located within the Los Angeles River Watershed or vicinity.

Fairy Shrimp (Listed Branchiopod Species)

BIO-4A: ~~Given the urban nature of the location of the seasonal wetland on the project's northern site, the lack of historical vernal pools, the history of the site, the manufactured nature of the depression, along with the import of other soils and historically poor ponding characteristics, and the dry season identification of non-listed versatile fairy shrimp, no further wet season surveys should be necessary due to the lack of suitable conditions noted herein.~~ If the Corps determines that the northern site is jurisdictional under Section 404 of the Clean Water Act, the Corps will initiate a ESA Section 7 consultation process with the USFWS for potential impacts to federally-listed vernal pool fairy shrimp species. ~~Nonetheless, if the~~ The USFWS may ~~does not concur and~~ require~~s~~ additional protocol-level vernal pool branchiopod surveys to confirm absence of federally-listed branchiopod species., CSUDH shall cause such surveys to be prepared as part of the project's subsequent Clean Water Act Section 404 permit application process with the Corps. ~~This application process will require consultation with USFWS with regard to potential impacts to any identified federally-listed vernal pool fairy shrimp species.~~

As part of this consultation effort, CSUDH may cause the project's facilities and improvements to avoid impacts to the project's vernal pool complex habitat area, along with a buffer zone. If avoidance is infeasible, CSUDH will cause further consultation to occur with the Corps and USFWS as part of the project's Clean Water Act Section 404 permit application process. As part of that consultation, CSUDH will cause to be implemented any feasible vernal pool mitigation required as part of that regulatory process, including off-setting impacts to the vernal pool complex habitat through mitigation banks, in-lieu fee sites, or permittee-responsible mitigation. ~~However, no further articulation of the vernal pool mitigation is required at this time because no federally-listed fairy shrimp were identified during focused dry season presence/absence surveys, and the lack of suitable on-site conditions.~~

BIO-4B: If the Corps does not take jurisdiction over the northern site, CSUDH will consult with the USFWS through the ESA Section 10 process to determine the potential for impacts to federally-listed vernal pool fairy shrimp species. The USFWS may require additional protocol-level vernal pool branchiopod surveys to confirm absence of federally-listed branchiopod species. CSUDH shall cause such surveys to be prepared as part of the project's Section 10 consultation process.

If federally-listed vernal pool fairy shrimp species are identified during protocol surveys, as part of this consultation effort, CSUDH may cause the project's facilities and improvements to avoid impacts to the project's vernal pool complex habitat area, along with a buffer zone. If avoidance is infeasible, CSUDH will obtain the necessary incidental take permit for impacts to the species/vernal pool complex. Mitigation will be identified in consultation with the USFWS and may include off-setting impacts to the vernal pool complex habitat through mitigation banks, in-lieu fee sites, or permittee-responsible mitigation.

2. Burrowing Owls

BIO-5: Thirty days prior to the commencement of construction, a preconstruction burrowing owl survey shall be performed by walking through the identified suitable habitat and areas within 500 feet of the new facility or improvement impact zone. This shall consist of a single survey with the focused intent of determining whether burrowing owls are still absent from the study area. If no burrowing owls are observed/detected, additional mitigation is not required. If burrowing owls are observed, mitigation measure BIO-6 shall be implemented.

BIO-6: If the species is present outside the breeding season (September 1 through February 28), passive relocation shall be performed by a qualified biologist. No permits are necessary for this work. Prior to passive relocation of the birds from occupied burrows, potentially suitable burrows within the study area shall be collapsed so that the birds being passively relocated do not occupy a nearby burrow. At least 48 hours shall pass between the start of passive relocation and the collapse of the occupied burrows. This methodology shall ensure that the birds are not present.

If the species is found to be present and it is within the breeding season (March 1 through August 31), construction will not occur within 300 feet of the active burrows until it has been confirmed by a qualified biologist that the nesting effort has been completed. At that time, passive relocation can be employed as described above.

3. Raptors and Nesting Birds

BIO-7: In the event that construction of new facilities and improvements involves removal of vegetation occurring between February 1 and September 1, CSUDH shall cause to be retained a qualified biologist to conduct a nesting bird/raptor survey of the project impact area prior to the initiation of construction. The survey shall be conducted no more than three days prior to the initiation of construction to minimize the potential for nesting following the survey and prior to construction. If the biologist detects any active nests within or adjacent to the project impact area (within 150 feet for nesting birds, within 500 feet for raptors), the area(s) supporting bird nests shall be flagged for protection with a buffer determined at the biologist's discretion based on the sensitivity of the species (minimum buffer of 500 feet for raptors). No activities shall occur within the buffer zone until the nests are no longer occupied as determined by the biologist.

Level of Impact after Mitigation

Based on the above analysis, with implementation of the identified mitigation measures, impacts to biological resources would be avoided or minimized to less-than-significant levels.

3.4 Cultural Resources

This section analyzes the potential impacts to historic, archeological, paleontological, and tribal cultural resources associated with the California State University, Dominguez Hills (CSUDH) 2018 Campus Master Plan (Master Plan or proposed project). This section has been prepared based upon a Cultural Resources Analysis prepared by SWCA Environmental Consultants in October 2017, which is included in **Appendix D.1**; and a Built Resources Report prepared by WSP USA, Inc. in June 2018, which is included in **Appendix D.2**.

Environmental Setting

Regulatory Framework

Federal Regulations

National Historic Preservation Act of 1966

Enacted in 1966 and amended most recently in 2014, the National Historic Preservation Act (NHPA; 54 United States Code [USC] section 300101 et seq.) instituted a multifaceted program, administered by the Secretary of the Interior, to encourage sound preservation policies of the nation's cultural resources at the federal, state, and local levels. The NHPA authorized the expansion and maintenance of the National Register of Historic Places (NRHP), established the position of State Historic Preservation Officer, and provided for the designation of State Review Boards. The NHPA also set up a mechanism to certify local governments to carry out the goals of the NHPA, assisted Native American tribes to preserve their cultural heritage, and created the Advisory Council on Historic Preservation (ACHP).

Section 106

Section 106 of the NHPA (54 USC section 306108) states that federal agencies with direct or indirect jurisdiction over federally funded, assisted, or licensed undertakings must take into account the effect of the undertaking on any historic property that is included in or eligible for inclusion in the NRHP, and that the ACHP must be afforded an opportunity to comment, through a process outlined in the ACHP regulations in Title 36 of the Code of Federal Regulations (CFR, Part 800, on such undertakings. The Section 106 process involves identification of significant historic resources within an "area of potential effect [APE]; determination if the undertaking will cause an adverse effect on historic resources; and resolution of those adverse effects through execution of a Memorandum of Agreement." In addition to the ACHP, interested members of the public, including individuals, organizations, and agencies (such as the California Office of Historic Preservation) are provided with opportunities to participate in the process.

The National Register of Historic Places

The National Register of Historic Places was established by the NHPA of 1966 as "an authoritative guide to be used by Federal, State, and local governments, private groups and citizens to identify the Nation's cultural resources and to indicate what properties should be considered for protection from destruction or impairment" (CFR, Title 36, Part 60.2). The NRHP recognizes properties that are significant at the national, state, and local levels. To be eligible for listing in the NRHP, a resource must be significant in American history, architecture, archaeology, engineering, or culture. Districts, sites, buildings, structures, and objects of potential significance must also possess integrity of location, design, setting, materials, workmanship, feeling, and association.

A property is eligible for the NRHP if it is significant under one or more of the following criteria:

- **Criterion A:** It is associated with events that have made a significant contribution to the broad patterns of our history;
- **Criterion B:** It is associated with the lives of persons who are significant in our past;
- **Criterion C:** It embodies the distinctive characteristics of a type, period, or method of construction, or represents the work of a master, or possesses high artistic values, or represents a significant and distinguishable entity whose components may lack individual distinction; and/or
- **Criterion D:** It has yielded, or may be likely to yield, information important in prehistory or history.

Ordinarily cemeteries, birthplaces, or graves of historic figures, properties owned by religious institutions or used for religious purposes, structures that have been moved from their original locations, reconstructed historic buildings, and properties that are primarily commemorative in nature, are not considered eligible for the NRHP, unless they satisfy certain conditions. In general, a resource must be 50 years of age to be considered for the NRHP, unless it satisfies a standard of exceptional importance.

In addition to meeting at least one of these criteria, a property must retain historic integrity, which is defined in National Register Bulletin 15 as the "ability of a property to convey its significance" (National Park Service 1990). In order to assess integrity, the National Park Service recognizes seven aspects or qualities that, considered together, define historic integrity. To retain integrity, a property must possess several, if not all, of these seven qualities, which are defined in the following manner in National Register Bulletin 15:

- **Location:** the place where the historic property was constructed or the place where the historic event occurred;
- **Design:** the combination of elements that create the form, plan, space, structure, and style of a property;
- **Setting:** the physical environment of a historic property;
- **Materials:** the physical elements that were combined or deposited during a particular period of time and in a particular pattern or configuration to form a historic property;

- **Workmanship:** the physical evidence of the crafts of a particular culture or people during any given period in history or prehistory;
- **Feeling:** a property's expression of the aesthetic or historic sense of a particular period of time; and/or

  Association: the direct link between an important historic event or person and a historic property.

State Regulations

The California Office of Historic Preservation, a division of the California Department of Parks and Recreation, is responsible for carrying out the duties described in the California Public Resources Code and maintaining the California Historic Resources Inventory and California Register of Historical Resources (CRHR). The state-level regulatory framework also includes the California Environmental Quality Act (CEQA), which requires the identification and mitigation of substantial adverse impacts that may affect the significance of eligible historical and archaeological resources.

California Environmental Quality Act (CEQA)

CEQA requires a lead agency to analyze whether historic and/or archaeological resources may be adversely impacted by a proposed project. Under CEQA, a "project that may cause a substantial adverse change in the significance of a historic resource is a project that may have a significant effect on the environment" (Pub. Resources Code section 21084.1). Answering this question is a two-part process: first, the determination must be made as to whether the proposed project involves cultural resources. Second, if cultural resources are present, the proposed project must be analyzed for a potential "substantial adverse change in the significance" of the resource.

Historical Resources

According to CEQA Guidelines Section 15064.5(a), for purposes of CEQA, historical resources are:

- A resource listed in, or formally determined eligible for listing in the California Register of Historical Resources (see Pub. Resources Code section 5024.1);
- A resource included in a local register of historical resources, as defined in Section 5020.1(k) of the Public Resources Code, or identified as significant in a historic resources survey meeting the requirements of Section 5024.1(g) of the Public Resources Code; or
- Any object, building, structure, site, area, place, record, or manuscript that the lead agency determines to be eligible for national, state, or local landmark listing; generally, a resource shall be considered by the lead agency to be historically significant (and, therefore, a historic resource under CEQA) if the resource meets the criteria for listing on the California Register of Historical Resources.

Resources nominated to the CRHR must retain enough of their historic character or appearance to convey the reasons for their significance. Resources whose historic integrity (as defined above) does not meet NRHP criteria may still be eligible for listing in the CRHR.

According to CEQA, the fact that a resource is not listed in or determined eligible for listing in the CRHR or is not included in a local register or survey shall not preclude the lead agency from determining that the resource may be an historical resource (Pub. Resources Code section 5024.1). Pursuant to CEQA, a project with an effect that may cause a substantial adverse change in the significance of a historical resource may have a significant effect on the environment (CEQA Guidelines section 15064.5(b)).

The CEQA Guidelines specify that a "substantial adverse change in the significance of an historical resource means physical demolition, destruction, relocation, or alteration of the resource or its immediate surroundings such that the significance of an historical resource would be materially impaired" (CEQA Guidelines section 15064.5). Material impairment occurs when a project alters in an adverse manner or demolishes "those physical characteristics of an historical resource that convey its historical significance and that justify its inclusion" or eligibility for inclusion in the NRHP, CRHR, or local register. In addition, pursuant to CEQA Guidelines Section 15126.2, the "direct and indirect significant effects of the project on the environment shall be clearly identified and described, giving due consideration to both the short-term and long-term effects."

The following guidelines and requirements are of particular relevance to this study's analysis of indirect impacts to historic resources. Pursuant to CEQA Guidelines Section 15378, study of a project under CEQA requires consideration of "the whole of an action, which has the potential for resulting in either a direct physical change in the environment, or a reasonably foreseeable indirect physical change in the environment." CEQA Guidelines Section 15064(d) further defines direct and indirect impacts:

- A direct physical change in the environment is a physical change in the environment which is caused by and immediately related to the project;
- An indirect physical change in the environment is a physical change in the environment which is not immediately related to the project, but which is caused indirectly by the project. If a direct physical change in the environment in turn causes another change in the environment, then the other change is an indirect physical change in the environment; and
- An indirect physical change is to be considered only if that change is a reasonably foreseeable impact which may be caused by the project.

California Register of Historical Resources

Established in 1992 and implemented in 1998, the CRHR is "an authoritative guide in California to be used by state and local agencies, private groups, and citizens to identify the state's historical resources and to indicate what properties are to be protected, to the extent prudent and feasible, from substantial adverse change" (Pub. Resources Code sections 21083.2 and 21084.1). Certain properties, including those listed in or formally determined eligible for listing in the NRHP and California Historical Landmarks numbered 770 and higher, are automatically included in the CRHR. Other properties recognized under the California Points of Historical Interest program, identified as significant in historical resources surveys, or designated by local landmarks programs, may be nominated for inclusion in the CRHR. According to Public Resources Code Section 5024.1(c), a resource, either an individual property or a contributor to a historic district, may be

listed in the CRHR if the State Historical Resources Commission determines that it meets one or more of the following criteria, which are modeled on NRHP criteria:

- **Criterion 1**: It is associated with events that have made a significant contribution to the broad patterns of California's history and cultural heritage;
- **Criterion 2**: It is associated with the lives of persons important in our past;
- **Criterion 3**: It embodies the distinctive characteristics of a type, period, region, or method of construction, or represents the work of an important creative individual, or possesses high artistic values; and/or
- **Criterion 4**: It has yielded, or may be likely to yield, information important in history or prehistory.

Resources nominated to the CRHR must retain enough of their historic character or appearance to convey the reasons for their significance. Resources whose historic integrity does not meet NRHP criteria may still be eligible for listing in the CRHR.

Archaeological Resources

In terms of archaeological resources, which may include 'historical resources' or 'unique archaeological resources' pursuant to Public Resources Code Section 21083.2(g) which defines a unique archaeological resource as 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; and/or
- Is directly associated with a scientifically recognized important prehistoric or historic event or person.

If it can be demonstrated that a proposed project will cause damage to a unique archaeological resource, the lead agency may require reasonable efforts be made to permit any or all of these resources to be preserved in place or left in an undisturbed state. To the extent that they cannot be left undisturbed, mitigation measures are required (Pub. Resources Code sections 21083.2(a)-(c)). CEQA notes that, if an archaeological resource is neither a unique archaeological resource nor an historical resource, the effects of the project on those resources shall not be considered to be a significant effect on the environment (CEQA Guidelines section 15064.5(c)(4)).

Paleontological Resources

The Public Resources Code addresses regulations for paleontological resources. Section 5097.5 restricts the knowing and willful excavation of vertebrate paleontological sites, including fossilized footprints, and prescribes guidelines for violations. Section 30244 requires the adoption

of reasonable mitigation measures where development would adversely impact paleontological resources as identified by the State Historic Preservation Officer.

Protections for paleontological resources are further set forth under CEQA Guidelines Appendix G, which addresses the potential for significant impacts, described as direct or indirect destruction, to paleontological resources, sites or unique geological features.

California State Assembly Bill 52

Assembly Bill 52 of 2014 (AB 52) amended Public Resources Code Section 5097.94 and added Sections 21073, 21074, 21080.3.1, 21080.3.2, 21082.3, 21083.09, 21084.2, and 21084.3.

AB 52 formalizes the lead agency – tribal consultation process, requiring the lead agency to initiate consultation with California Native American groups that are traditionally and culturally affiliated with the project, including tribes that may not be federally recognized. Lead agencies are required to begin consultation prior to the release of a negative declaration, mitigated negative declaration, or environmental impact report. Only tribes who have requested to be notified by the lead agency of a project within the tribe's geographical area and who request consultation within 30 days of receipt of the consultation letter must be included during consultation.

Section 4 of AB 52 adds Section 21074(a)-(b) to the Public Resources Code, which address tribal cultural resources and cultural landscapes. Section 21074(a) defines tribal cultural resources as either of the following:

- Sites, features, places, cultural landscapes, sacred places, and objects with cultural value to a California Native American tribe that are either of the following:
  - Included or determined to be eligible for inclusion in the California Register of Historical Resources; or
  - Included in a local register of historical resources as defined in subdivision (k) of Section 5020.1; and
- A resource determined by the lead agency, in its discretion and supported by substantial evidence, to be significant pursuant to criteria set forth in subdivision (c) of Section 5024.1. In applying the criteria set forth in subdivision (c) of Section 5024.1 for the purposes of this paragraph, the lead agency shall consider the significance of the resource to a California Native American tribe.

Section 1(a)(9) of AB 52 establishes that "a substantial adverse change to a tribal cultural resource has a significant effect on the environment." Effects on tribal cultural resources should be considered under CEQA. Section 6 of AB 52 adds Section 21080.3.2 to the Public Resources Code, which states that parties may propose mitigation measures "capable of avoiding or substantially lessening potential significant impacts to a tribal cultural resource or alternatives that would avoid significant impacts to a tribal cultural resource." Further, if a California Native American tribe requests consultation regarding project alternatives, mitigation measures, or significant effects to tribal cultural resources, the consultation shall include those topics (Pub. Resources Code section 21080.3.2(a)). The environmental document and the mitigation monitoring and reporting program

(where applicable) shall include any mitigation measures that are adopted (Pub. Resources Code section 21082.3(a)).

Treatment of Human Remains

The disposition of burials falls first under the general prohibition on disturbing or removing human remains under California Health & Safety Code (CHSC) Section 7050.5. More specifically, remains suspected to be Native American are addressed in CEQA Guidelines Section 15064.5(d)-(e); Public Resources Code Section 5097.98 also illustrates the process to be followed in the event that remains are discovered. If human remains are discovered during construction, no further disturbance to the site shall occur, and the County Coroner must be notified (CEQA Guidelines section 15064.5(e); Pub. Resources Code 5097.98).

Existing Conditions

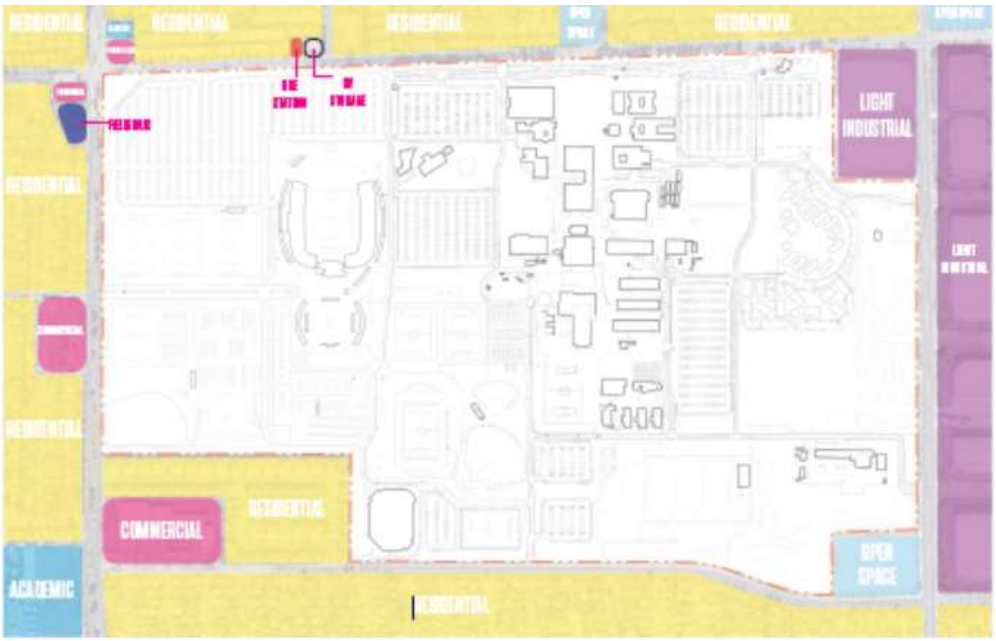
Project Site

The CSUDH 344-acre campus is located within the City of Carson, in the County of Los Angeles. **Figure 3.4-1** is an aerial photograph of the current campus, bounded on the north by Victoria Street, on the south by University Avenue, on the west by Avalon Boulevard, and on the east by Central Avenue. **Figure 3.4-1** also shows the area of the campus leased to StubHub Center's parent company, Anchutz Entertainment Group (AEG), for the StubHub Center — an athletics and entertainment venue for soccer, tennis, track and field, and cycling, including the 27,000-seat stadium and associated parking.

Figure 3.4-1
Aerial Photograph of CSU Dominguez Hills Campus, 2016

The area surrounding the CSUDH campus is comprised primarily of existing residential development on the north across from Victoria Street; on the south across from University Avenue; and on the west across from Avalon Boulevard. Except for the existing Pueblo Dominguez student housing on the eastern side of the campus comprising 649 beds and associated parking, significant portions of the east side campus are underutilized and available for development. Light industrial development is to the northeast and to the east across from Central Avenue. **Figure 3.4-2** illustrates existing land uses surrounding the CSUDH campus.

Figure 3.4-2
Surrounding Land Uses



Since its inception, the CSUDH campus has been planned to accommodate 20,000 full-time equivalent students (FTES). This target student capacity remains the primary goal under the Master Plan. At this time, the total existing campus physical capacity with all of its classrooms, laboratories, and other instructional space is at a level that will support approximately 11,000 FTES. The 2018 Guidelines make clear, however, that a number of the buildings on campus have reached the end of their useful life due to their age or condition. Further, as the student population increases to 20,000 FTES, the campus must add additional space to accommodate the increase in the number of students.

Ethnographic, Archaeological, and Historical Background

A summary of the ethnographic, archaeological, and historic background of the project site and surrounding areas is provided below.[1]

[1] Ethnography refers to a branch of anthropology that deals with the scientific description of individual cultures.

Ethnographic Background

The project site is in an area historically occupied by the Gabrielino/Tongva (Bean and Smith 1978:538; Kroeber 1925: Plate 57). Surrounding native groups include the Chumash and Tatataviam/Alliklik to the north, the Serrano to the east, and the Luiseño/Juaneño to the south. There is well-documented interaction between the Gabrielino and many of their neighbors in the form of intermarriage and trade.

The name "Gabrielino" (sometimes spelled Gabrieleno or Gabrieleño) denotes those people who were administered by the Spanish from Mission San Gabriel. This group is now considered a regional dialect of the Gabrielino language, along with the Santa Catalina Island and San Nicolas Island dialects (Bean and Smith 1978:538). In the post-European contact period, Mission San Gabriel included natives of the greater Los Angeles area, as well as members of surrounding groups such as Kitanemuk, Serrano, and Cahuilla. There is little evidence that the people we call Gabrielino had a broad term for their group (Dakin 1978:222); rather, they identified themselves as an inhabitant of a specific community with locational suffixes (e.g., a resident of Yaanga was called a Yabit, much the same way that a resident of New York is called a New Yorker; Johnston 1962:10).

Native words suggested as labels for the broader group of Native Americans in the Los Angeles region include Tongva (or Tong-v; Merriam 1955:7–86) and Kizh (Kij or Kichereno; Heizer 1968:105), although there is evidence that these terms originally referred to local places or smaller groups of people within the larger group that we now call Gabrielino. Nevertheless, many present-day descendants of these people have taken on Tongva as a preferred group name because it has a native rather than Spanish origin (King 1994:12). Thus, the term Gabrielino/Tongva is used in the remainder of this report to designate native people of the Los Angeles Basin and their descendants.

The Gabrielino/Tongva subsistence economy was centered on gathering and hunting. The surrounding environment was rich and varied, and the tribe exploited mountains, foothills, valleys, deserts, riparian, estuarine, and open and rocky coastal eco-niches. Like that of most native Californians, acorns were the staple food (an established industry by the time of the early Intermediate period). Inhabitants supplemented acorns with the roots, leaves, seeds, and fruits of a variety of flora (e.g., islay, cactus, yucca, sages, and agave). Freshwater and saltwater fish, shellfish, birds, reptiles, and insects, as well as large and small mammals, were also consumed (Bean and Smith 1978:546; Kroeber 1925:631–632; McCawley 1996:119–123, 128–131).

The Gabrielino/Tongva used a variety of tools and implements to gather and collect food resources. These included the bow and arrow, traps, nets, blinds, throwing sticks and slings, spears, harpoons, and hooks. Groups residing near the ocean used oceangoing plank canoes and tule balsa canoes for fishing, travelling, and trading between the mainland and the Channel Islands (McCawley 1996:7). Gabrielino/Tongva people processed food with a variety of tools, including hammer stones and anvils, mortars and pestles, manos and metates, strainers, leaching baskets and bowls, knives, bone saws, and wooden drying racks. Food was consumed from a variety of vessels. Catalina Island steatite was used to make ollas and cooking vessels (Blackburn 1963; Kroeber 1925:629; McCawley 1996:129–138).

At the time of Spanish contact, the basis of Gabrielino/Tongva religious life was the Chinigchinich cult, centered on the last of a series of heroic mythological figures. Chinigchinich gave instruction on laws and institutions, and also taught the people how to dance, the primary religious act for this society. He later withdrew into heaven, where he rewarded the faithful and punished those who disobeyed his laws (Kroeber 1925:637–638). The Chinigchinich religion seems to have been relatively new when the Spanish arrived. It was spreading south into the southern Takic groups even as Christian missions were being built and may represent a mixture of native and Christian belief and practices (McCawley 1996:143–144).

Deceased Gabrielino/Tongva were either buried or cremated, with inhumation more common on the Channel Islands and the neighboring mainland coast, and cremation predominating on the remainder of the coast and in the interior (Harrington 1942; McCawley 1996:157). Remains were buried in distinct burial areas, either associated with villages or without apparent village association (Altschul et al. 2007). Cremation ashes have been found in archaeological contexts buried within stone bowls and in shell dishes (Ashby and Winterbourne 1966:27), as well as scattered among broken ground stone implements (Cleland et al. 2007). Archaeological data such as these correspond with ethnographic descriptions of an elaborate mourning ceremony that included a variety of offerings, including seeds, stone grinding tools, otter skins, baskets, wood tools, shell beads, bone and shell ornaments, and projectile points and knives. Offerings varied with the sex and status of the deceased (Dakin 1978:234–365; Johnston 1962:52–54; McCawley 1996:155–165).

Archaeological Background

Numerous chronological sequences have been devised to aid in understanding cultural changes within southern California. Building on early studies and focusing on data synthesis, Wallace (1955, 1978) developed a prehistoric chronology for the southern California coastal region that is still widely used today and is applicable to near-coastal and many inland areas. Four periods are presented in Wallace's prehistoric sequence: Early Man, Milling Stone, Intermediate, and Late Prehistoric. Although Wallace's (1955) synthesis initially lacked chronological precision due to a paucity of absolute dates (Moratto 1984:159), this situation has been alleviated by the availability of thousands of radiocarbon dates that have been obtained by southern California researchers over the last three decades (Byrd and Raab 2007:217). Several revisions have been made to Wallace's (1955) synthesis using radiocarbon dates and projectile point assemblages (e.g., Koerper and Drover 1983; Mason and Peterson 1994; Koerper et al. 2002). The summary of prehistoric chronological sequences for southern California coastal and near-coastal areas presented below is a composite of information in Wallace (1955) and Warren (1968) as well as more recent studies, including Koerper and Drover (1983).

Horizon I - Early Man (ca. 10,000 – 6,000 B.C.)

When Wallace defined the Horizon I (Early Man) period in the mid-1950s, there was little evidence of human presence on the southern California coast prior to 6000 B.C. Archaeological work in the intervening years has identified numerous pre-8,000 B.C. sites, both on the mainland coast and the Channel Islands (e.g., Erlandson 1991; Johnson et al. 2002; Moratto 1984; Rick et al. 2001:609). The earliest accepted dates for occupation are from two of the northern Channel Islands, located off the coast of Santa Barbara. On San Miguel Island, Daisy Cave clearly establishes the presence

of people in this area about 10,000 years ago (Erlandson 1991:105). On Santa Rosa Island, human remains have been dated from the Arlington Springs site to approximately 13,000 years ago (Johnson et al. 2002). Present-day Orange and San Diego Counties contain several sites dating to 9,000 to 10,000 years ago (Byrd and Raab 2007:219; Macko 1998a:41; Mason and Peterson 1994:55–57; Sawyer and Koerper 2006).

Recent data from Horizon I sites indicate that the economy was a diverse mixture of hunting and gathering, with a major emphasis on aquatic resources in many coastal areas (e.g., Jones et al. 2002) and on Pleistocene lakeshores in eastern San Diego County (see Moratto 1984:90-92). Although few Clovis-like or Folsom-like fluted points have been found in southern California (e.g., Dillon 2002; Erlandson et al. 1987), it is generally thought that the emphasis on hunting may have been greater during Horizon I than in later periods. Common elements in many sites from this period, for example, include leaf-shaped bifacial projectile points and knives, stemmed or shouldered projectile points, scrapers, engraving tools, and crescents (Wallace 1978:26-27). Subsistence patterns shifted around 6,000 B.C. coincident with the gradual desiccation associated with the onset of the Altithermal climatic regime, a warm and dry period that lasted for about 3,000 years. After 6,000 B.C., a greater emphasis was placed on plant foods and small animals.

Horizon II - Milling Stone (6,000–3,000 B.C.)

The Milling Stone Horizon of Wallace (1955, 1978) and Encinitas Tradition of Warren (1968) (6,000-3,000 B.C.) are characterized by subsistence strategies centered on collecting plant foods and small animals. Food procurement activities included hunting small and large terrestrial mammals, sea mammals, and birds; collecting shellfish and other shore species; near-shore fishing with barbs or gorges; the processing of yucca and agave; and the extensive use of seed and plant products (Kowta 1969; Reinman 1964). The importance of the seed processing is apparent in the dominance of stone grinding implements in contemporary archaeological assemblages; namely, milling stones (metates and slabs) and handstones (manos and mullers). Milling stones occur in large numbers for the first time during this period and are more numerous still near the end of this period. Recent research indicates that Milling Stone Horizon food procurement strategies varied in both time and space, reflecting divergent responses to variable coastal and inland environmental conditions (Byrd and Raab 2007:220).

Milling Stone Horizon sites are common in the southern California coastal region between Santa Barbara and San Diego and at many inland locations, including the Prado Basin in western Riverside County and the Pauma Valley in northeastern San Diego County (e.g., Herring 1968; Langenwalter and Brock 1985; Sawyer and Brock 1999; Sutton 1993; True 1958). Wallace (1955, 1978) and Warren (1968) relied on several key coastal sites to characterize the Milling Stone period and Encinitas Tradition, respectively. These include the Oak Grove Complex in the Santa Barbara region, Little Sycamore in southwestern Ventura County, Topanga Canyon in the Santa Monica Mountains, and La Jolla in San Diego County. The well-known Irvine site (CA-ORA-64) has occupation levels dating between ca. 6,000 and 4,000 B.C. (Drover et al. 1983; Macko 1998b).

Stone chopping, scraping, and cutting tools made from locally available raw material are abundant in Milling Stone/Encinitas deposits. Less common are projectile points, which are typically large and leaf-shaped, and bone tools such as awls. Items made from shell, including beads, pendants, and abalone dishes, are generally rare. Evidence of weaving or basketry is present at a few sites.

Kowta (1969) attributes the presence of numerous scraper-planes in Milling Stone sites to the preparation of agave or yucca for food or fiber. The mortar and pestle, associated with pounding foods such as acorns, were first used during the Milling Stone Horizon (Wallace 1955, 1978; Warren 1968).

Cogged stones and discoidals are diagnostic Milling Stone period artifacts, and most specimens have been found within sites dating between 4,000 and 1,000 B.C. (Moratto 1984:149). The cogged stone is a ground stone object with gear-like teeth on its perimeter. Discoidals are similar to cogged stones, differing primarily in their lack of edge modification. Discoidals are found in the archaeological record subsequent to the introduction of the cogged stone. Cogged stones and discoidals are often purposefully buried and are found mainly in sites along the coastal drainages from southern Ventura County southward, with a few specimens inland at Cajon Pass, and heavily in Orange County (Dixon 1968:63; Moratto 1984:149). These artifacts are often interpreted as ritual objects (Eberhart 1961:367; Dixon 1968:64-65), although alternative interpretations (such as gaming stones) have also been put forward (e.g., Moriarty and Broms 1971).

Characteristic mortuary practices of the Milling Stone period or Encinitas Tradition include extended and loosely flexed burials, some with red ochre, and a few grave goods such as shell beads and milling stones interred beneath cobble or milling stone cairns. “Killed” milling stones, exhibiting holes, may occur in the cairns. Reburials are common in the Los Angeles County area, with north-oriented flexed burials common in Orange and San Diego Counties (Wallace 1955, 1978; Warren 1968).

Koerper and Drover (1983) suggest that Milling Stone period sites represent evidence of migratory hunters and gatherers who used marine resources in the winter and inland resources for the remainder of the year. Subsequent research indicates greater sedentism than previously recognized. Evidence of wattle-and-daub structures and walls has been identified at several sites in the San Joaquin Hills and Newport Coast area (Mason et al. 1991, 1992, 1993; Koerper 1995; Strudwick 2005; Sawyer 2006), while numerous early house pits have been discovered on San Clemente Island (Byrd and Raab 2007:221-222). This architectural evidence and seasonality studies suggest semi-permanent residential base camps that were relocated seasonally (de Barros 1996; Koerper et al. 2002; Mason et al. 1997) or permanent villages from which a portion of the population left at certain times of the year to exploit available resources (Cottrell and Del Chario 1981).

Horizon III - Intermediate (3,000 B.C. – A.D. 500)

Following the Milling Stone Horizon, Wallace’s Intermediate Horizon and Warren’s Campbell Tradition in Santa Barbara, Ventura, and parts of Los Angeles Counties, date from approximately 3,000 B.C.-A.D. 500 and are characterized by a shift toward a hunting and maritime subsistence strategy, along with a wider use of plant foods. The Campbell Tradition (Warren 1968) incorporates David B. Rogers’ (1929) Hunting Culture and related expressions along the Santa Barbara coast. In the San Diego region, the Encinitas Tradition (Warren 1968) and the La Jolla Culture (Moriarty 1966; M. Rogers 1939, 1945) persist with little change during this time.

During the Intermediate Horizon and Campbell Tradition, there was a pronounced trend toward greater adaptation to regional or local resources. For example, an increasing variety and abundance of fish, land mammal, and sea mammal remains are found in sites along the California coast during

this period. Related chipped stone tools suitable for hunting are more abundant and diversified, and shell fishhooks become part of the tool kit during this period. Larger knives, a variety of flake scrapers, and drill-like implements are common during this period. Projectile points include large side-notched, stemmed, and lanceolate or leaf-shaped forms. Koerper and Drover (1983) consider Gypsum Cave and Elko series points, which have a wide distribution in the Great Basin and Mojave deserts between ca. 2,000 B.C. and A.D. 500, to be diagnostic of this period. Bone tools, including awls, were more numerous than in the preceding period, and the use of asphaltum adhesive was common.

Mortars and pestles became more common during this period, gradually replacing manos and metates as the dominant milling equipment. Hopper mortars and stone bowls, including steatite vessels, appeared in the tool kit at this time as well. This shift appears to correlate with the diversification in subsistence resources. Many archaeologists believe this change in milling stones signals a shift away from the processing and consuming of hard seed resources to the increasing importance of the acorn (e.g., Glassow et al. 1988; True 1993). It has been argued that mortars and pestles may have been used initially to process roots (e.g., tubers, bulbs, and corms associated with marshland plants), with acorn processing beginning at a later point in prehistory (Glassow 1997:86) and continuing to European contact.

Characteristic mortuary practices during the Intermediate Horizon and Campbell Tradition included fully flexed burials, placed face down or face up, and oriented toward the north or west (Warren 1968:2-3). Red ochre was common, and abalone shell dishes infrequent. Interments sometimes occurred beneath cairns or broken artifacts. Shell, bone, and stone ornaments, including charmstones, were more common than in the preceding Encinitas Tradition. Some later sites include Olivella shell and steatite beads, mortars with flat bases and flaring sides, and a few small points. The broad distribution of steatite from the Channel Islands and obsidian from distant inland regions, among other items, attest to the growth of trade, particularly during the later part of this period. Recently, Raab and others (Byrd and Raab 2007:220-221) have argued that the distribution of Olivella grooved rectangle (OGR) beads marks “a discrete sphere of trade and interaction between the Mojave Desert and the southern Channel Islands.

Horizon IV - Late Prehistoric (A.D. 500–Historic Contact)

In the Late Prehistoric Horizon (Wallace 1955, 1978), which lasted from the end of the Intermediate (ca. A.D. 500) until European contact, there was an increase in the use of plant food resources in addition to an increase in land and sea mammal hunting. There was a concomitant increase in the diversity and complexity of material culture during the Late Prehistoric, demonstrated by more classes of artifacts. The recovery of a greater number of small, finely chipped projectile points, usually stemless with convex or concave bases, suggests an increased use of the bow and arrow rather than the atlatl (spear thrower) and dart for hunting. Other items include steatite cooking vessels and containers, the increased presence of smaller bone and shell circular fishhooks, perforated stones, arrow shaft straighteners made of steatite, a variety of bone tools, and personal ornaments made from shell, bone, and stone. There is also an increased use of asphalt for waterproofing and as an adhesive.

Many Late Prehistoric sites contain beautiful and complex objects of utility, art, and decoration. Ornaments include drilled whole venus clam (*Chione* spp.) and drilled abalone (*Haliotis* spp.).

Steatite effigies become more common, with scallop (*Pecten* spp. and *Argopecten* spp.) shell rattles common in middens. Mortuary customs are elaborate and include cremation and interment with abundant grave goods. By A.D. 1,000, fired clay smoking pipes and ceramic vessels began to appear at some sites (Drover 1971, 1975; Meighan 1954; Warren and True 1984). The scarcity of pottery in coastal and near-coastal sites implies ceramic technology was not well developed in that area, or that ceramics were obtained by trade with neighboring groups to the south and east. The lack of widespread pottery manufacture is usually attributed to the high quality of tightly woven and watertight basketry that functioned in the same capacity as ceramic vessels.

During this period, there was an increase in population size accompanied by the advent of larger, more permanent villages (Wallace 1955:223). Large populations and, in places, high population densities are characteristic, with some coastal and near-coastal settlements containing as many as 1,500 people. Many of the larger settlements were permanent villages in which people resided year-round. The populations of these villages may have also increased seasonally.

In Warren's (1968) cultural ecological scheme, the period between A.D. 500 and European contact is divided into three regional patterns. The Chumash Tradition is present mainly in the region of Santa Barbara and Ventura Counties; the Takic or Numic Tradition is present in the Los Angeles, Orange, and western Riverside Counties region; and the Yuman Tradition is present in the San Diego region. The seemingly abrupt changes in material culture, burial practices, and subsistence focus at the beginning of the Late Prehistoric period are thought to be the result of a migration to the coast of peoples from inland desert regions. In addition to the small triangular and triangular side-notched points similar to those found in the desert regions in the Great Basin and Lower Colorado River, Colorado River pottery and the introduction of cremation in the archaeological record are diagnostic of the Yuman Tradition in the San Diego region. This combination certainly suggests a strong influence from the Colorado Desert region.

In Los Angeles, Orange, and western Riverside Counties, similar changes (introduction of cremation, pottery, and small triangular arrow points) are thought to be the result of a Takic migration to the coast from inland desert regions. This Takic or Numic Tradition was formerly referred to as the "Shoshonean wedge" or "Shoshonean intrusion" (Warren 1968). This terminology, used originally to describe a Uto-Aztecan language group, is generally no longer used to avoid confusion with ethnohistoric and modern Shoshonean groups who spoke Numic languages (Heizer 1978:5; Shipley 1978:88, 90). Modern Gabrielino/Tongva, Juaneño, and Luiseño in this region are considered the descendants of the prehistoric Uto-Aztecan, Takic-speaking populations that settled along the California coast during this period or perhaps somewhat earlier.

Historical Background

The post-contact history of California is divided into three periods: the Spanish period (1769–1822), the Mexican period (1822–1848), and the American period (1848–present). Each of these periods is briefly described below.

Spanish Period (1769–1822)

The first Europeans to observe what became southern California were members of the 1542 expedition of Juan Rodriguez Cabrillo. Cabrillo and other early explorers sailed along the coast and made limited expeditions into Alta (upper) California between 1529 and 1769. Although Spanish, Russian, and British explorers briefly visited Alta California during this nearly 250-year span, they did not establish permanent settlements (Starr 2007).

Gaspar de Portolá and Franciscan Father Junipero Serra established the first Spanish settlement in Alta California at San Diego in 1769. Mission San Diego de Alcalá was the first of 21 missions built by the Spanish between 1769 and 1823. Portolá continued north, reaching San Francisco Bay on October 31, 1769. On September 4, 1781, twelve years after the Portolá's initial visit, a dozen families from Sonora, Mexico, founded El Pueblo de la Reina de los Angeles de la Porciúncula under the specific directions of Governor Felipe de Neve (Robinson 1979:238). The site chosen for the new pueblo was elevated on a broad terrace one-half mile west of the river (Gumprecht 1999:42). As a planned pueblo (one of only three in California), four square leagues (about 28 square miles) of land were set aside for the settlement (Robinson 1979:34). The area's rich, well-watered soils created an ideal locale for a town meant to supply livestock and feed to the presidios of San Diego and Santa Barbara and to serve as a home for retired Spanish soldiers. The soldiers were given vast tracts of land to start farms and ranches. To expand their herds of cattle, colonists enlisted the labor of the surrounding Indian population (Engelhardt 1927b:9). By 1786, the flourishing pueblo attained self-sufficiency, and funding by the Spanish government ceased. Fed by a steady supply of water and an expanding irrigation system, agriculture and ranching grew, and by the early 1800s the pueblo produced 47 cultigens (Gumprecht 1999).

The process of converting the local Native American population to Christianity through baptism and relocation to mission grounds began in this region by the Franciscan padres at the San Gabriel Mission, which was established in 1771 (Engelhardt 1927a). The San Fernando Mission was founded 26 years later, its location chosen as a stopping point between the San Gabriel and San Buenaventura missions (Engelhardt 1927b). The majority of the Native Americans from the Los Angeles Basin were persuaded to settle in the vicinity of the two missions. These included the Eastern Gabrielino of the plains as far south as the Santa Ana River and west to the Los Angeles River. The padres also proselytized the Serrano of the San Gabriel and San Bernardino mountains, as well as the Vanyume Serrano of the Mojave Desert, many of the western Cahuilla in the Coachella and San Jacinto valleys, some Luiseño of the San Jacinto Valley, and Western Gabrielino of the plains west of the Los Angeles River, San Fernando Valley and the southern Channel Islands. The missions were charged with administering to the Indians within their areas. Although mission life gave the Indians skills needed to survive in their rapidly changing world, the close quarters and regular contact with Europeans transmitted diseases for which they had no immunity, decimating their population (McCawley 1996).

Mexican Period (1822–1848)

After the end of the Mexican Revolution against the Spanish crown (1810–1821), all Spanish holdings in North America (including both Alta and Baja California) became part of the new Mexican republic. Alta California became a Mexican state in 1821, and Los Angeles selected its first city council the following year. Independence and the removal of economic restrictions

attracted settlers to Los Angeles, and the town slowly grew in size, expanding to the south and west. The population nearly doubled during this period, rising from 650 to 1,250 between 1822 and 1845 (Weber 1982:226). Until 1832, Los Angeles was essentially a military post, with all able-bodied males listed on the muster rolls and required to perform guard duty and field duty whenever circumstances required (Los Angeles County 1963). The Mexican Congress elevated Los Angeles from pueblo to city status in 1835, declaring it the new state capital (Robinson 1979:238-239).

The authority of the California missions gradually declined, culminating with their secularization in 1834. Although the Mexican government directed that each mission's lands, livestock, and equipment be divided among its neophytes, the majority of these holdings quickly fell into non-Indian hands. Mission buildings were abandoned and quickly fell into decay. If mission life was difficult for Native Americans, secularization was worse. After two generations of dependence upon the missions, they were suddenly disenfranchised. After secularization, "nearly all of the Gabrielinos went north while those of San Diego, San Luis and San Juan overran this county, filling the Angeles and surrounding ranchos with more servants than were required" (Reid 1926:104).

Former mission lands were quickly divided and granted to private citizens for use as agricultural and pastoral land. Most of the land grants to Mexican citizens in California (Californios) were located inland, a policy intended to increase the population away from the coastal areas where the Spanish settlements were concentrated (Reid 1926).

After years of surreptitious commerce, the first party of American immigrants arrived in Los Angeles in 1841, including William Workman and John Rowland, who soon became influential landowners. As the possibility of a takeover of California by the United States loomed large in the 1840s, the Mexican government increased the number of land grants in an effort to keep the land in Mexican hands (Wilkman and Wilkman 2006:14-17). Governor Pío Pico and his predecessors made more than 600 rancho grants between 1833 and 1846, putting most of the state's lands into private ownership for the first time (Gumprecht 1999).

American Period (1848–Present)

The United States took control of California in 1846, seizing Monterey, San Francisco, San Diego, and Los Angeles with little resistance. Los Angeles soon slipped from American control, however, and needed to be retaken in 1847. Approximately 600 United States sailors, marines, Army dragoons, and mountain men converged under the leadership of Colonel Stephen W. Kearney and Commodore Robert F. Stockton in early January of that year to challenge the California resistance, which was led by General Jose Maria Flores. The American party scored a decisive victory over the Californios in the Battle of the Rio San Gabriel and at the Battle of La Mesa the following day, effectively ending the war and opening the door for increased American immigration (Harlow 1992:193-218).

Hostilities officially ended with the signing of the Treaty of Guadalupe Hidalgo in 1848, in which the United States agreed to pay Mexico $15 million for the conquered territory, including California, Nevada, Utah, and parts of Colorado, Arizona, New Mexico, and Wyoming and

representing nearly half of Mexico's pre-1846 holdings. California joined the Union in 1850 as the 31st state (Wilkman and Wilkman 2006:15).

While the discovery of gold in northern California in 1848 gave rise to the California Gold Rush, Los Angeles was where the first California gold was found. Francisco López had found several gold nuggets clinging to wild onion roots near the San Fernando Mission in 1842 (Guinn 1977; Workman 1935:26). The big strike at Sutter's Creek seven years later led to an enormous influx of American citizens in the 1850s and 1860s, and these "forty-niners" rapidly displaced the old rancho families. One year after discovering gold, nearly 90,000 people journeyed to the California gold fields. With most miners drawn to central California by its well-known strikes, Los Angeles attracted people who were largely peripheral to the gold rush, including a healthy contingent of gamblers (Robinson 1979:242).

Los Angeles was the center of a vibrant cattle industry throughout the nineteenth century, being surrounded by miles of ranchos. The city served as a trading hub for southern California's "cow counties," and at mid-century the plaza was lined with the shops and town homes of ranch owners (Robinson 1979:243). In 1835, Los Angeles County had approximately 75,000-100,000 cattle, 1,700 horses, and 13,000 sheep and produced about 4,000 bushels of cereal and legumes each year (Los Angeles County 1963). Agricultural interests were gradually supplanted by more urban industries, with about a third of Los Angeles residents supporting themselves with non-agricultural pursuits by 1836 (Weber 1982:226). By 1853, the population of the state exceeded 300,000. Thousands of settlers and immigrants continued to pour into the state, particularly after the completion of the transcontinental railroad in 1869.

When the Southern Pacific Railroad extended its line from San Francisco to Los Angeles in 1876, it signaled the beginning of Los Angeles' first major growth spurt. Newcomers poured into the city, nearly doubling the population between 1870 and 1880. The completion of the second transcontinental line, the Santa Fe, took place in 1886, causing a price war which drove fares to an unprecedented low, including a promotional one-way ticket from Kansas City that sold for one dollar. More settlers continued to head west, and the demand for real estate skyrocketed. As real estate prices soared, land that had been farmed for decades outlived its agricultural value and was sold to become residential communities. The large ranchos that surrounded the city were each annexed, subdivided, and developed in turn. Los Angeles' population more than quadrupled in a decade, from 11,183 in 1880 to 50,395 by 1890 (Meyer 1981:45; Robinson 1979; Wilkman and Wilkman 2006:33-34). During the first three decades of the twentieth century, more than two million people moved to Los Angeles County, transforming it from a largely agricultural region into a major metropolitan area (Gumprecht 1999).

Local History

An ethnographic map depicting Native American village locations near the various course of the Los Angeles River (Gumprecht 2001:30) show that project site is located to the west of the Los Angeles River and in the vicinity of, but not directly adjacent to, several mapped unnamed village locations, including one on the north side of what appears to be Dominguez Hill and south of Compton Creek. The closest named villages include Suangna on the western side of the Los Angeles River and Ahaungna, and Tibahangna on the eastern side. The village of Suangna, also called Swaanga meaning junco [rush], was a large, populous village with a described location on

a plain near a marsh (McCawley 1996:66). The exact location of the village was unknown, but San Gabriel Mission records indicates that the village was occupied up to 1813 (McCawley 1996:66). The village of Ahuangna, also called 'Ahwaanga, and Tibahangna, also called Tevaaxa'anga, were founded by refugees from the San Gabriel area (McCawley 1996:69). An additional place name attributed to Tevaaxa'anga is Tibajabit, meaning either 'in the old house' or 'there from the house' (McCawley 1996:59). Another ethnographic map showing Native American settlements used for the recruitment of neophytes to the San Fernando and San Gabriel Missions based on King (2004:21) show the project site near the village of Amupubit. The village of Tibajabit is mapped to the east of a river, in the similar location to Tibahangna, and the village of Soábit is mapped west of the river, in the similar location to Suangna. A review of the Kirkman-Harriman pictorial and historical map of Los Angeles County depict a Native American village to the northwest on the opposite side of a natural wetland area.

Historic maps depict the project site within the San Pedro-Dominguez Land Grant and was part of the portion of the Rancho San Pedro allocated to Manuel Dominguez. Specifically, the project site falls within the 500 acres belonging to Victoria D. De Carson and partially incorporates some of the acreage belonging to Maria De Los Reyes. On this historic map, a house is mapped within the De Carson parcel adjacent to a small lake but outside the mapped project site. Historic topographic maps from 1896 do not indicate the presence of any structures within the project site. A 1926 map of the Dominguez Oil Field shows the project site within boundary of the Union Oil Company of California parcel. Within the northeast portion of the project site, several oil rigs were mapped around Dominguez Hill, including two completed, productive rigs, two uncompleted, idle rigs, and one uncompleted, abandoned rig belonging to the General Petroleum Corporation of California. ~~Historic aerial photographs indicate that the site began to be developed between 1963 and 1972 and reached its current state by 2005.~~

In 1960, following increasing growth in Southern California and a demand for higher education, Governor Edmund G. "Pat" Brown allocated funds to develop a state college in Los Angeles County's South Bay region. Originally called South Bay State College, the new school was planned to be located in Palos Verdes on a site overlooking the ocean. The proposed South Bay State College aimed to cater to the area's affluent and growing population, envisioning itself as a California version of an Ivy League institution.

In 1964, Southern California architect A. Quincy Jones of the firm Jones & Emmons was hired to design the proposed campus at Palos Verdes by the college's design team led by Leo F. Cain. As planning for the campus continued, Cain moved forward with plans to open the university in a temporary location, and by 1965, California State College at Palos Verdes became the eighteenth campus within the state university system despite only enrolling seventy-five students when it opened its doors that January. Enrollment fell far short of the four hundred enrollees expected. A small faculty, including Cain, taught the first classes in a Rolling Hills Estate bank building.

In the summer of 1965, the racially charged Watts riots brought to the forefront tensions over policing, segregation, transportation, jobs, and education. Meanwhile, land prices continued to rise on the Palos Verdes peninsula, leading the California State College and University Board of Trustees to choose another location for the campus rather than establishing a permanent campus in Palos Verdes. As a response to both, Governor Brown supported efforts to relocate the campus inland and nearer to minority communities comprising South Los Angeles. Ultimately, Dominguez

Hills was chosen as the new location for the school, and in 1966, the school changed its name to California State College, Dominguez Hills. A 346-acre tract in Carson, surrounded at the time by oil wells, farmland, and tract housing, was chosen as the location for the new school. The slow pace of construction and lagging enrollment led Governor Ronald Reagan to recommend closure of the new school after he took office in 1967. Instead, Leo Cain was able to secure construction of the school at its current location. Cain ultimately became its first president.

Around 1964, A. Quincy Jones began drafting a master plan for the new school in Carson. The plan located academic buildings in close proximity to one another, relating the campus buildings to the library, and encouraging students to cross through buildings to reach others. In general, buildings for the campus designed during the original master plan era (1964-1979) featured similar design tenets: concrete construction with overhanging coffered ceilings, a Modernist design aesthetic with entrances at a central or mezzanine level, manipulation of the landscape to create sunken gardens and courtyard spaces at the ground floors, and use of pedestrian circulation patterns that allowed students to walk through and around campus buildings.

The first completed campus buildings, part of a group of buildings known as the Small College Complex, were constructed in 1968. (These are the only buildings that are currently fifty years of age.) The remaining Small College Complex buildings were completed in 1969. Featuring multiple one-story buildings, the Small College Complex provided classroom and college administration spaces for the over 2,600 students who enrolled at Dominguez Hills in the fall of 1970. Meanwhile, construction began in earnest for the larger campus buildings, including the Educational Resources Center (later named the Leo F. Cain Library), the Social and Behavioral Sciences building, and the Natural Sciences and Mathematics building, all of which were completed by 1973 (Figure 1). By the mid-1970s, the second phase of campus development was underway and included the student health center, Humanities and Fine Arts building (later named LaCorte Hall), the University Theatre, and the University Gymnasium.

In 1976, Leo Cain retired and was succeeded by Donald R. Gerth, who oversaw the school's transition to a university after meeting certain enrollment and degree criteria. By the end of the decade, enrollment reached over 7,000. Gerth was also instrumental in bringing the 1984 Los Angeles Summer Olympics to Dominguez Hills, which included construction of a velodrome (no longer extant) for track cycling events. Dominguez Hills has grown to become one of the most diverse universities in the state system with enrollment exceeding 12,000 students and conferring degrees to a substantial number of black and Latino students.

Sacred Lands File Search and Native American Consultation

In conformance with AB 52, CSUDH provided formal, written notification of the proposed project to the Gabrieleno Tongva San Gabriel Band of Mission Indians, which was the only California Native American Tribe which had previously requested to be informed by CSUDH through formal notification of proposed projects involving CSUDH. The formal written notification provided by CSUDH was sent to the Gabrieleno Tongva San Gabriel Band of Mission Indians on May 12, 2017. Because the Gabrieleno Tongva San Gabriel Band of Mission Indians did not provide CSUDH with a written response within 30 days of May 12, 2017, requesting formal consultation, there was no requirement for formal AB 52 consultation and no such formal consultation was conducted.

Although AB 52 consultation was not required for the reasons specified above, and therefore did not occur in regard to the proposed project, CSUDH conducted further outreach and sought input from California Native American Tribes. As part of the cultural resources identification process, the California Native American Heritage Commission (NAHC) was contacted by letter on May 10, 2017, requesting a review of the Sacred Lands File (SLF), and contact information for Native American groups or individuals that may have concerns about cultural resources in the project site. The response received from NAHC stated that the results of the search failed to identify the presence of Native American cultural resources in the project site. The NAHC also provided a list of five Native American groups and individuals that may have knowledge of cultural resources within the project site.

On May 19, 2017, letters were mailed to the contacts requesting input, and three of the contacts responded. Specifically, Andrew Salas (Gabrieleno Band of Mission Indians – Kizh Nation) requested to be contacted by the lead agency to discuss tribal cultural resources within and near the subject property. During subsequent correspondence, two additional tribal representatives Anthony Morales (Gabrieleno Tongva Band of Mission Indians) and Robert Dorame (Gabrieleno Tongva Indians of California) responded. Both groups indicated that the Master Plan site has a high sensitivity for cultural resources and requested that future work on campus have an archaeological monitor and a Native American monitor from their specific groups present. (See **Appendix D.1**).

Although the input from tribal representatives was not provided as part of formal consultation pursuant to AB 52, and no such consultation was required, mitigation has been incorporated to address potential impacts to tribal cultural resources. The proximity of mapped locations of the settlements in the vicinity of the project site indicate a moderate sensitivity of the project site for Native American cultural resources. In addition, a number of Native American contacts indicated that the project site was highly sensitive for cultural resources. Therefore, although no known Native American or tribal cultural resources are located within the Master Plan site, the proposed project has the potential for uncovering unknown significant cultural resources. Members of two contacted tribal groups requested the presence of both an archaeological monitor and Native American Monitor during construction. In response, Native American monitors will be provided during construction consistent with the mitigation discussion in this section.

Cultural Resource Surveys and Findings

A records search was conducted at the California Historical Resources Information System (CHRIS) at the California Historical Resources Information System's South Central Coastal Information Center (SCCIC) at California State University, Fullerton. Review of existing cultural resource data was conducted to provide context regarding known cultural resources within the Master Plan site. The search included any previously recorded cultural resources and investigations within a 0.5-mile radius of the project site. The search also involved a review of the National Register of Historic Places (NRHP), the California Register of Historical Resources (CRHR), the California Points of Historical Interest list, the California Historical Landmarks list, the Archaeological Determinations of Eligibility list, and the California State Historic Resources Inventory list. A separate built historic resource evaluation (memorandum) was also conducted to determine project effects to built or architectural historical resources. The memorandum can be

found in **Appendix D.2**. In addition, the search consisted of a review of all available historic United States Geologic Survey (USGS) 7.5- and 15-minute quadrangle maps.

Results of the CHRIS records search identified 10 previous cultural resources investigations that have been conducted within 0.5-mile of the project site. Of these studies, seven were conducted within the project site and two were within the 0.5-mile buffer. The CHRIS records search also identified two previously recorded cultural resources within a 0.5-mile radius of the project site.

The western half of the project site was previously surveyed in 2000 as part of a cultural resource inventory for the CSUDH campus (Bonner 2000). At the time of that study, much of the campus had already been developed and no prehistoric or historic cultural resources were identified during survey work. However, the study states that there was a moderate sensitivity for prehistoric sites due to the presence of documented subsurface sites in the immediate vicinity, including site P-19-000794 (Bonner 2000). This site was initially recorded in 1977 by Rosen and at the time, the majority of the site was covered with 10 feet of fill. Archaeological testing was conducted in 1976 as part of the 1977 recording and determined to be intact, yielding 671 stone tools, projectile points, ground stone fragments, and flakes. Additionally, the report states that many archaeological sites in the nearby areas are not necessarily manifest on the surface and are made up exclusively of subsurface deposits.

To determine the presence of historical resources on the CSUDH campus specific to the built environment ~~, which was the study area for these investigations, the~~ architectural historians completed research, analyzed historic photographs and maps, and reviewed prior documentation on the campus buildings to identify historical built resources and determine whether analyzed sources indicated those built resources may be eligible for listing on the NRHP or CRHR per the criteria. The search also involved a review of NRHP listings, the CRHR, the California Points of Historical Interest list, the California Historical Landmarks list, the Archaeological Determinations of Eligibility list, and the California State Historic Resources Inventory list.

In 2000, the western half of the campus was surveyed as part of a cultural resource inventory for the university (Bonner 2000). The CHRIS records search identified one previously recorded on-campus built resource nominated for listing in the California Register of Historical Resources by Lawrence Fafarman. This built resource, known as the "7-Eleven Olympic Velodrome," was demolished in 2003 and the current StubHub Center was built in its place (Harmon 2009). The Velodrome was a concrete bicycle track, which was used for events during the 1984 Summer Olympics. Because the Velodrome is no longer extant, it will not be addressed further in this EIR.

As part of the EIR for the 2009 CSUDH Master Plan, the Leo F. Cain Library was identified as a historical resource during the cultural survey conducted for the Master Plan (**Figures 3.4-3, 3.4-4 and 3.4-7**). Although it was not fifty years of age at that time (and still has not reached that milestone), which is used to determine when enough time has passed for a built resource to be accurately evaluated for historic significance, the 2009 evaluation indicated that the library would be considered exceptionally significant and, therefore, was eligible for the CRHR. For the purposes of consistency with the 2009 Master Plan's EIR, this evaluation for the Master Plan addresses that finding despite the 2018 Master Plan including no new planned facilities directly adjacent to the library and thus no significant impacts to the library resulting from the 2018 Master Plan.

This building's nomenclature stems from Leo F. Cain, who was the leader of the college's design team for the initial campus in Palos Verdes, one of the first professors when the college's doors opened in 1965, a champion for the Dominguez Hills location construction, and its first president. Completed in 1971, the Leo F. Cain Library/Educational Resource Center, designed by A. Quincy Jones, was the first major building completed on the Dominguez Hills campus. Located in the center of campus, the building is the embodiment of Jones' design philosophy employed for the campus in his original master plan. These design elements include use of concrete for building exteriors, overhanging roofs, building entrances at a central or mezzanine level, courtyard spaces below grade, and a pedestrian circulation network of elevated walkways and paths. By altering the landscape around the library and implementing it for his original master plan, Jones provided dimension and interest to an otherwise flat setting. The library, then named the Educational Resources Center, became the focal point from which the other campus buildings were related to and was one building in a series of others in which students were encouraged by building placement to pass through to reach other buildings. At the time of its construction, the library became the focal point of the new campus, with all surrounding buildings proximate to and smaller in scale than the library.

Figure 3.4-3
Leo F. Cain Library/Educational Resource Center, c. 1970s

Since its construction, the library's immediate setting has been altered with the construction of a student union completed in the 1980s immediately north of the library, using space formerly occupied by a long lawn. However, the location of the student union to the north of the library is consistent with the university's original master plan. South of the library and attached to it via a two-story enclosed glazed walkway is a large library addition. This addition was completed in 2010 as part of a library expansion project and is also consistent with the university's original

master plan, which proposed additional buildings south of the library. In the 2009 Master Plan EIR, the library was determined to be a potentially significant historical resource under CEQA if determined eligible for the CRHR NRHP under Criterion G, which allows buildings less than fifty years of age to be listed.

Figure 3.4-4
View West Toward Library's East Elevation

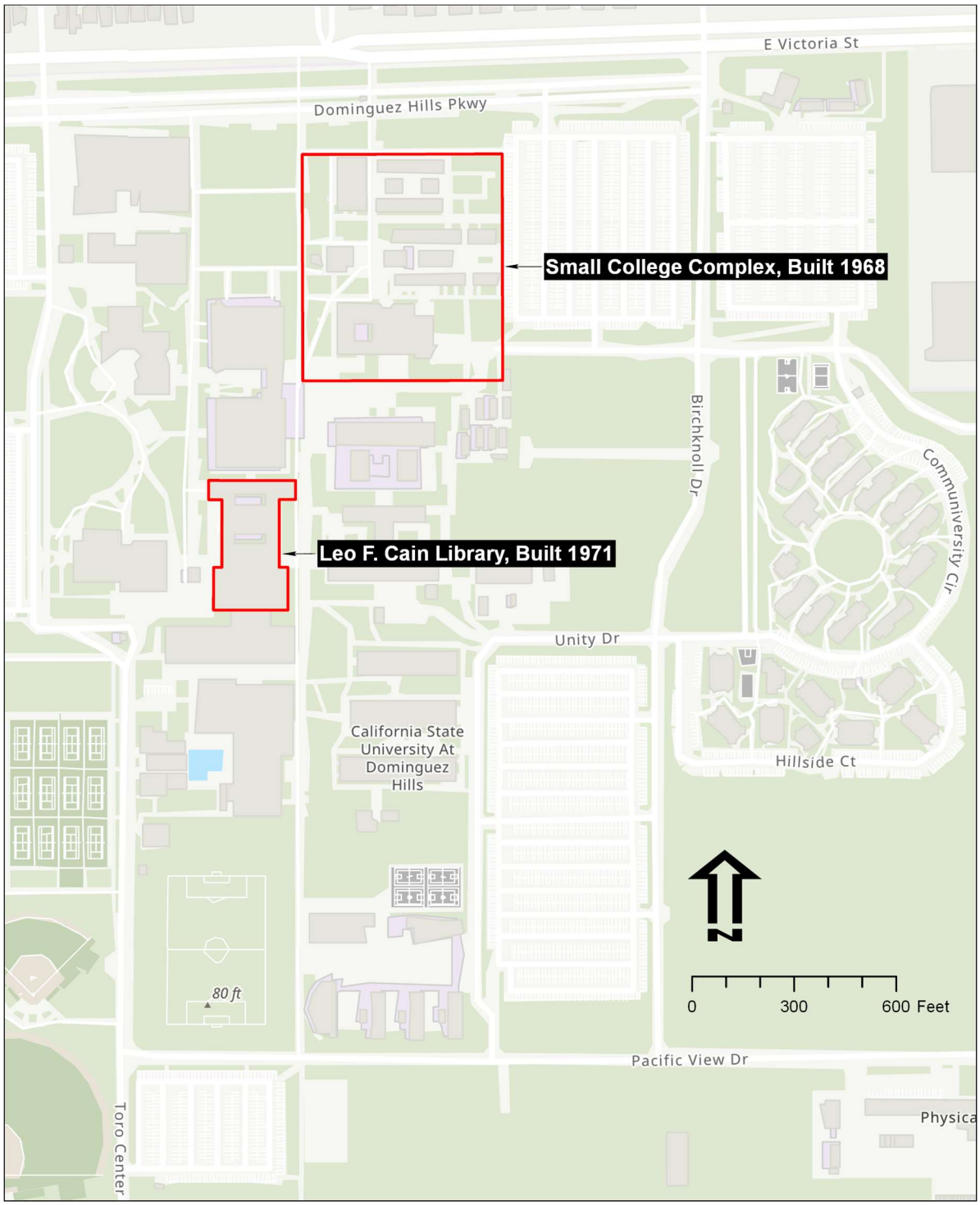
For the purposes of this historical analysis, buildings over the age of 50 years old were analyzed for historical significance. Although the Small College Complex has since been demolished pursuant to the previously approved 2010 Campus Master Plan, at the time the historic resources analysis was performed, ~~H~~historic and archival research indicated that only the Small College Complex, which include~~s~~d the School of Education, was more than 50 years of age and required a significance evaluation (**Figures 3.4-5, 3.4-6 and 3.4-7**). The Small College Complex ~~is~~was a group of buildings constructed in 1968 as part of the first completed campus buildings. Additional buildings within this complex were completed in 1969. The~~se~~re are ~~the only~~no other buildings that ~~are~~are currently 50 years of age. The Small College Complex provided classroom and college administration spaces for the over 2,600 students who enrolled at Dominguez Hills in the fall of 1970. Featuring multiple one-story buildings, the Small College Complex ~~is~~was a group of 14 buildings located on the north side of campus, connected by a network of sidewalks, covered walkways, patios, and courtyards. The buildings comprising the Small College Complex were the first buildings designed by A. Quincy Jones completed at what was then California State College, Dominguez Hills. Because the building designs are not consistent, there is a collective lack of design harmony among the buildings. Research has shown that A. Quincy Jones' design for the Small College Complex is nearly identical to his proposed plan for California State College at Palos Verdes developed years earlier for a different setting. It seems likely that Jones reused that design because of the expedited nature of the Small College Complex construction, and also because the buildings were not intended to be permanent components of the planned campus at

CSUDH. Because the elements of A. Quincy Jones' Dominguez Hills campus master plan incorporated different landscape and architectural design elements, the Small College Complex was likely intended to be a temporary solution to the immediate need for campus facilities. The complex's construction utilized inexpensive materials and was likely not intended to be permanent. The buildings are largely unchanged since their completion.

Figure 3.4-5
View of Small College Complex Building

Figure 3.4-6
View Within Small College Complex

Figure 3.4-7
Campus Map Showing the Location of the
Small College Complex and the Leo F. Cain Library



In addition to the assessment of Leo F. Cain Library and Small College Complex, qualified architectural historians examined proposed actions contained in the Master Plan and reviewed all buildings potentially impacted by proposed relocation, alteration, or replacement. These properties are included in Table 1 (Campus Facilities Potentially Planned for Alteration, Replacement, or Relocation) of **Appendix D.2**. While none of these additional buildings listed in Table 1 of **Appendix D.2** are more than 50 years of age and were not previously determined to be a potentially significant historical resource for purposes of CEQA, the architectural historians evaluated the buildings to determine if any may also have the exceptional design merit exhibited at the library.

A review of the potentially impacted buildings indicated that the buildings range in year built from 1969 through 2005, with buildings constructed in each decade between these dates. They are generally utilitarian in nature and appearance and lack ornamentation. None of the older buildings display character-defining features of the Modernist movement, such as high-quality materials or references to academically accepted mid-century styles. Because of the multitude of forms and materials used, as well as the very long and drawn out development of the campus, the buildings lack an overall sense of design cohesion or architectural compatibility. A number of buildings are constructed of prefabricated materials and many were intended for temporary use. The South Academic Complex buildings (102, 103) and the East Academic Complex buildings (116) are constructed of prefabricated materials and officially designated as "temporary buildings" on the previously approved Master Plans. Similarly, the Child Development Center (120) and Infant Toddler Center (121) are constructed of prefabricated materials. These buildings were likely intended to be temporary, are easily moved, and house uses that are planned to be relocated to other areas on the campus as part of the Master Plan. The housing complexes, Pueblo Dominguez 1 (70) and Pueblo Dominguez 2 (71) lack architectural significance and were constructed to respond to a demand for housing at CSUDH in time for the 1984 Los Angeles Olympics.

Existing Paleontological Resources

The EIR for the current Master Plan, which is dated September 2009 and certified in May 2010 (2010 Master Plan EIR), provides a detailed review of the paleontology records for the project site and surrounding area. As addressed in further detail in the 2010 Master Plan EIR, the Los Angeles County Natural History Museum (LACM) indicated a search of paleontology records that identified a vertebrate fossil locality that may lie within the proposed project boundaries as well as nearby localities with the same or similar sedimentary deposits as those that occur in the proposed project area. There are no known subsequent reports or investigations providing additional information regarding the existence of paleontological resources within the project boundaries.

Environmental Impacts

Proposed Design Elements/Project Design Features

As discussed below, the proposed project will not disturb or otherwise adversely affect any known historic site or unique archaeological resource, as those terms are defined under CEQA. Therefore, as indicated, the proposed project does not require or contemplate design elements or features intended to avoid any historic site or unique archaeological resource.

Significance Thresholds

Based on Appendix G of the CEQA Guidelines and other relevant criteria, the determination of whether the proposed project would have a potentially significant impact related to cultural and paleontological resources is based on the following criteria:

Threshold 1: Would the proposed project cause a substantial adverse change in the significance of a historical resource pursuant to CEQA Guidelines Section 15064.5?

Threshold 2: Would the proposed project cause a substantial adverse change in the significance of an archaeological resource pursuant to CEQA Guidelines Section 15064.5?

Threshold 3: Would the proposed project directly or indirectly destroy or impact a unique paleontological resource or site or unique geologic feature?

Threshold 4: Would the proposed project disturb any human remains, including those interred outside of dedicated cemeteries?

Threshold 5: Would the proposed project cause a substantial adverse change in the significance of a tribal cultural resource, defined in Public Resources Code Section 21074 as either a site, feature, place, cultural landscape that is geographically defined in terms of the size and scope of the landscape, sacred place, or object with cultural value to a California Native American tribe, and that is: a) listed or eligible for listing in the California Register of Historical Resources, or in a local register of historical resources as defined in Public Resources Code Section 5020.1(k); or b) a resource determined by the lead agency, in its discretion and supported by substantial evidence, to be significant pursuant to criteria set forth in subdivision (c) of Public Resources Code Section 5024.1. In applying the criteria set forth in Public Resources Code Section 5024.1(c), the lead agency shall consider the significance of the resource to a California Native American tribe.

Impact Analysis

Would the proposed project cause a substantial adverse change in the significance of a historical resource pursuant to CEQA Guidelines Section 15064.5?

After evaluation of current built resources on the CSUDH campus, two potential historical resources, the Leo F. Cain Library/Educational Resource Center and the Small College Complex, were identified and analyzed under historical designation criteria for the purposes of this EIR. Historic and archival research indicated that only the Small College Complex, which include~~s~~d the School of Education, was more than 50 years of age and required a significance evaluation. The Leo F. Cain Library/Educational Resource Center was previously identified as being potentially eligible before reaching 50 years of age because of its exceptional design merit.

The Leo F. Cain/Educational Resource Center was evaluated for significance under the CRHR Criterion 1 (associated with events that have made a significant contribution to the broad patterns of California's history), Criterion 2 (associated with the lives of important persons) and Criterion 3 (embodies distinctive characteristics). The Leo F. Cain Library/Educational Resource Center was not evaluated under Criterion 4 (has yielded information important in history) as part of this report, but was considered in archeological assessments.

Research has not indicated the building is associated with events that made a significant contribution to the broad patterns of California history. The building was not influential in trends associated with higher education. Therefore, the building does not qualify under Criterion 1. Although the building is named for Leo F. Cain (who contributed to the establishment of CSUDH), the naming of the library is an honorary designation and therefore does not qualify the resource under Criterion 2. Research has indicated that the complex is A. Quincy Jones' seminal work on the Dominguez Hills campus and the work of a master architect. The building was designed to seamlessly integrate surrounding campus buildings into Jones' master plan for the school, and its prominent location, originally at the end of a long lawn, demonstrated its importance to his campus master plan. Continuing Jones' efforts to design buildings that extend and integrate into their landscape, the library utilizes sunken courtyards and elevated walkways to provide dimension to its otherwise flat surroundings. Therefore, the Leo F. Cain Library/Educational Resource Center is eligible under Criterion 3. With this finding, the Leo F. Cain Library/Educational Resource Center is eligible for listing in the CRHR. The determinations of eligibility included in this report have not been submitted for review and concurrence by the California State Historic Preservation Office. These determinations are used for purposes of the Master Plan EIR only.

While the Leo F. Cain Library/Educational Resource Center was determined to be potentially eligible for the CRHR designation but is not yet designated, it exemplifies the architectural design merit of A. Quincy Jones and therefore has significance as a historical built resource. Through analyses of the proposed project's activities and the location of the building, it will not be directly or indirectly impacted by any Master Plan activity and will not be replaced, altered, or relocated. There are no direct effects to the library because all proposed landscape changes and new buildings constructed as part of the Master Plan will be located outside the library's historical resource property boundary. Indirect effects, including visual or noise effects, would be minor and located at a substantial distance from the building. Additionally, mature vegetation around the library and existing campus buildings would screen views toward the proposed new buildings. The Master Plan would not change the Leo F. Cain Library's integrity of location, design, setting, materials, workmanship, feeling, and association. Therefore, the Master Plan will have no effect on the Leo F. Cain Library/Educational Resource Center.

While ~~T~~the Small College Complex was demolished in accordance with the previously approved 2010 Campus Master Plan, it was evaluated for significance under CRHR Criteria 1, 2, and 3. The Small College Complex was not evaluated under Criterion 4 as part of this report, but was considered in archeological assessments. The Small College Complex ~~is~~was determined not eligible under Criterion 1. Research has not indicated that the Small College Complex ~~is~~was associated with events that made a significant contribution to the broad patterns of California history. The buildings were constructed quickly to accommodate arriving students and did not influence higher education trends within California. Nor were the buildings found to be in association with persons significant in the past, which results in ineligibility under Criterion 2.

Research has indicated that the complex is likely A. Quincy Jones' original design for California State College at Palos Verdes. Although the campus at Dominguez Hills is the culmination of that original project, the Small College Complex does not reflect the design characteristics ultimately chosen for the Dominguez Hills campus and incorporated into its original master plan. The Small College Complex design did not influence other campus buildings, either at Dominguez Hills or elsewhere in the CSU system. This design approach is contradictory to the methods employed in significant Modernist buildings of the era that employed high-quality materials, albeit in a new design vocabulary. Therefore, the Small College Complex ~~is~~was determined not eligible under Criterion 3.

The Small College Complex was also determined to be ineligible for listing as a designated historical resource despite its age of more than 50 years. It also did not have the same design merit as the library. This evaluation results in the determination that the proposed project would not impact the significance of this built resource, due to its lack of historical designation or exceptional design merit.~~, even though it is anticipated that these buildings will be replaced for proposed project purposes.~~ Effects are generally assessed only on properties that are listed in or eligible for listing in the CRHR. ~~However, it is worth noting that the Small College Complex is proposed for replacement as part of the Master Plan. It is the only~~ There are no other built resources more than 50 years of age that would be potentially impacted by the proposed actions in the Master Plan. Because the Small College Complex is not significant and is therefore not eligible for listing in the CRHR, its replacement would have no substantial adverse change to historic resources for the purposes of CEQA.

The campus buildings listed in Table 1 of **Appendix D.2** were also evaluated for determination of the exceptional design merit exhibited by the Leo F. Cain Library despite not being more than 50 years of age. When compared to the Leo F. Cain Library/Educational Resource Center, a campus building that is less than 50 years of age and has achieved significance, these buildings are modest representations of late-1960s/early-1970s utilitarian designs. They were built quickly, economically, and efficiently with minimal design consideration in order to respond to facility needs of the newly established campus at Dominguez Hills. None were determined to exhibit the same architectural design merit or demonstrate significance as a historical built resource. The buildings were also evaluated for significance to determine impacts from their anticipated replacement. The additional buildings do not appear to meet CEQA special considerations for buildings less than 50 years of age. Although some of the buildings date from the first decade of CSUDH's existence, some have been constructed as recently as 13 years ago. A visual assessment of the buildings and archival research did not indicate these buildings have achieved significance within the last 50 years and sufficient time has not passed "to obtain a scholarly perspective on the events or individuals associated with the resource."[2] Since the buildings are not architecturally significant, they do not warrant further evaluation at this time. Their demolition, relocation, or alteration would have no substantial adverse change to historical resources for purposes of CEQA.

Because the Master Plan would have no effect and no substantial adverse change on the Leo F. Cain Library/Educational Resource Center, which is the only historical resource as defined by

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[2] California Office of Historic Preservation, *Technical Assistance Series #1, California Environmental Quality Act (CEQA) and Historical Resources*, "Special Considerations" (2001), 29.

CEQA within the study area, the Master Plan would not result in a significant impact on a historical resource as defined in CEQA Guidelines Section 15064.5.

Would the proposed project cause a substantial adverse change in the significance of an archaeological resource pursuant to CEQA Guidelines Section 15064.5?

Although there are no known archeological resources present on the project site, the proposed project would have the potential to result in significant impacts to cultural resources related to potential direct effects to archaeological resources. This potential is derived from the possibility of project related ground disturbance encountering and disturbing previously undocumented archaeological resources.

A review of ethnographic and historic maps indicates a moderate sensitivity of the vicinity of the project site for Native American cultural resources and moderate sensitivity for historic archaeological resources. Historic aerial photographs indicate that the site began to be developed between 1963 and 1972 and reached its current state by 2005. Prior to its development the site appeared to consist of vacant parcels likely used for agricultural and oil production purposes. Much of the currently undeveloped areas of the campus have historically been paved or developed only with landscaping. In these locations, there is no native ground surface visible, but there is a moderate possibility that archaeological resources could be preserved beneath the surface.

The sensitivity of the project site has also been noted in previous cultural resources studies. The most recent archaeological survey was conducted in 2000 by Bonner and includes the western half of the current project site. Although no archaeological resources have been documented within the subject property, several significant subsurface prehistoric archaeological deposits have been documented in the vicinity of the project site. The presence of large subsurface archaeological deposits in nearby areas, including relatively close to subject property, indicate that there is moderate potential for subsurface deposits on the CSU Dominguez Hills campus, specifically in locations that have not previously been subject to extensive ground disturbance.

The potential for uncovering other previously unknown significant cultural resources is considered moderate. With implementation of Mitigation Measures CUL-1 through CUL-6, potential impacts would be reduced to less than significant levels.

Would the proposed project directly or indirectly destroy or impact a unique paleontological resource or site or unique geologic feature?

Construction Impacts

Within the existing boundaries of CSUDH, the proposed project area is situated on older Quaternary alluvium. Excavations in undisturbed older Quaternary deposits exposed throughout the project area have a good chance of uncovering significant vertebrate fossils, even at depths as shallow as five feet below the surface. The destruction of any unique paleontological resources would result in a significant impact under CEQA. National Natural Landmarks (NNLs) designated by the United States Department of the Interior are areas that contain important resources such as natural habitats and unusual geological formations. There are no NNLs or unique or unusual geologic features within or near the proposed CSUDH Project area. The nearest NNL to the project area is the 24-acre Rancho La Brea NNL, in Los Angeles County. Its closest point, the CSUDH

project area is approximately 15.9 miles (mi) southeast of the nearest part of the Rancho La Brea NNL. Given the lack of impacts to identified unique geological features, Mitigation Measures CUL-7 through CUL-11 will be implemented to address potential impacts on paleontological features to the extent any such features are encountered during construction. With implementation of these Mitigation Measures, potential impacts would be reduced to less-than-significant levels.

Operational Impacts

No operational impacts on paleontological resources would occur as a result of the operation of the proposed project.

Would the proposed project disturb any human remains, including those interred outside of dedicated cemeteries?

The disposition of burials falls first under the general prohibition on disturbing or removing human remains under California Health & Safety Code Section 7050.5. More specifically, remains suspected to be Native American are treated under CEQA Guidelines Section 15064.5; Public Resources Code Section 5097.98 illustrates the process to be followed in the event that remains are discovered. If human remains are discovered during construction, no further disturbance to the site shall occur, and the County Coroner must be notified (CEQA Guidelines section 15064.5 and Pub. Resources Code section 5097.98).

A significant adverse effect would occur if grading or excavation activities associated with a project were to disturb previously interred human remains. The NAHC was contacted to conduct a SLF search on May 10, 2017. On May 15, 2017, the NAHC responded that the SLF failed to indicate the presence of Native American cultural resources in the immediate project area. The absence of archaeological or Native American sacred places does not preclude their existence at the subsurface level. Environmental impacts may result from project implementation to the extent there is a discovery of unrecorded human remains. With the implementation of Mitigation Measure CUL-12, impacts on human remains would be less than significant.

Would the proposed project cause a substantial adverse change in the significance of a tribal cultural resource, defined in Public Resources Code Section 21074 as either a site, feature, place, cultural landscape that is geographically defined in terms of the size and scope of the landscape, sacred place, or object with cultural value to a California Native American tribe, and that is: a) listed or eligible for listing in the California Register of Historical Resources, or in a local register of historical resources as defined in Public Resources Code Section 5020.1(k); or b) a resource determined by the lead agency, in its discretion and supported by substantial evidence, to be significant pursuant to criteria set forth in subdivision (c) of Public Resources Code Section 5024.1. In applying the criteria set forth in Public Resources Code Section 5024.1(c), the lead agency shall consider the significance of the resource to a California Native American tribe.

Assembly Bill 52 (AB 52) established a formal consultation process for California Native American Tribes to identify potential significant impacts to Tribal Cultural Resources, as defined in Public Resources Code Section 21074, as part of CEQA. As specified in AB 52, lead agencies must provide notice inviting consultation to California Native American tribes that are traditionally and culturally affiliated with the geographic area of a proposed project if the Tribe has submitted

a request in writing to be notified of proposed projects. The Tribe must respond in writing within 30 days of the City's AB 52 notice.

In conformance with AB 52, CSUDH provided formal, written notification of the proposed project to the Gabrieleno Tongva San Gabriel Band of Mission Indians, which was the only California Native American Tribe which had previously requested to be informed by CSUDH through formal notification of proposed projects involving CSUDH. The formal written notification provided by CSUDH was sent to the Gabrieleno Tongva San Gabriel Band of Mission Indians on May 12, 2017, and no response was received. Because the Gabrieleno Tongva San Gabriel Band of Mission Indians did not provide CSUDH with a written response within 30 days of May 12, 2017, requesting formal consultation, there was no requirement for formal AB 52 consultation and no such formal consultation was conducted.

Although AB 52 consultation was not required for the reasons specified above, and therefore did not occur in regard to the proposed project, CSUDH conducted further outreach and sought input from California Native American Tribes. As part of the cultural resources identification process, the NAHC was contacted by letter on May 10, 2017, requesting a review of the SLF, and contact information for Native American groups or individuals that may have concerns about cultural resources in the project site. The response received from NAHC stated that the results of the search failed to identify the presence of Native American cultural resources in the project site. The NAHC also provided a list of five Native American groups and individuals that may have knowledge of cultural resources within the project site. On May 19, 2017, letters were mailed to each of the identified contacts requesting input. Andrew Salas (Gabrieleno Band of Mission Indians – Kizh Nation) requested to be contacted by the lead agency to discuss tribal cultural resources within and near the subject property. During subsequent correspondence, two additional tribal representatives Anthony Morales (Gabrieleno Band of Mission Indians) and Robert Dorame (Gabrieleno Tongva Indians of California) responded. Both groups indicated that the Master Plan site has a high sensitivity for cultural resources and requested that future work on campus have an archaeological monitor and a Native American monitor from their specific groups present. To date, no response has been received from the remaining contacts (see **Appendix D.1**).

The proximity of mapped locations of the settlements in the vicinity of the project site indicate a moderate sensitivity of the project site for Native American cultural resources. In addition, two Native American contacts indicated that the project site was highly sensitive for cultural resources. Therefore, although no known Native American or tribal cultural resources are located within the Master Plan site, the proposed project has the potential for uncovering unknown significant cultural resources. Members of two contacted tribal groups provided input requesting the presence of both an archaeological monitor and Native American Monitor during construction. Although no formal AB 52 consultation was required or conducted, mitigation has been proposed that would require the proposed project to provide a single Native American monitor on behalf of both the Gabrieleno Band of Mission Indians and the Gabrieleno Tongva Indians of California, or that multiple Native American monitors are utilized based upon an alternating schedule for the provision of Native American monitoring.

No known tribal cultural resources are located within the proposed project area, however there is a possibility that previously unidentified resources could be present. With the implementation of

Mitigation Measures CUL-1 through CUL-7, and CUL-13, potential impacts to tribal cultural resources would be reduced to less than significant levels.

Cumulative Impacts

Although impacts to historic, archeological, paleontological, and tribal cultural resources tend to be site-specific, the analysis of cumulative impacts to these resources is based on whether the impacts of the proposed project and any other projects in the vicinity, when taken as a whole, would result in significant impacts on these resources. Determinations regarding the significance of impacts of other projects on historic, archeological, paleontological, and tribal cultural resources would be made on a case-by-case basis and, if necessary, the applicants of such projects would be required to implement appropriate mitigation measures and regulatory requirements. Furthermore, as set forth below, the proposed project's potential impacts to historic, archeological, paleontological, and tribal cultural resources would be less than significant with implementation of the recommended mitigation measures. As a result, no significant cumulative impacts associated with historic, archeological, paleontological, and tribal cultural resources would occur, and the proposed project's contribution to cumulative impacts would not be cumulatively considerable and would be less than significant.

Mitigation Measures

CUL-1: Retain a Qualified Archaeologist. The project shall retain a qualified archaeologist, defined as an archaeologist who meets the Secretary of the Interior's Standards for professional archaeology, to carry out all mitigation measures related to cultural resources.

CUL-2: Survey of Undeveloped Areas Prior to Development. Prior to development or construction of new facilities in portions of the campus which have not previously been developed (particularly the eastern portions of campus which have not been surveyed previously and where the majority of the planned development is located), an archaeological pedestrian survey shall be conducted to identify potentially significant archaeological resources. Resources found to be not significant shall not require mitigation.

If a potentially significant site would be impacted by ground-disturbing activities, either the site should be avoided, or a Phase II investigation would be required to evaluate the site for eligibility for listing in the CRHR. After testing, it may be determined that data recovery will be needed.

CUL-3: Avoidance of Potentially Eligible Archaeological Sites through Project Design. The preferred mitigation is avoidance of any potentially eligible site through project design. If direct impact to a previously unknown archaeological site, by earth-moving activities cannot be avoided, a Phase II investigation would be necessary to determine significance in accordance with the following measure.

CUL-4: Phase II (Evaluation) and Phase III (Data Recovery) Cultural Resources Investigations. Ground-disturbing impacts to any potentially eligible archaeological site ~~should~~ shall

be avoided to the extent feasible. If avoidance is not feasible, CSUDH shall ensure that the potentially impacted archaeological site is assessed for significance, as defined by Public Resources Code Section 21083.2 or CEQA Guidelines Section 15064.5(a), through implementation of Phase II investigations. ~~Should Phase II testing of any previously unknown archaeological site, exhaust the data potential of the site, impact from the proposed project would be reduced to a less than significant level. Resources found to be not significant shall not require mitigation.~~ If Phase II testing of any previously unknown archaeological site exhausts the data potential of the site or determines that the site is not significant, data recovery shall not be required.

Impacts to a site found to be significant under CRHR Criterion 4 shall be mitigated through a Phase III data recovery program. For such a site, prior to any ground-disturbing activities, a detailed archaeological treatment plan shall be prepared and implemented by a qualified archaeologist. Data recovery investigations will be conducted in accordance with the archaeological treatment plan to ensure collection of sufficient information to address archaeological and historical research questions, and results will be presented in a technical report (or reports) describing field methods, materials collected, and conclusions. Additional testing and/or data recovery phases may involve additional excavation and/or more detailed recordation of resources or more comprehensive archival research. Any cultural material collected as part of an assessment or data recovery effort should be curated at a qualified facility. Field notes and other pertinent materials should be curated along with the archaeological collection. If a resource is found to be significant under CRHR Criterion 1, 2, or 3, alternative mitigation measures may be necessary to reduce the level of impact to less than significant. These measures shall be developed by the qualified archaeologist, in consultation with CSUDH and other stakeholders, as appropriate.

CUL-5: Construction Monitoring for Archaeological Resources. Prior to construction, a qualified archaeological monitor shall be retained to monitor ground-disturbing activities within portions of the campus that do not currently contain structures. These include areas that are currently paved, landscaped, or undeveloped. The duration and timing of the monitoring shall be determined by the qualified archaeologist in consultation with CSUDH. The archaeological monitor will work under the supervision of the qualified archaeologist. Archaeological monitors will hold at least a Bachelor's degree in Anthropology, Archaeology, History or related field and at least 1-year of construction monitoring experience. The qualified archaeologist will prepare an Archaeological Monitoring Plan for each project undertaken under the Master Plan, which will specify the appropriate frequency and procedure for reporting archaeological monitoring activities, including submittal of a final report to the CSUDH planning office.

CUL-6: Inadvertent Discoveries. If previously unknown buried cultural deposits are encountered during any phase of project construction, all construction work within 20 m (60 feet) of the deposit shall cease and the qualified archaeologist shall be consulted to assess the find. If the resources are determined to be Native American in origin, the project archaeologist will consult with CSUDH to continue Native American consultation procedures. As part of this process, it may be determined that a qualified

Native American monitor will be required. If the discovery is determined to be not significant, work will be permitted to continue in the area. If a discovery is determined to be significant, a mitigation plan ~~should~~ shall be prepared and carried out in accordance with state guidelines. If the resource cannot be avoided, a data recovery plan should be developed to ensure collection of sufficient information to address archaeological and historical research questions, with results presented in a technical report describing field methods, materials collected, and conclusions. Any cultural material collected as part of an assessment or data recovery effort should be curated at a qualified facility. Field notes and other pertinent materials should be curated along with the archaeological collection.

~~**CUL-7:** A Principal Paleontologist meeting the Society of Vertebrate Paleontology (SVP) standards shall oversee a qualified paleontologic monitor who shall.A qualified paleontologic monitor shall monitor all excavation in areas identified as likely to contain paleontological resources. These areas are defined as all areas within the proposed project site where excavation is planned.These areas are defined as all areas within the proposed project site where planned excavation will exceed depths of five feet. The qualified paleontologic monitor shall retain the option to reduce monitoring if, in his or her professional opinion, sediments being monitored are previously disturbed. Monitoring may also be reduced if the potentially fossiliferous units, previously described, are not found to be present or, if present, are determined by qualified paleontologic personnel to have a low potential to contain fossil resources. The principal paleontologist will prepare a Paleontologic Monitoring Plan for each project undertaken under the Master Plan, which will specify the appropriate frequency and procedure for reporting paleontological monitoring activities, including submittal of a final report to the CSUDH planning office.~~

~~**CUL-8:** The principal paleontologist will prepare a Paleontologic Monitoring Plan for each project undertaken under the Master Plan, which will specify the appropriate frequency and procedure for reporting paleontological monitoring activities, including submittal of a final report to the CSUDH planning office.~~

~~The Principal Paleontologist will prepare a Paleontological Monitoring Plan (PMP) for each project undertaken under the Master Plan. HERE? The PMP will specify buffer and reporting protocols during monitoring activities. The paleontologic monitor shall be equipped to salvage fossils and samples of sediments as they are unearthed to avoid construction delays and shall be empowered to temporarily halt or divert equipment to allow for removal of abundant or large specimens. The qualified paleontologic monitor shall retain the option to reduce monitoring if, in his or her professional opinion, sediments being monitored are previously disturbed. Monitoring may also be reduced if the potentially fossiliferous units, previously described, are not found to be present or, if present, are determined by qualified paleontologic personnel to have a low potential to contain fossil resources.~~

~~**CUL-9:** Recovered paleontologic specimens shall be prepared to a point of identification and permanent preservation, including washing of sediments to recover small invertebrates~~

~~and vertebrates. Preparation of recovered paleontologic specimens shall be overseen by a Principal Paleontologist.~~

CUL-7: A qualified project Principal Paleontologist meeting the Society of Vertebrate Paleontology (SVP) standards shall be identified prior to the commencement of all projects. The Principal Paleontologist shall be tasked with the production of the Paleontological Monitoring Plan, identifying and supervising qualified project paleontological monitors, and overseeing the salvage, identification and curation of paleontological resources.

CUL-8: The project Principal Paleontologist, as required by CUL-7 shall prepare a Paleontological Monitoring Plan (PMP) for each project initiated under the Master Plan. The PMP shall specify the appropriate frequency for paleontological monitoring and protocols for reporting monitoring activities, including submittal of a final report to the CSUDH planning office. The PMP shall also specify the appropriate buffer to implement in case of paleontological discovery, evaluation and salvage. Finally, the PMP shall provide guidance on the appropriate methods for evaluation and salvage, as well as guidance for resource identification, preparation and curation, including identifying a curatorial repository.

CUL-9: The qualified project Principal Paleontologist shall identify and supervise a qualified paleontological monitor to implement monitoring as prescribed by the PMP. All areas designated as sensitive per the PMP shall be monitored under the direction of the Principal Paleontologist. The monitor shall be equipped to salvage fossils and samples of sediments as they are unearthed to avoid construction delays and shall be empowered to temporarily halt or divert equipment to allow for removal of abundant or large specimens. The monitor shall also retain the option to reduce monitoring if, in his or her professional opinion, sediments being monitored have previously been disturbed or if the potentially fossilferous units are not found to be present, or if present, are determined to be have a low potential to contain fossil resources.

CUL-10: Recovered paleontological specimens shall be prepared to a point of identification and permanent preservation, including washing of sediments to recover small invertebrates and vertebrates and curated into a professional, accredited museum repository with permanent retrievable storage. Curation of recovered paleontological specimens shall be overseen by a Principal Paleontologist.

CUL-11: A report of findings, with an appended itemized inventory of paleontological specimens, shall be prepared. The report and inventory~~, when submitted to the County,~~ will signify completion of the program to mitigate impacts on the paleontological resources and be submitted with curated specimens as specified by the Paleontological Monitoring Plan required by CUL-8. Preparation of the inventory shall be overseen by a P~~p~~rincipal P~~p~~aleontologist.

CUL-12: Discovery of Human Remains. If human remains are discovered, State of California Health & Safety Code Section 7050.5 stipulates that no further disturbance shall occur until the County Coroner has made a determination of origin and disposition pursuant

to Public Resources Code Section 5097.98. The Los Angeles County Coroner must be notified of the find immediately. If the human remains are determined to be ~~prehistoric~~ Native American, the Coroner will notify the Native American Heritage Commission, which will determine and notify a Most Likely Descendent (MLD). All treatment and disposition of Native American remains shall be compliant with Public Resources Code 5097.98, including completion of inspection by a MLD. The MLD will complete the inspection of the site within 48 hours of being granted access to the site ~~of notification~~ and may recommend scientific removal and nondestructive analysis of human remains and items associated with Native American burials.

CUL-13: Retain Qualified Native American Monitor. The Project Applicant shall be required to obtain the services of a single qualified Native American Monitor or two qualified Native American Monitors who would alternate in the provision the necessary monitoring. Under either approach, the Native American Monitor(s) shall be approved by the Tribal Representatives from the Gabrieleno Band of Mission Indians and Gabrieleno Tongva Indians of California. The Monitor must be present during all construction-related ground disturbance activities. Ground disturbance is defined as activities that include, but are not limited to, pavement removal, pot-holing or auguring, grubbing, weed abatement, boring, grading, excavation, and trenching, within the project area. The Native American Monitor(s) will complete monitoring logs daily. The logs will provide descriptions of the daily activities, including construction activities, locations, soil, and any cultural materials identified. The on-site monitoring shall end when the project site grading and excavation activities are completed, or when the Tribal Representatives and monitor have indicated that the site has a low potential for archeological resources.

Level of Impact after Mitigation

Based on the above analysis, with implementation of the identified mitigation measures, impacts to cultural and tribal resources would be avoided or minimized to less-than-significant levels.

3.5 Greenhouse Gases

This section examines the potential short-term construction and long-term operational impacts to global climate change resulting from the 2018 Campus Master Plan's (proposed project) emission of greenhouse gases (GHGs). Modeling input and output files associated with the emissions inventory data presented in this section are located in **Appendix B.2** of this EIR.

Environmental Setting

Global climate change refers to changes in average climatic conditions (e.g., temperature, wind patterns, precipitation, and storms). Global warming, which is one aspect of climate change, is the observed increase in the average temperature of the Earth's surface and atmosphere. One identified cause of global warming is an increase of GHGs in the atmosphere; these gases allow the sun's rays to enter the Earth's atmosphere but trap the energy that is radiated back into space, resulting in a warming of the atmosphere called the "greenhouse effect."

Science of Global Climate Change

Emissions of carbon dioxide (CO_2) are a leading cause of global warming, with other pollutants such as methane (CH_4), nitrous dioxide (N_2O), hydrofluorocarbons, perfluorocarbons, and sulfur hexafluoride also contributing.[1] The magnitude of GHG impacts on global warming differs because each GHG has a different global warming potential, i.e., certain compounds have, on a pound-for-pound basis, greater contributions to global warming than others. The effect of each GHG is measured as a combination of the volume of its emissions and its global warming potential, using one pound of CO_2 as the common equivalent measure of global warming potential. (CO_2 has the greatest impact on global warming because of the relatively large quantities of CO_2 emitted into the atmosphere.) Thus, GHG emissions are typically measured in terms of megagrams or metric tonnes (MT) of CO_2 equivalent (CO_2e).[2]

In the context of CEQA, "GHG impacts are exclusively cumulative impacts; there are no non-cumulative GHG emission impacts from a climate change perspective."[3] Further,

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1 California Health & Safety Code Section 38505(g).

2 In this analysis, a "tonne" refers to a metric ton, i.e., 1,000 kilograms (2,204.6 pounds).

3 CAPCOA, CEQA & Climate Change, January 2008, p. 35. See also SMAQMD, CEQA Guide, February 2016, p. 6-1 ["from the standpoint of CEQA, GHG impacts to global climate change are inherently cumulative"]; SJVAPCD, Guidance for Valley Land-use Agencies in Addressing GHG Emission Impacts for New Projects under CEQA, December 2009, p. 4 ["effects of project specific GHG emissions are cumulative"].

because climate change is occurring on a global scale, it is not meaningfully possible to quantify the scientific effect of new GHG emissions caused by a single project.[4]

Potential Effects of Human Activity on Global Climate Change

Globally, climate change has the potential to impact numerous environmental resources through anticipated, though uncertain, impacts related to future air temperatures and precipitation patterns.

Scientific modeling completed by the Intergovernmental Panel on Climate Change (IPCC) predicts that the continued emission of GHGs at or above current rates would induce more extreme climate changes during the 21st century than were observed during the 20th century.[5] By the end of the 21st century, global surface temperature change is likely to exceed 1.5°C (relative to 1850–1900) in all of the IPCC's four assessed climate model projections but one.

The understanding of the role that GHG emissions plays on global climate trends is complex and involves varying uncertainties and a balance of different effects. In addition to uncertainties about the extent to which human activity rather than solar or volcanic activity is principally responsible for increased warming, there also is evidence that some human activity has cooling, rather than warming, effects, as discussed in publications by the IPCC. Nonetheless, when all effects and uncertainties are considered together, there is general scientific consensus that human activity contributes significantly to global warming.

Acknowledging uncertainties regarding the rate at which anthropogenic (i.e., human caused) GHG emissions may continue to increase,[6] and the impact of such emissions on climate change, the IPCC devises emission scenarios that utilize various assumptions about the rates of economic development, population growth, and technological advancement over the course of the next century. For the IPCC's 2014 synthesis report (referred to as, AR5), a set of four new scenarios, denoted Representative Concentration Pathways (RCPs), were developed. (RCPs are based on a combination of integrated

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4 SMAQMD, CEQA Guide, February 2016, p. 6-10 ["there is no known level of emissions that determines if a single project will substantially impact overall GHG emission levels in the atmosphere"]; SJVAPCD, Guidance for Valley Land-use Agencies in Addressing GHG Emission Impacts for New Projects under CEQA, December 2009, p. 3 ["existing science is inadequate to support quantification of impacts that project specific GHG emissions have on global climatic change"].

5 The IPCC is the leading international and intergovernmental body for the assessment of climate change and was established—in 1988—by the United National Environment Programme and World Meteorological Organization to provide the world with a clear scientific view on the current state of knowledge on climate change and its potential environmental and socio-economic impacts.

6 These uncertainties are attributable to various factors under human control, such as future population growth and the locations of that growth; the amount, type, and locations of economic development; the amount, type, and locations of technological advancement; adoption of alternative energy sources; legislative and public initiatives to curb emissions; and public awareness and acceptance of methods for reducing emissions.

assessment models, simple climate models, atmospheric chemistry and global carbon cycle models.) The four RCPs include a mitigation scenario, two stabilizing scenarios, and one scenario with very high GHG emissions. While the projected effects of global warming on weather and climate are uncertain and likely to vary regionally, the IPCC expects the following effects based on the latest RCPs:

- It is very likely that the Arctic sea ice cover will continue to shrink and thin, with the Northern Hemisphere spring snow cover and global glacier volume also decreasing;
- It is virtually certain that there will be more frequent hot and fewer cold temperature extremes over most land areas on daily and seasonal timescales, with heat waves occurring at a higher frequency and duration;
- Global surface temperature change for the end of the 21st century is likely to exceed 1.5°C relative to 1850 to 1900 for all RCP scenarios except the mitigation scenario. It is likely to exceed 2°C for the highest forcing scenario and one stabilizing scenario, and more likely than not to exceed 2°C for the remaining stabilizing scenario. Warming will continue beyond 2100 under all RCP scenarios except the mitigation scenario;
- The global ocean will continue to warm during the 21st century, with heat penetrating from the surface to the deep ocean and affecting ocean circulation;
- Further uptake of carbon by the ocean will increase ocean acidification; and
- Changes in the global water cycle in response to the warming over the 21st century will not be uniform. The contrast in precipitation between wet and dry regions and between wet and dry seasons will increase, although there may be regional exceptions.

Most aspects of climate change will persist for many centuries even if GHG emissions cease entirely. Potential secondary effects from global warming also include a global rise in sea level, impacts to agriculture and water supply, changes in disease vectors, and changes in habitat and biodiversity.

Potential Effects of Global Climate Change on the State of California

According to the California Air Resources Board (CARB), some of the potential California-specific impacts of global warming may include loss in snow pack, sea level rise, more extreme heat days per year, more high ozone days, more large forest fires, and more drought years.

To protect the State's public health and safety, resources, and economy, the California Natural Resources Agency (Resources Agency) — in coordination with other State agencies — has published multiple adaptation planning documents, including the *2009 California Climate Adaptation Strategy* (2009); *Safeguarding California: Reducing*

Climate Risk (July 2014); *Safeguarding California: Implementation Action Plans* (March 2016); and, *Safeguarding California Plan: 2018 Update* (January 2018).[7]

Several recent studies have attempted to explore the possible negative consequences that climate change, left unchecked, could have in California. These reports acknowledge that scientists' understanding of the complex global climate system, and the interplay of the various internal and external factors that affect climate change, remains too limited to yield scientifically valid conclusions on a localized scale. And, while substantial work has been done at the international and national level to evaluate climatic impacts, far less information is available on regional and local impacts. In addition, projecting regional impacts of climate change and variability relies on large-scale scenarios of changing climate parameters, using information that is typically at too general a scale to make accurate regional assessments.

Regulatory Setting

Federal

Clean Air Act

In *Massachusetts v. Environmental Protection Agency* (2007) 549 U.S. 497, the U.S. Supreme Court held that the U.S. Environmental Protection Agency (USEPA) has authority under the Clean Air Act to regulate CO_2 emissions if those emissions pose an endangerment to the public health or welfare.

In 2009, the USEPA issued an "endangerment finding" under the Clean Air Act, concluding that GHGs threaten the public health and welfare of current and future generations and that motor vehicles contribute to GHG emissions. These findings provide the basis for adopting national regulations to mandate GHG emission reductions under the Clean Air Act.

To date, the USEPA has exercised its authority to regulate mobile sources that reduce GHG emissions via the control of vehicle manufacturers, as discussed immediately below (see "Federal Vehicle Standards" below). The USEPA also has adopted standards that set a national limit on GHG emissions produced from new, modified, and reconstructed power plants, and has issued the Clean Power Plan, which is targeted toward the reduction of carbon emissions from existing power plants. Under the Clean Power Plan, the USEPA set state-specific interim and final performance rates for two subcategories of fossil fuel-fired electric generation units: fossil fuel-fired electric steam generating units and natural gas-fueled combined cycle generating units. The Clean Power Plan requires states to develop and implement plans that ensure that the power plants in their state—either individually, together or in combination with other measures—achieve the interim

[7] The most recent 2018 roadmap for the protection of communities, infrastructure, services and the natural environment from global climate change addresses: agriculture; biodiversity and habitat; climate justice; emergency management; energy; forests; land use and community development; oceans and coasts; parks, recreation and California culture; public health; transportation; and, water.

performance rates over the period of 2022 to 2029 and the final performance rates, rate-based goals or mass-based goals by 2030. In February 2016, the U.S. Supreme Court stayed implementation of the Clean Power Plan pending judicial review; and, in March 2017, President Trump signed the Executive Order on Energy Independence, which calls for a review of the Clean Power Plan. Thereafter, in October 2017, the USEPA issued a proposal to repeal the Clean Power Plan.

Federal Vehicle Standards

In response to the *Massachusetts v. Environmental Protection Agency* decision, in 2007, the Bush Administration issued Executive Order 13432 directing the USEPA, the Department of Transportation (DOT), and the Department of Energy (DOE) to establish regulations that reduce GHG emissions from motor vehicles, non-road vehicles, and non-road engines by 2008. In 2009, the National Highway Traffic Safety Administration (NHTSA) issued a final rule regulating fuel efficiency for and GHG emissions from cars and light-duty trucks for model year 2011; and, in 2010, the USEPA and NHTSA issued a final rule regulating cars and light-duty trucks for model years 2012–2016.

In 2010, President Obama issued a memorandum directing the same federal agencies to establish additional standards regarding fuel efficiency and GHG reduction, clean fuels, and advanced vehicle infrastructure. In response to this directive, the USEPA and NHTSA proposed stringent, coordinated federal GHG and fuel economy standards for model years 2017–2025 light-duty vehicles. The proposed standards are projected to achieve 163 grams/mile of CO_2 in model year 2025, on an average industry fleet-wide basis, which is equivalent to 54.5 miles per gallon (mpg) if this level were achieved solely through fuel efficiency. The final rule was adopted in 2012 for model years 2017–2021. However, in April 2018, the USEPA issued a mid-term evaluation determination, finding that the standards for model years 2022–2025 are not appropriate and should be revised during additional rulemaking proceedings. In May 2018, California and 17 other states representing over 40 percent of the U.S. car market filed a lawsuit challenging the USEPA's mid-term evaluation determination.

In addition to the regulations applicable to cars and light-duty trucks described above, in 2011, the USEPA and NHTSA announced fuel economy and GHG standards for medium- and heavy-duty trucks for model years 2014–2018. The standards for CO_2 emissions and fuel consumption are tailored to three main vehicle categories: combination tractors, heavy-duty pickup trucks and vans, and vocational vehicles. In August 2016, the USEPA and NHTSA finalized the next phase (Phase 2) of the fuel economy and GHG standards for medium- and heavy-duty trucks, which will apply to vehicles with model year 2018 and later. In response to the completion of the federal Phase 2 rulemaking, CARB is undertaking rulemaking for California's Phase 2 program and amendments to the Tractor-Trailer GHG regulation, and expects to finalize the rulemaking by the conclusion of 2018.[8]

[8] CARB, CA Phase 2 GHG, www.arb.ca.gov/msprog/onroad/caphase2ghg/caphase2ghg.htm.

Energy Independence and Security Act

The Energy Independence and Security Act of 2007 (EISA) facilitates the reduction of national GHG emissions by requiring the following:

- Increasing the supply of alternative fuel sources by setting a mandatory Renewable Fuel Standard (RFS) that requires fuel producers to use at least 36 billion gallons of biofuel in 2022;
- Prescribing or revising standards affecting regional efficiency for heating and cooling products, procedures for new or amended standards, energy conservation, energy efficiency labeling for consumer electronic products, residential boiler efficiency, electric motor efficiency, and home appliances;
- Requiring approximately 25 percent greater efficiency for light bulbs by phasing out incandescent light bulbs between 2012 and 2014; requiring approximately 200 percent greater efficiency for light bulbs, or similar energy savings, by 2020; and
- While superseded by the USEPA and NHTSA actions described above, (i) establishing miles per gallon targets for cars and light trucks and (ii) directing the NHTSA to establish a fuel economy program for medium- and heavy-duty trucks and create a separate fuel economy standard for trucks.

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

State

Numerous laws, plans, and regulations that require GHG emissions reductions have been implemented or are under development in California. This comprehensive statewide framework is summarized below.

Executive Order-S-3-05

In 2005, former Governor Arnold Schwarzenegger signed Executive Order S-3-05, which established the following statewide GHG emission reduction goals for California:

(1) By 2010, reduce GHG emissions to 2000 levels;

(2) By 2020, reduce GHG emissions to 1990 levels; and

(3) By 2050, reduce GHG emissions to 80 percent below 1990 levels.

Assembly Bill 32

Assembly Bill (AB) 32 (Nunez, 2006), the California Global Warming Solutions Act of 2006, was enacted after considerable study and expert testimony before the Legislature. The heart of AB 32 is the requirement that statewide GHG emissions be reduced to 1990

levels by 2020.[9] In order to achieve this reduction mandate, AB 32 requires CARB to adopt rules and regulations, in an open public process, that achieve the maximum technologically feasible and cost-effective GHG reductions.

AB 32 charges CARB to monitor and regulate sources of GHG emissions in order to reduce the State's emissions level. In December 2007, CARB approved 427 million MT CO_2e as the total statewide GHG 1990 emissions level and 2020 emissions limit. This limit is an aggregate statewide limit, rather than sector- or facility-specific, and is in accordance with Health & Safety Code Section 38550.

Per Health & Safety Code Section 38561(b), CARB also is required to prepare, approve, and amend a scoping plan that identifies and makes recommendations on "direct emission reduction measures, alternative compliance mechanisms, market-based compliance mechanisms, and potential monetary and nonmonetary incentives for sources and categories of sources that [CARB] finds are necessary or desirable to facilitate the achievement of the maximum feasible and cost-effective reductions of greenhouse gas emissions by 2020."

2008 Scoping Plan

In 2008, CARB adopted the *Climate Change Scoping Plan: A Framework for Change* (2008 Scoping Plan) in accordance with Health & Safety Code Section 38561. During the development of the 2008 Scoping Plan, CARB created a planning framework that is comprised of eight emissions sectors: (1) transportation; (2) electricity; (3) commercial and residential; (4) industry; (5) recycling and waste; (6) high global warming potential (GWP) gases; (7) agriculture; and, (8) forest net emissions.

The 2008 Scoping Plan establishes an overall framework for the measures that will be adopted to reduce California's GHG emissions from the eight emissions sectors to 1990 levels by 2020. In the Scoping Plan, CARB determined that achieving the 1990 emissions level in 2020 would require a reduction in GHG emissions of approximately 28.5 percent from the otherwise projected 2020 emissions level, i.e., those emissions that would occur in 2020, absent GHG-reducing laws and regulations (referred to as "Business-As-Usual" [BAU]).[10] For example, in further explaining CARB's BAU methodology, CARB assumed that all new electricity generation would be supplied by natural gas plants, no further regulatory action would impact vehicle fuel efficiency, and building energy efficiency codes would be held at 2005 standards.

In the 2011 *Final Supplement to the AB 32 Scoping Plan Functional Equivalent Document* (2011 Final Supplement), CARB revised its estimates of the projected 2020 emissions level in light of the economic recession and the availability of updated information about GHG reduction regulations. Based on the new economic data, CARB determined that achieving the 1990 emissions level by 2020 would require a reduction in

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9 California Health & Safety Code Section 38550.

10 CARB, Climate Change Scoping Plan: A Framework for Change, December 2008, p. 12.

GHG emissions of 21.7 percent (down from 28.5 percent) from BAU conditions. When the 2020 emissions level projection also was updated to account for newly implemented regulatory measures, including Pavley I (model years 2009–2016) and the Renewables Portfolio Standard (12 percent to 20 percent), CARB determined that achieving the 1990 emissions level in 2020 would require a reduction in GHG emissions of 16 percent (down from 28.5 percent) from BAU conditions.

2014 First Update to the Scoping Plan

In 2014, CARB adopted the *First Update to the Climate Change Scoping Plan: Building on the Framework* (2014 First Update).[11] The stated purpose of the 2014 First Update is to "highlight […] California's success to date in reducing its GHG emissions and lay […] the foundation for establishing a broad framework for continued emission reductions beyond 2020, on the path to 80 percent below 1990 levels by 2050."[12] The First Update found that California is on track to meet the 2020 emissions reduction mandate established by AB 32, and noted that California could reduce emissions further by 2030 to levels squarely in line with those needed to stay on track to reduce emissions to 80 percent below 1990 levels by 2050 if the State realizes the expected benefits of existing policy goals.[13]

In conjunction with the 2014 First Update, CARB identified "six key focus areas comprising major components of the State's economy to evaluate and describe the larger transformative actions that will be needed to meet the State's more expansive emission reduction needs by 2050."[14] Those six areas are: (1) energy; (2) transportation; (3) agriculture; (4) water; (5) waste management; and (6) natural and working lands. The First Update identifies key recommended actions for each sector that will facilitate achievement of the 2050 reduction target.

Based on CARB's research efforts, it has a "strong sense of the mix of technologies needed to reduce emissions through 2050."[15] Those technologies include energy demand reduction through efficiency and activity changes; large-scale electrification of on-road vehicles, buildings and industrial machinery; decarbonizing electricity and fuel supplies; and the rapid market penetration of efficient and clean energy technologies.

As part of the 2014 First Update, CARB recalculated the State's 1990 emissions level using more recent global warming potentials identified by the IPCC. Using the recalculated 1990 emissions level and the revised 2020 emissions level projection identified in the 2011 Final Supplement, CARB determined that achieving the 1990

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[11] Health & Safety Code Section 38561(h) requires CARB to update the Scoping Plan every five years.

[12] CARB, First Update to the Climate Change Scoping Plan: Building on the Framework, May 2014, p. 4.

[13] Id. at p. 34.

[14] Id. at p. 6.

[15] Id. at p. 32.

emissions level by 2020 would require a reduction in GHG emissions of approximately 15.3 percent (instead of 28.5 percent or 16 percent) from the BAU conditions.

2017 Second Update to the Scoping Plan

In November 2017, CARB published *California's 2017 Climate Change Scoping Plan* (Second Update). The Second Update was prepared to address Executive Order B-30-15 and Senate Bill (SB) 32, and specifically the statewide GHG emissions reduction target for 2030, as discussed below. The Second Update includes continuation of the Cap-and-Trade Program through 2030, and incorporates a Mobile Source Strategy that is intended to increase zero emission vehicle fleet penetration and establish a more stringent Low Carbon Fuel Standard target by 2030. On December 14, 2017, CARB adopted the 2017 Climate Change Scoping Plan.

2015 State of the State Address

In his January 2015 inaugural address, Governor Brown identified key climate change strategy pillars, including: (1) reducing today's petroleum use in cars and trucks by up to 50 percent; (2) increasing from one-third to 50 percent our electricity derived from renewable sources; (3) doubling the energy efficiency savings achieved at existing buildings and making heating fuels cleaner; (4) reducing the release of methane, black carbon, and other short-lived climate pollutants; (5) managing farm and rangelands, forests and wetlands so they can store carbon; and (6) periodically updating the State's climate adaptation strategy. As discussed below, the second and third pillars have been codified via recently enacted legislation (SB 350).

Executive Order (EO) B-30-15

In April 2015, Governor Brown signed EO B-30-15, which established the following GHG emission reduction goal for California: by 2030, reduce GHG emissions to 40 percent below 1990 levels. This EO also directed all state agencies with jurisdiction over GHG-emitting sources to implement measures designed to achieve the new interim 2030 goal, as well as the pre-existing, long-term 2050 goal identified in EO S-3-05 (see discussion above). Additionally, the EO directed CARB to update its Scoping Plan (see discussion above) to address the 2030 goal. Therefore, in the coming months, CARB is expected to develop statewide inventory projection data for 2030, and identify reduction strategies capable of securing emission reductions that allow for achievement of the EO's new interim goal.

2016 State of the State Address

In his January 2016 inaugural address, Governor Brown identified a statewide goal to bring per capita GHGs down to two tons per person. The origin of this goal is the Global Climate Leadership Memorandum of Understanding (Under 2 MOU), which established limiting global warming to less than two degrees Celsius as the guiding principle for the reduction of GHG emissions by 2050. The parties to the Under 2 MOU have agreed to pursue emissions reductions consistent with a trajectory of 80 to 95 percent below 1990 levels by 2050 and/or achieve a per capita annual emissions goal of less than two metric

tons by 2050. The Under 2 MOU has been signed or endorsed by 127 jurisdictions (including California) representing 27 countries and six continents.

Senate Bill (SB) 32 and Assembly Bill (AB) 197

Enacted in 2016, SB 32 (Pavley, 2016) codifies the 2030 emissions reduction goal of EO B-30-15 by requiring CARB to ensure that statewide GHG emissions are reduced to 40 percent below 1990 levels by 2030.

SB 32 was coupled with a companion bill: AB 197 (Garcia, 2016). Designed to improve the transparency of CARB's regulatory and policy-oriented processes, AB 197 created the Joint Legislative Committee on Climate Change Policies, a committee with the responsibility to ascertain facts and make recommendations to the Legislature concerning statewide programs, policies and investments related to climate change. AB 197 also requires CARB to make certain GHG emissions inventory data publicly available on its web site; consider the social costs of GHG emissions when adopting rules and regulations designed to achieve GHG emission reductions; and, include specified information in all Scoping Plan updates for the emission reduction measures contained therein.

2017 State of the State Address

In his January 2017 inaugural address, Governor Brown reaffirmed the statewide goal to bring per capita GHGs down to two tons per person by 2050, noting that the Under 2 MOU signatories now represent one billion people.

Energy Sources

Renewables Portfolio Standard

As most recently amended by SB 350 (De León, 2015), California's Renewables Portfolio Standard requires retail sellers of electric services to increase procurement from eligible renewable energy resources to 33 percent of total retail sales by 2020, 40 percent of total retail sales by 2024, 45 percent of total retail sales by 2027, and 50 percent of total retail sales by 2030.

Building Energy Efficiency Standards

Title 24, Part 6 of the California Code of Regulations regulates the design of building shells and building components. The standards are updated periodically to allow for consideration and possible incorporation of new energy efficiency technologies and methods. The California Energy Commission (CEC) adopted the 2016 Building Energy Efficiency Standards (2016 Building Standards), effective January 1, 2017. The CEC presently is completing the rulemaking proceedings for the 2019 Building Standards, which will go into effect on January 1, 2020.

The California Public Utilities Commission, CEC, and CARB also have a shared, established goal of achieving Zero Net Energy (ZNE) for new construction in California. The ZNE goal generally means that new buildings must use a combination of improved efficiency and renewable energy generation to meet 100 percent of their annual energy need, as specifically defined by the CEC:

> A ZNE Code Building is one where the value of the energy produced by on-site renewable energy resources is equal to the value of the energy consumed annually by the building, at the level of a single 'project' seeking development entitlements and building code permits, measured using the [CEC]'s Time Dependent Valuation (TDV) metric. A ZNE Code Building meets an Energy Use Intensity value designated in the Building Energy Efficiency Standards by building type and climate zone that reflect best practices for highly efficient buildings.[16]

The key policy timelines include: (1) all new residential construction in California to be ZNE by 2020; and (2) all new commercial construction in California to be ZNE by 2030. At the time of this writing, the CEC has not promulgated a regulatory compliance pathway for statewide achievement of the ZNE goals.

In addition to the CEC's efforts, in 2008, the California Building Standards Commission adopted the nation's first green building standards. The California Green Building Standards Code (Part 11 of Title 24) is commonly referred to as CALGreen, and establishes voluntary and mandatory standards pertaining to the planning and design of sustainable site development, energy efficiency, water conservation, material conservation, and interior air quality. CALGreen is periodically amended; the most recent 2016 standards became effective on January 1, 2017. The CEC presently is undertaking rulemaking proceedings for 2019 CALGreen.

Appliance Standards

The CEC periodically amends and enforces Appliance Efficiency Regulations contained in Title 20 of the California Code of Regulations. The regulations establish water and energy efficiency standards for both federally-regulated appliances and non-federally regulated appliances. The most current Appliance Efficiency Regulations, dated January 2017, cover 23 categories of appliances (e.g., refrigerators; plumbing fixtures; dishwashers; clothes washer and dryers; and televisions) and apply to appliances offered for sale in California.

Mobile Sources

Sustainable Communities Strategy Plan

SB 375 (Steinberg, 2008), the Sustainable Communities and Climate Protection Act, coordinates land use planning, regional transportation plans, and funding priorities to

[16] CEC, 2015 Integrated Energy Policy Report, 2015, p. 41.

reduce GHG emissions from passenger vehicles through better-integrated regional transportation, land use, and housing planning that provides easier access to jobs, services, public transit, and active transportation options. SB 375 specifically requires the Metropolitan Planning Organization (MPO) relevant to the project area (here, the Southern California Association of Governments [SCAG]) to include a Sustainable Communities Strategy in its Regional Transportation Plan (RTP) that will achieve GHG emission reduction targets set by CARB by reducing vehicle miles traveled from light-duty vehicles through the development of more compact, complete, and efficient communities.

For the area under SCAG's jurisdiction, including the project site, CARB adopted regional targets for reduction of mobile source-related GHG emissions by 8 percent for 2020 and by 19 percent for 2035.[17] The emissions reduction targets are expressed as a percentage change in per capita passenger vehicle GHG emissions relative to 2005 levels.

Pursuant to Government Code Section 65080(b)(2)(K), a Sustainable Communities Strategy does not: (1) regulate the use of land; (2) supersede the land use authority of cities and counties; or (3) require that a city's or county's land use policies and regulations, including those in a general plan, be consistent with it.

Pavley Regulations

AB 1493 (Pavley, 2002) required CARB to adopt regulations to reduce GHG emissions from non-commercial passenger vehicles and light-duty trucks for model years 2009–2016. In September 2004, and pursuant to AB 1493, CARB approved regulations (which are often referred to as the "Pavley standards") to reduce GHG emissions from new motor vehicles beginning with the 2009 model year. In September 2009, CARB adopted amendments to the Pavley standards to reduce GHG emissions from new motor vehicles through the 2016 model year. CARB obtained a waiver from the USEPA that allows for implementation of these regulations notwithstanding possible federal preemption concerns.

Low Carbon Fuel Standards

EO S-1-07, as issued by former Governor Arnold Schwarzenegger, called for a 10 percent or greater reduction in the average fuel carbon intensity for transportation fuels in California regulated by CARB by 2020.[18] In response, CARB approved the Low Carbon Fuel Standard (LCFS) regulations in 2009, which became fully effective in April 2010. Thereafter, a lawsuit was filed challenging CARB's adoption of the regulations; and, in 2013, a court order was issued compelling CARB to remedy substantive and procedural defects of the LCFS adoption process under CEQA.[19] However, the court allowed

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17 CARB's adopted SB 375 reduction targets are available at https://www.arb.ca.gov/cc/sb375/finaltargets2018.pdf.

18 Carbon intensity is a measure of the GHG emissions associated with the various production, distribution and use steps in the "lifecycle" of a transportation fuel.

19 *POET, LLC v. CARB* (2013) 217 Cal.App.4th 1214.

implementation of the LCFS to continue pending correction of the identified defects. In September 2015, CARB re-adopted the LCFS regulations.

Advanced Clean Cars Program

In 2012, CARB approved the Advanced Clean Cars (ACC) program, an emissions-control program for passenger vehicles and light-duty truck for model years 2017–2025, thereby continuing the regulatory framework established under the Pavley standards beyond model year 2016. The program combines the control of smog, soot, and GHG emissions with requirements for greater numbers of zero emission vehicles. By 2025, when the rules will be fully implemented, new automobiles will emit 34 percent fewer global warming gases and 75 percent fewer smog-forming emissions.

Zero Emission Vehicles

Zero emission vehicles (ZEVs) include plug-in electric vehicles, such as battery electric vehicles and plug-in hybrid electric vehicles, and hydrogen fuel cell electric vehicles.

In 2012, Governor Brown issued EO B-16-2012, which calls for the increased penetration of ZEVs into California's vehicle fleet in order to help California achieve a reduction of GHG emissions from the transportation sector equaling 80 percent less than 1990 levels by 2050. In furtherance of that statewide target for the transportation sector, the EO also calls upon CARB, the CEC and the California Public Utilities Commission to establish benchmarks that will: (1) allow over 1.5 million ZEVs to be on California roadways by 2025; and (2) provide the State's residents with easy access to ZEV infrastructure.

In furtherance of those goals, in February 2013, the Governor's Interagency Working Group on ZEVs issued the *2013 ZEV Action Plan: A roadmap toward 1.5 million zero-emission vehicles on California roadways by 2025*. Additionally, in May 2014, the National Renewable Energy Laboratory issued the *California Statewide Plug-In Electric Vehicle Infrastructure Assessment* (Infrastructure Assessment report) prepared at the request of the CEC. In the Infrastructure Assessment report, the CEC noted that "can't miss" ZEV charging locations are residential and workplace areas.

More recently, in January 2018, Governor Brown issued EO B-48-18. In that EO, Governor Brown directs all State entities to work with the private sector and all appropriate levels of government to put at least 5 million ZEVs on California roads by 2030. Those same entities also are directed to spur the construction and installation of an extensive hydrogen fueling and electric charging network.

California is incentivizing the purchase of ZEVs through implementation of the Clean Vehicle Rebate Project (CVRP), which is administered by a non-profit organization (The Center for Sustainable Energy) for CARB and currently subsidizes the purchase of passenger near-zero and zero emission vehicles as follows:

- Hydrogen Fuel Cell Electric Vehicles: $5,000;
- Battery Electric Vehicles: $2,500;

- Plug-In Hybrid Electric Vehicles: $1,500; and
- Zero Emission Motorcycles: $900.

Finally, in its 2014 First Update, CARB recognized that the light-duty vehicle fleet "will need to become largely electrified by 2050 in order to meet California's emission reduction goals."[20] Accordingly, CARB's ACC program—summarized above—requires about 15 percent of new cars sold in California in 2025 to be a plug-in hybrid, battery electric or fuel cell vehicle.[21]

Solid Waste Diversion

The California Integrated Waste Management Act of 1989, as modified by AB 341 (Chesbro, 2011), requires each jurisdiction's source reduction and recycling element to include an implementation schedule that shows: (1) diversion of 25 percent of all solid waste by January 1, 1995, through source reduction, recycling, and composting activities; (2) diversion of 50 percent of all solid waste on and after January 1, 2000; and (3) source reduction, recycling and composting of 75 percent of all solid waste on or after 2020, and annually thereafter. The California Department of Resources Recycling and Recovery (CalRecycle) is required to develop strategies, including source reduction, recycling, and composting activities, to achieve the 2020 goal.

CalRecycle published a discussion document, entitled *California's New Goal: 75 Percent Recycling,* which identified concepts that would assist the State in reaching the 75 percent goal by 2020. Subsequently, in August 2015, CalRecycle released the *AB 341 Report to the Legislature*, which identifies five priority strategies for achievement of the 75 percent goal: (1) moving organics out of landfills; (2) expanding recycling/manufacturing infrastructure; (3) exploring new approaches for State and local funding of sustainable waste management programs; (4) promoting State procurement of post-consumer recycled content products; and, (5) promoting extended producer responsibility.

CEQA Guidelines on GHG Emissions

In 2007, SB 97 was enacted and directed the Governor's Office of Planning and Research and the Resources Agency to prepare amendments to the CEQA Guidelines addressing the analysis of GHG emissions under CEQA. Following a formal rulemaking, a series of amendments to the CEQA Guidelines were adopted to provide the general framework for the analysis of GHG emissions, and became effective in 2010. The amendments do not provide a mandatory, quantitative rubric for GHG emissions analysis, but instead provide general guidance and recognize long-standing CEQA principles regarding the discretion afforded to lead agencies where supported by substantial evidence.

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[20] CARB, First Update to the Climate Change Scoping Plan: Building on the Framework, May 2014, p. 48.

[21] Id. at p. 47.

Regional

SCAG's Regional Transportation Plan/Sustainable Communities Strategy

As previously discussed, SB 375 requires SCAG to incorporate a Sustainable Communities Strategy into its RTP that achieves the GHG emission reduction targets set by CARB. In April 2016, SCAG adopted the *2016–2040 Regional Transportation Plan/Sustainable Communities Strategy: A Plan for Mobility, Accessibility, Sustainability and a High Quality of Life* (2016 RTP/SCS). SCAG's 2016 Sustainable Communities Strategy is expected to reduce per capita transportation emissions by 8 percent in 2020, 18 percent in 2035, and 21 percent in 2040. In June 2016, CARB accepted SCAG's determination that the 2016 Sustainable Communities Strategy would meet the region's GHG reduction targets.[22]

South Coast Air Quality Management District

The South Coast Air Quality Management District (SCAQMD) is principally responsible for comprehensive air pollution control in the South Coast Air Basin, which includes Los Angeles, Orange, and the urbanized portions of Riverside and San Bernardino Counties. SCAQMD works directly with SCAG, County transportation commissions, and local governments, and cooperates actively with all federal and state government agencies to regulate air quality.

Adopted Threshold for Stationary Source Projects

In 2008, SCAQMD's Governing Board adopted an interim CEQA GHG significance threshold of 10,000 $MTCO_2e$ per year for industrial stationary source projects for which SCAQMD is the CEQA lead agency.

Draft Threshold for All other Project Types

For all other projects (i.e., non-stationary source projects), SCAQMD staff developed a draft, multi-tier framework to assist with the CEQA significance evaluation process. The draft framework recognized the relevance of locally adopted GHG reduction plans, and allowed for the utilization of such plans in the significance evaluation process. The draft framework also contemplated the use of offsets to reduce emissions. As of the time of this writing, SCAQMD's Governing Board has not adopted the draft staff proposal.

Local

City of Carson CAP

The City of Carson set forth goals and policies in its *2015 Energy Efficiency Climate Action Plan* (EECAP) in an effort to incorporate environmental responsibility into its daily management of its community and municipal operations. The EECAP includes a

[22] CARB, Executive Order G-16-066, June 2016.

list of emission reduction actions organized by sector and a time frame for implementation. The EECAP classifies the reduction targets into two separate categories, community and municipal emissions. Energy efficiency strategies were outlined in the EECAP, with goals and measures defined for each of the two categories. **Table 3.5-1~~Table 3.5-1~~** below identifies the EECAP's community-oriented strategies; municipal-oriented strategies are not identified below because those pertain to facilities and operations under the City's direct control. (Please note that the California State University (CSU) system, as a state agency, is not subject to local plans, policies, and guidelines. Nonetheless, for information purposes, the City's EECAP is considered and discussed here.)

Table 3.5-1
Community-Oriented EECAP Strategies

Goal 1: Increase Energy Efficiency (EE) in Existing Residential Units	
Measure 1.1: EE Training and Education	Discussion: The proposed project includes the demolition and redevelopment of existing, less efficient square footage with new, more efficient square footage. Specifically, the project would demolish approximately 171,500 square feet of existing academic, administrative and support buildings, and replace those buildings with approximately 1, 256,600 square feet of new buildings with the same or similar purpose and function. Additionally, the project would demolish approximately 165,300 square feet of existing student housing, replacing such existing development with 635,300 square feet of new student housing opportunities. As such, the proposed project is consistent with the City's goal to improve the energy efficiency of existing building stock.
Measure 1.2: Increase Participation in Existing EE Programs	
Measure 1.3: Establish, Promote, or Require Home Energy Evaluations	
Measure 1.4: Promote, Incentivize, or Require Residential Home Energy Renovations	
Goal 2: Increase Energy Efficiency in New Residential Development	
Measure 2.1: Encourage or Require EE Standards Exceeding Title 24	Discussion: As provided in Chapter 6, Sustainability Guidelines, of the Guidelines for the 2018 Campus Master Plan (Guidelines), the CSU system is building to LEED Silver equivalent, and striving to achieve LEED Gold or Platinum equivalent. Under the Guidelines, CSUDH is aspiring to achieve full certification at the LEED Gold and Platinum levels with new campus development.
Goal 3: Increase Energy Efficiency in Existing Commercial Units	
Measure 3.1: EE Training and Education	Discussion: See assessment of Goal 1 above for relevant information.
Measure 3.2: Increase Participation in Existing EE Programs	
Measure 3.3: Promote or Require Non-	

Table 3.5-1
Community-Oriented EECAP Strategies

Residential Energy Audits	
Measure 3.4: Promote or Require Commercial Energy Retrofits	
Goal 4: Increase Energy Efficiency in New Commercial Development	
Measure 4.1 Encourage or Require EE Standards Exceeding Title 24	Discussion: See assessment of Goal 2 above for relevant information.
Goal 5: Increase Energy Efficiency through Water Efficiency	
Measure 5.1: Promote or Require WE through SBX7-7	Discussion: As provided in Chapter 6, Sustainability Guidelines, of the Guidelines for the 2018 Campus Master Plan, the CSU system is striving to achieve a 20% reduction in water consumption by 2020. As also discussed in the Guidelines, the campus currently uses municipally-supplied recycled water for all on-campus irrigation, except for areas within the student housing complex. It is further noted that CALGreen, discussed above, contains water-efficiency standards that enhance conservation objectives.
Measure 5.2: Promote WE Standards Exceeding SBX7-7	
Goal 6: Decrease Energy Demand through Reducing Urban Heat Island Effect	
Measure 6.1: Promote Tree Planting for Shading and EE	Discussion: Chapter 5, Landscape Guidelines, of the Guidelines for the 2018 Campus Master Plan contains information regarding the landscape concepts for the campus. As discussed therein, the campus is striving to increase plant biodiversity while minimizing water demand. The landscape concepts identified in the Guidelines will minimize urban heat island effect by using a diversity of surface types and covers throughout the campus.
Measure 6.2: Incentivize or Require Light-Reflecting Surfaces	

Source: *Energy Efficiency Climate Action Plan*, December 2015, City of Carson

CSU Programs and Policies for the Reduction of GHG Emissions

CSU Sustainability Policy

In 2014, the CSU Board of Trustees approved an expanded sustainability policy making environmentally living and learning the way of life on campus. In relation to GHG reduction, the specific sustainability policy goals include:

- Reduce GHG emissions to 1990 levels by 2020, and to 80% below 1990 levels by 2040;
- Increase self-generation of energy from 44 to 80 megawatts by 2020;
- Source energy to 33 percent renewables by 2020;
- Reduce per capita waste going to the landfills to 80 percent by 2020;
- Reduce water use by 20 percent by 2020;
- Purchase at least 20 percent of food from sustainable sources (local, organic, free trade); and
- Integrate sustainability across the curriculum.

In 2016, CSU issued an updated summary of its sustainability policy, which renamed some of its sustainability goals and included additional requirements. The current CSU System Sustainability Policy and Goals are set forth in ~~**Figure 15 in Section 2.0**~~**Figure 2.0-16** in Section 2.0, Project Description, of this EIR. CSU also utilizes its own Architecture and Engineering Guidelines, which further support its sustainability policies and practices.

California State University, Dominguez Hills (CSUDH) Guidelines

CSUDH has prepared its Guidelines for the 2018 Campus Master Plan to support and advance the University's vision of developing a vital campus that supports the facilities, buildings, improvements, and services needed for a top-performing model urban university to serve up to 20,000 full-time students. The Guidelines explain the vision, goals, and planning process for the proposed project, and include landscape design, sustainability, and Core Campus design guidelines to be used by CSUDH to guide development of the physical campus and its facilities over the next 15-20 years.[23] To achieve the CSU sustainability goals discussed above, the proposed project incorporates sustainability guidelines for all future campus development. The guidelines address energy efficiency, water efficiency, stormwater management, and transportation that reduces vehicular trips, waste management, and the overall enhanced resiliency of the campus' facilities, operating systems, and infrastructure.

CSUDH also maintains an Office of Sustainability, which works closely with facilities, staff, students, and academic departments to support projects that reduce the campus' environmental footprint. Relatedly, CSUDH currently implements, and will continue to

[23] The Guidelines are a campus planning tool; they are not part of the proposed project's discretionary approvals to be considered by the CSU Board of Trustees.

implement, numerous programs and policies to reduce vehicular trips and energy use,[24] including but not limited to:

- Providing information to campus faculty, staff and students that encourages multi-modal commuting options (bike, bus, carpool, vanpool, Metrolink, walk, etc.);
- Promoting carpool and vanpool through participation in the rideshare program, which offers benefits such as guaranteed rides home, preferential parking, rewards, and ridematching;
- Implementing the Student Alternative Commuting Program, which offers reduced price monthly bus passes and Exclusive Online Ridematching Service designed to assist with finding carpool partners within the student community;
- Operating the Toro Express, which provides shuttle bus service from both the Harbor Gateway Transit Center and the Metro Blue Line Artesia Station (the shuttle service runs on 30-minute intervals Monday through Thursday, from 7:30 a.m. to 10:00 p.m.);
- Providing electric vehicle charging stations in parking lots 2 and 3, with a three-hour charging limit (CSUDH employees who travel to work in a Zero Emission Vehicle or Plug-in Hybrid Vehicle can join the Rideshare Program and park in a reserved carpool space); and
- StubHub Center, in partnership with Long Beach Transit, offers event-day shuttle services from Harbor Gateway Transit Center and Metro Blue Line Del Amo Station.

Furthermore, the campus is connected to the region and local communities by several bus lines operated by L.A. Metro, Long Beach Transit, and Torrance Transit, thereby providing alternative modes of transportation.

Existing Conditions

Project Site

The proposed project is located on the existing CSUDH campus. As the location of an existing academic institution, the project site presently contains a mix of university-oriented land uses, such as academic buildings, residence halls, recreational amenities and athletic facilities (including the StubHub Center), and other campus support operations. For purposes of this analysis, and even though the proposed project would involve the demolition and redevelopment of existing, less efficient square footage with

[24] While these are existing campus programs and policies that will continue for the foreseeable future (to the benefit of the proposed project), please note that the emissions inventory data presented below conservatively does not account for these programs and policies. In other words, reductions in vehicle trips, vehicle miles traveled, and fuel consumption resulting from these programs and policies have not been quantified, which serves to overstate the proposed project's GHG emissions.

new, more efficient square footage, all proposed project emissions are assumed to be new, additive GHG emissions.

State, National, and International Emissions Inventory Levels

Based on the most recent available emissions inventory data for various geographies of increasing scale: In 2015, the State of California emitted approximately 440,400,000 MT CO_2e per year. In 2015, the United States emitted approximately 6,586,700,000 MT CO_2e per year. And, in 2010, the global inventory level was approximately 53,937,187,680 MT CO_2e per year.

As to the 2015 national inventory, of the four major emission sectors—residential, commercial, industrial and transportation—the transportation sector accounts for the highest fraction of GHG emissions (approximately 56 percent of emissions from these four sectors); these emissions are entirely generated from direct fossil fuel combustion. Approximately 60 percent of the transportation emissions resulted from passenger car and light-duty truck use. The remaining emissions came from other transportation activities, including the combustion of diesel fuel in medium- and heavy-duty vehicles and jet fuel in aircraft.

As to the 2015 State inventory, California emitted about seven percent of the United States' emissions. California's percentage contribution is due primarily to the sheer size of California, as compared to other states. Transportation accounted for approximately 39 percent of the State's GHG emissions, followed by electricity generation (both in-state and out-of-state) at 19 percent, and industrial sources at 23 percent. Residential and commercial activities comprised approximately 11 percent of the inventory. Agriculture and forestry is the source of approximately 8 percent of the State's GHG emissions.

Environmental Impacts

Methodology

Sources

The project's GHG emissions inventory data presented in this section includes the following sources of emissions: (1) area sources (e.g., landscaping-related fuel combustion sources); (2) energy use (natural gas and electricity) associated with residential and non-residential buildings; (3) water supply and wastewater (i.e., the indirect GHG emissions from the production of electricity required to convey, treat, and distribute water and wastewater); (4) solid waste (i.e., the indirect GHG emissions associated with waste disposed of at a landfill using disposal rates by land use and overall composition); (5) mobile sources (e.g., passenger vehicles); (6) construction; and (7) vegetation changes. The project's annual operational emissions consist of the first five categories, while the one-time emissions are associated with construction and vegetation changes.

Model

CalEEMod, Version 2016.3.2 was used to quantify the project's GHG emissions. CalEEMod provides a platform to calculate both construction emissions and operational emissions from a land use development project and specifically aids the user in the following calculations:

- One-time short-term construction emissions associated with site preparation, demolition, grading, utility installation, building, coating, and paving from off-road construction equipment, and on-road mobile equipment associated with workers, vendors, and hauling; and
- Operational emissions associated with the fully built-out land use development, such as on-road mobile vehicle traffic generated by the land uses,[25] off-road emissions from landscaping equipment, natural gas usage in the buildings, electricity usage in the buildings, water usage by the land uses, and solid waste disposal by the land uses.

CalEEMod was developed by SCAQMD, in coordination with other California air districts. CalEEMod utilizes widely accepted models for emissions estimates combined with appropriate default data that can be used if site-specific information is not available. For example, CalEEMod incorporates USEPA-developed emission factors; CARB's on-road and off-road equipment emission models, such as EMFAC and OFFROAD;[26] and studies commissioned by other California agencies, such as the CEC and CalRecycle.

Construction Emissions Methodology

As project-specific modeling inputs, the square footage of the proposed project's new buildings and demolition area was estimated. The total acreage subject to construction activities also was estimated based on the proposed site plan. Through CalEEMod, the SCAQMD construction survey was used to estimate default off-road equipment lists (type and number) based on the total project acreage. The modeling software then calculated the exhaust emissions from the equipment based on CARB's OFFROAD methodology, which calculates emissions using emission factors by season, average horse power of equipment by equipment type and engine tier, load factor, and activity duration. As such, CalEEMod inputs reflect the types and quantities of construction equipment that would be used to complete the proposed construction activities. Emissions from the

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[25] In APR-2025, the San Joaquin Valley Air Pollution Control District (SJVAPCD) concluded that "all GHG emission increases resulting from the combustion of any fuel produced, imported and/or delivered in California are mitigated under Cap-and-Trade … Therefore, GHG emission increases caused by fuel use (other than jet fuels) are determined to have a less than significant impact on global climate change under CEQA." Nonetheless, this analysis quantifies all project-related emissions and conservatively assumes that they are not otherwise reduced to levels of insignificance via CARB's Cap-and-Trade Program.

[26] EMFAC is an emissions factor model used to calculate emissions rates from on-road vehicles (e.g., passenger vehicles; haul trucks). OFFROAD is an emissions factor model used to calculate emission rates from off-road mobile sources (e.g., construction equipment).

construction activities were calculated for each of the construction phases, with the construction estimated to commence in 2020 and conclude in 2034.

Operational Emissions Methodology

Analysis of the project's operational GHG emissions considers five source types: (1) mobile; (2) area; (3) energy; (4) waste; and (5) water. Mobile source emissions are generated by motor vehicle trips to and from the project site. Area source emissions are generated by, among other things, landscape and maintenance equipment, natural gas fireplaces, and the use of consumer products. Energy source emissions are generated as a result of activities in buildings for which natural gas and electricity are used. Waste source emissions are associated with the energy required for disposal of solid waste into landfills. Water source emissions are associated with the energy required for supplying and treating the water and waste water.

Because this project is a long-term campus master plan, details related to specific buildings, such as floor plans, appliances, landscaping, maintenance schedule and equipment are only defined at a conceptual level. To provide a reasonable estimation of the project's operational emissions, the following assumptions were used in CalEEMod:

- Overall project size was calculated by totaling the approximate square footage of the new buildings. This provides the basis for area and energy emission calculations.
    - Conservatively, the demolition and redevelopment of existing buildings with new buildings was not accounted for in the analysis. In other words, all square footage is assumed to be new, additional square footage associated with the proposed project, even though some existing, less efficient square footage will be replaced with new, more efficient square footage.
    - Conservatively, the analysis assumes compliance with existing building energy efficiency standards (e.g., California Code of Regulations, Title 24, Parts 6 and 11), even though it is reasonably anticipated that those standards will be improved and require further efficiencies over the course of the proposed project's build-out timeframe.
- No woodstoves and no fireplaces.
- CalEEMod default emission factors for consumer products.
- CalEEMod default emission factors for area architectural coatings, which reflects compliance with SCAQMD Rule 1113.
- CalEEMod default emission factors for landscape equipment.
- Vehicular trips:
    - Student Enrollment, High School, and Day Care Center: CalEEMod defaults.

- Student Housing: 1.42 daily trips per bed per day, based on specialized student housing daily trip rates (CSU Los Angeles Student Housing EIR, Traffic Study, December 2016).
- University Village: CalEEMod default with 10 percent reduction accounting for internal trip capture. This is more conservative than ITE's recommended internal capture rate for mixed-use developments.
- Trip lengths were based on CalEEMod default for all trip purposes, which provides conservative assumption based on county average.

The emissions inventory modeling estimated the project's operational emissions in Interim Year 2025 and Buildout Year 2035.

Project Design Elements

As discussed in Section 2.0, Project Description, of this EIR, the project would encompass three major areas of campus-related development: (1) the Core Campus with academic facilities; (2) the planned new University Village; and (3) the StubHub Center stadium seating increase for 3,000 spectators. The project retains the current campus enrollment of 20,000 full-time-equivalent students (FTES), while providing a framework for development of campus and its facilities to accommodate campus enrollment growth from its current enrollment of approximately 11,000 FTES to 20,000 FTES over a planning horizon extending to 2035.

As discussed above, CSUDH has prepared its Guidelines for the 2018 Campus Master Plan to support and advance the University's vision of developing a vital campus that supports the facilities, buildings, improvements, and services needed for a top-performing model urban university to serve up to 20,000 full-time students. The major goals and strategies are described in detail in the Guidelines, and include:

- Infrastructure that moves the campus toward Zero-Net Energy;
- Annual energy-use-per-square-foot performance targets for common campus building types;
- Reduced use of water sources that have energy-intensive content related to treatment and conveyance;
- Mixed-use and transportation-oriented development which reduces single-occupant vehicle trips and creates a more vibrant, walkable community;
- Creating policies and education to move the campus towards net zero waste; and
- Creating a healthy and equitable campus environment for all its occupants.

The proposed project also would benefit from CSU's 2014 Sustainability Policy and existing initiatives implemented by CSUDH's Office of Sustainability, which fall into eight major categories: (1) energy use; (2) water management; (3) waste management; (4)

landscaping; (5) transportation; (6) procurement; (7) academics; and, (8) engagement.[27] While the goals and strategies of the 2018 Guidelines and CSU's 2014 Sustainability Policy, and efforts of CSUDH's Office of Sustainability are not quantitatively accounted for in the emissions modeling results presented below, their implementation would beneficially influence (i.e., reduce) the project's generation of GHG emissions.

Significance Thresholds

The analysis provided in this section evaluates the significance of the proposed project's GHG emissions by reference to the following questions from Section VII, Greenhouse Gas Emissions, of Appendix G of the CEQA Guidelines:

Threshold 1: Would the project generate GHG emissions, either directly or indirectly, that may have a significant impact on the environment?

Threshold 2: Would the project conflict with an applicable plan, policy or regulation adopted for the purpose of reducing the emissions of GHGs?

In applying these thresholds, reference is made to CEQA Guidelines Section 15064.4(b)(1)-(3), which provides that a lead agency should consider the following factors, among others, when assessing the environmental significance of GHG emissions: (1) the extent to which a project increases or reduces GHG emissions as compared to the existing environmental setting; (2) whether project emissions exceed a significance threshold that the lead agency determines is applicable; and, (3) whether a project complies with regulations or requirements adopted to implement a statewide, regional or local plan for the reduction of GHG emissions.

In addition, CEQA Guidelines Section 15064(h)(3) provides that: "A lead agency may determine that a project's incremental contribution to a cumulative effect is not cumulatively considerable if the project will comply with the requirements in a previously approved plan or mitigation program … that provides specific requirements that will avoid or substantially lessen the cumulative problem within the geographic area in which the project is located."

To assess the significance of the proposed project's GHG emissions relative to the identified thresholds, this section utilizes quantitative and qualitative information to support the significance determination presented herein. This approach is in accordance with CEQA Guidelines Section 15064.4(a), which affirms the discretion of a lead agency to determine, in the context of a particular project, whether to use quantitative and/or qualitative methodologies to determine the significance of a project's impacts.

[27] For more information regarding CSUDH's Office of Sustainability and its campus initiatives, please see https://www.csudh.edu/sustainability/campus-initiatives/.

Project Impacts

Would the project generate GHG emissions, either directly or indirectly, that may have a significant impact on the environment?

The project's GHG emissions, as calculated using CalEEMod, are presented in **Table 3.5-2**. The supporting worksheets and calculations are included in **Appendix B.2**.

As shown in **Table 3.5-2**, the project is estimated to generate a total of 19,169 MT CO_2e over the course of its construction period (2020 to 2034); these are one-time emissions associated with the project. During the Interim Year (2025), the project is estimated to generate a total of 30,689 MT CO_2e per year from operational activities. Upon reaching build-out in 2035, the proposed project is estimated to generate a total of 53,813 MT CO_2e per year from operational activities.[28] The Interim Year (2025) and Buildout Year (2035) emissions are annual emissions that would occur over the life of the project; however, it is reasonably expected that the annual emissions estimate would decrease with time, as technology evolves and regulatory advancements occur.

Table 3.5-2
Estimated Project-Related Greenhouse Gas Emissions
(metric tons/year)

Emissions Period	CO_2e
Total Construction Emissions	19,169
Interim Year 2025 Operational Emissions	
Area	18
Energy	6,888
Vehicular Emissions	21,316
Waste	835
Water	1,632
Total Annual Operational Emissions in Interim Year 2025	30,689
Buildout Year 2035 Operational Emissions	
Area	45
Energy	14,108

[28] Conservative, "worst-case" conditions were used to estimate the operational GHG emissions associated with the proposed project's mobile sources (e.g., passenger vehicles), whereby all of the vehicular trips generated by the project are treated as new additional trips to the region. However, it is important to note that it is highly unlikely that those vehicular trips, and their emissions, will be entirely additive to the region. Since the proposed project provides for housing next to existing business park facilities and in proximity to core academic facilities on the CSUDH, and because this housing will be made available to the University faculty, staff and general rental housing market, its effect will most likely enable more people who work at the University and future employees of the business park to live on campus, which will reduce mobile emissions from commuting

Table 3.5-2
Estimated Project-Related Greenhouse Gas Emissions
(metric tons/year)

Emissions Period	CO_2e
Vehicular Emissions	35,262
Waste	1,817
Water	2,581
Total Annual Operational Emissions in Buildout Year 2035	53,813

Based on **Table 3.5-2** above, this EIR concludes that the proposed project's generation of one-time construction and annual operational GHG emissions may result in a potentially significant impact to global climate change because of the project's incremental contribution to the cumulative condition.

Would the project conflict with an applicable plan, policy or regulation adopted for the purpose of reducing the emissions of GHGs?

First, the proposed project would be consistent with CSU's 2014 Sustainability Policy as the Guidelines for the 2018 Campus Master Plan establish a framework for systematic sustainability as the campus pursues development and redevelopment. The Guidelines address all pertinent facets of the campus' GHG emissions-generating sources, and call for implementation of meaningful, achievable sustainability strategies. To ensure that the Guidelines are implemented as campus development proceeds in furtherance of this project, a mitigation measure set forth below requires the campus to oversee and monitor compliance with the Guidelines, as specified.

Second, the proposed project would be consistent with SCAG's RTP/SCS because it would increase student housing on campus, which will work to reduce student commuter trips on the existing roadway networks. In addition, the proposed project also provides ~~market-rate~~campus apartment housing and retail uses together with the campus business park, which is consistent with the strategy to match housing with job centers. The ~~market-rate~~campus apartment housing also may be occupied by campus faculty, staff and students, which would advance SCAG's policy to support the co-location of live-and-work opportunities. As such, the project is consistent with SCAG's policies that call for focusing growth and development within urban areas, encouraging infill development, and encouraging sustainable development that contributes to reducing adverse air quality and GHG impacts. For more information on the project's infill setting, please see Section 2.0 of this EIR; and, for more information on campus enrollment levels, and housing creation and employment opportunities, please see Section 3.7 of this EIR.

Third, the proposed project would be consistent with statewide efforts to reduce GHG emissions because it would accommodate projected growth and site development in an infill setting, while implementing enhanced sustainability standards that exceed existing code-based requirements. In its Second Update (page 81), CARB recognized the

importance of "[a]ccelerating equitable and affordable transit-oriented and infill development" and pursuing "significant infill promotion strategies and removal of infill development barriers." The proposed project advances these efforts by proposing campus-related development, which includes complementary academic, housing and non-residential uses, within an infill setting in a portion of Southern California that is experiencing a housing shortage.

Mitigation Measures

In an effort to minimize the generation of GHG emissions, and in addition to existing sustainability practices implemented at the CSUDH campus:

GHG-1: All project-related development shall comply with applicable standards set forth in Chapter 6, Sustainability Guidelines, of the Guidelines for the 2018 Campus Master Plan. The CSUDH Department of Facilities Services, Office of Sustainability, shall be responsible for reviewing and confirming that all building plans, infrastructure, improvements, and other facets of the project's campus-related development are: (i) consistent with the Guidelines (either by implementing the applicable standards in the Guidelines "as is," or by implementing other strategies that are of equivalent or greater effectiveness, based on the Office of Sustainability's review of technical evidence prepared by a qualified sustainability/GHG emissions consultant), and (ii) do not impair the campus' ability to achieve the goals and objectives of CSU's 2014 Sustainability Policy. The Office of Sustainability shall complete its review of project-related development activities and approval shall be granted by the campus' Deputy Building Official prior to commencement of any project-related ground disturbance activities.

It also is noted that the proposed project's construction-related GHG emissions would be reduced through implementation of the mitigation strategies recommended in Section 3.2, Air Quality, of this EIR. Those mitigation measures require use of a clean construction fleet that exceeds existing regulatory requirements.

Similarly, the Transportation Demand Management (TDM) Plan set forth in Section 3.9, Traffic and Circulation, of this EIR would reduce the proposed project's operational-related GHG emissions. As described therein, the TDM Plan shall reduce vehicle trips and increase the use of transit, bicycling and pedestrian use on campus, which serves to result in co-benefits in the form of emission reductions. The TDM Plan beneficially reduces tailpipe emissions from project-related mobile sources by setting forth employee and student rideshare opportunities; enhancing pedestrian and bicycle access; and, requiring transit-enabling improvements. Ultimately, the TDM Plan will guide CSUDH in its efforts to improve environmental sustainability, shift the fundamental nature of the campus away from being almost exclusively a "commuter" school, maximize its transportation resources, and provide specific strategies to enable the University to invest in a transportation system that supports all modes of travel. Because project-related mobile sources are the primary contributor of operational emissions, implementation of the TDM Plan will serve to achieve GHG emission reductions.

Level of Impact After Mitigation

Based on **Table 3.5-2** above, the proposed project's vehicular emissions account for approximately 66 percent of the annual GHG emissions total in the Buildout Year (2035). The second highest contributor to the project's GHG emissions profile in the Buildout Year (2035) is energy-related consumption, which accounts for approximately 26 percent of the annual GHG emissions total. The two mitigation measures set forth above address these two primary contributors, which — when combined — are responsible for 92 percent of the project's GHG emissions profile, by requiring that campus-related development associated with the proposed project: (i) comply with design standards, criteria and goals that would enhance the efficiency of the built environment; and (ii) benefit from the implementation of a comprehensive TDM Plan that serves to reduce the use of single-occupancy vehicles to travel to and from the campus. While these types of mitigation measures are recognized for the ability to effectively reduce GHG emissions, the reductions have not been quantified at this time for reasons previously discussed.

Therefore, because of the incremental increase in campus-related GHG emissions, the analysis presented in this EIR conservatively concludes that the proposed project's GHG emissions would significantly impact the environment, even with implementation of the mitigation measures identified above. As such, the project's GHG emissions would result in a significant and unavoidable impact.

In reaching this conclusion, several factors are acknowledged.

First, scientifically speaking, there is no known numeric value that determines the environmental significance of an individual project's GHG emissions. As such, the conclusion rendered above is conservative.

Second, the emissions inventory data presented for the proposed project serves to over-estimate GHG emissions because it does not quantitatively account for: (1) existing CSU and CSUDH campus sustainability initiatives that would reduce the emissions associated with project-related development; (2) efficiency enhancements to the campus that will reduce the project's GHG emissions profile as a result of the demolition and replacement of existing, aging buildings with buildings benefiting from new technologies; (3) reductions in vehicle miles travelled and corresponding mobile source emissions attributable to the TDM Plan; and, (4) reasonably foreseeable technological advancements and regulatory standards, such as the 2019 Title 24 standards for residential and non-residential development and the increasing use of zero emission vehicles.

Third, as discussed above, the proposed project's emissions profile is based on a worst-case condition whereby all campus-related trips assigned to the project's land uses are assumed to be new vehicle trips for the region, even though the project likely would serve to reduce the number of existing trips and trip lengths.

Fourth, the project's proposal to accommodate projected growth for residential, educational and employment opportunities within an infill setting in the City of Carson is

consistent with State and regional policy direction on the role of land use with respect to achievement of GHG reduction goals.

Each of these factors evidence that the approach taken and conclusion reached rely on conservative principles.

3.6 Noise

This section evaluates the potential short-term construction and long-term noise impacts associated with the California State University, Dominguez Hills (CSUDH) 2018 Campus Master Plan (Master Plan or proposed project). This section has been prepared based upon information from the Noise Analysis Technical Report, a copy of which is located in **Appendix E.1**, which analyzes the potential noise impacts associated with the proposed project.

Fundamentals of Sound and Environmental Noise

Sound levels are expressed on a logarithmic scale of decibels (abbreviated as dB), in which a change of 10 units on the decibel scale reflects a 10-fold increase in sound energy. A 10-fold increase in sound energy roughly translates to a doubling of perceived loudness.

Sound occurs over a wide range of frequencies. However, not all frequencies are detectable by the human ear; therefore, an adjustment is made to the high and low frequencies to approximate the way an average person hears traffic sounds. This adjustment is called A-weighting and is expressed as "dBA." People commonly judge the relative magnitude of sound sensation using subjective terms such as "loudness" or "noisiness." A change in sound level of three dBA is considered barely perceptible, a change in sound level of five dBA is considered readily perceptible, and an upward change of 10 dBA is recognized as twice as loud. Examples of typical noise levels for common indoor and outdoor activities are depicted in **Table 3.6-1**.

Community decibel levels are reported as both Community Equivalent Noise Levels (dBA, CNEL) and Leq (h) dBA. The CNEL is a 24-hour weighted noise average with five dBA adjustment upward added to the sound levels that occur during evening hours and 10 dBA add to nighttime hours, the penalties are intended to account for greater sensitivity to noise during these hours. The equivalent sound level "Leq" is also referred to as the time-average sound level. Leq can be used to represent the average of equivalent sound level for noise generated by traffic given that traffic sound levels are never constant due to the changing number, type and speed of vehicles.

For the purpose of the project, analyses were conducted using both CNEL and Leq approaches. The CNEL analyses were conducted for weekday conditions because the Master Plan would generate traffic through the day. The CNEL would be an appropriate approach which would account for the overall impacts of the developments. In addition, Leq analyses were also conducted specifically for Sunday conditions to determine the noise impacts during events periods at the StubHub Center. Because sporting or entertainment events typically occur during a few hours of the day, the use of Leq would better account for the surge in traffic and the associated noise, and would thus provide a more conservative analysis in this context.

Table 3.6-1
Common Sound/Noise Levels

Common Sound/Noise Levels		
Outdoor	**dB(A)**	**Indoor**
Air Horn	110	Rock/Blues Band
Jet Flyover at 1000 feet		Baby Crying
Leaf Blower	100	Subway
Gas Weed Eater		Fire Alarms
Riding Lawn Mower	90	Blender
Gas Edger		Crowded Restaurant
Police Whistle	80	Disposal at 3 Feet
Air Conditioner Compressor		Shouting at 3 Feet
	70	
		Normal Conversation at 3 Feet
Normal Conversation at 3 Feet	60	Clothes Dryer at 3 Feet
Babbling Brook		Large Business Office
Quiet Urban (Daytime)	50	Refrigerator
Quiet Urban (Nighttime)	40	Quiet Office/Library
Wilderness	30	
	20	Recording Studio
	10	Threshold of Hearing

Source: Caltrans, 1998.

Environmental Setting

Regulatory Framework

Federal Regulations

Federal Interagency Committee on Noise

The Federal Interagency Committee on Noise (FICON) was initiated by Federal Aviation Administration (FAA) and Environmental Protection Agency (EPA) in 1991 to assess the

noise impacts around airports. In 1992, FICON published its findings in a report entitled *Federal Agency Review of Selected Airport Noise Analysis Issues*.[1]

The FICON had established significance criteria for noise impacts using a sliding scale based on the existing Ldn noise levels. The Ldn is a 24-hour average noise level with 10 decibel penalty added to the nighttime period from 10:00 p.m. to 7:00 a.m. The level of significance under the criteria changes with increasing noise exposure, such that smaller changes in ambient noise levels result in a significant impact at higher existing noise levels. These criteria are shown in **Table 3.6-2**.

Table 3.6-2
Noise Impact Significance Criteria

Existing Ldn	Significant Impact
Below 60 dBA	+5.0 dBA or more
60 - 65 dBA	+3.0 dBA or more
Above 65 dBA	+1.5 dBA or more

Source: FICON - Federal Government's Method of Assessing Noise Impacts.

State Regulations

Land Use Compatibility for Community Noise Exposure

The State of California has adopted noise compatibility guidelines for general land use planning. The types of land uses addressed by the state standards and the acceptable noise categories for each land use are included in the *State of California General Plan Guidelines, Appendix D: Noise Element Guidelines* (State Noise Guidelines), which is published and updated by the Governor's Office of Planning and Research. The level of acceptability of the noise environment is dependent upon the activity associated with each particular land use. **Table 3.6-3** provides the exterior noise guidelines associated with various land uses, as set forth by the State.

[1] Federal Interagency Committee on Aviation Noise, https://fican1.files.wordpress.com/2015/10/reports_noise_analysis.pdf.

Table 3.6-3
Land Use Compatibility for Community Noise Exposure

Land Use	Community Exposure Level, CNEL (dBA)			
	Normally Acceptable	Conditionally Acceptable	Normally Unacceptable	Clearly Unacceptable
Residential: Low-Density Single-Family, Duplex, Mobile Homes	50–60	55–70	70–75	Above 75
Residential: Multi-Family	50–65	60–70	70–75	Above 75
Transient Lodging: Motels, Hotels	50–65	60–70	70–80	Above 80
Schools, Libraries, Churches, Hospitals, Nursing Homes	50–70	60–70	70–80	Above 80
Auditoriums, Concert Halls, Amphitheaters	—	50–70	—	Above 65
Sports Arena, Outdoor Spectator Sports	—	50–75	—	Above 70
Playgrounds, Neighborhood Parks	50–70	—	67.5–75	Above 72.5
Golf Courses, Riding Stables, Water Recreation, Cemeteries	50–75	—	70–80	Above 80
Office Buildings, Business Commercial and Professional	50–70	67.5–77.5	Above 75	—
Industrial, Manufacturing, Utilities, Agriculture	50–75	70–80	Above 75	—

Normally Acceptable: Specified land use is satisfactory, based upon the assumption that any buildings involved are of normal conventional construction, without any special noise insulation requirements.

Conditionally Acceptable: New construction or development should be undertaken only after a detailed analysis of the noise reduction requirements is made and needed noise insulation features included in the design. Conventional construction, but with closed windows and fresh air supply systems or air conditioning, will normally suffice.

Normally Unacceptable: New construction or development should generally be discouraged. If new construction or development does proceed, a detailed analysis of the noise reduction requirements must be made and needed noise insulation features included in the design.

Clearly Unacceptable: New construction or development should generally not be undertaken.

Source: Office of Planning and Research, State of California General Plan Guidelines, Appendix D: Noise Element Guidelines, Figure 2, p. 374, July 2017.

Local Regulations

As a state agency, CSU is not subject to local plans, policies, and guidelines. Nonetheless, for information purposes, the City of Carson (General Plan, Chapter 3) specifies that the standards for exterior noise levels at residential locations should not exceed a CNEL of 65 dBA while the interior levels should not exceed CNEL of 45 dBA. This exterior noise level also falls within the range of acceptable conditions (55 to 70 dBA) set by the California Department of Health Services. In addition, the City's Noise

Ordinance specifies standards related to construction noise, provides various measures to reduce nuisance noise from construction projects, including the requirement to limit construction activities near residential units, and employing feasible and practical techniques that minimize the noise impact to adjacent uses.

Existing Conditions

Project Site

The CSUDH 344-acre campus is located within the City of Carson, in the County of Los Angeles.

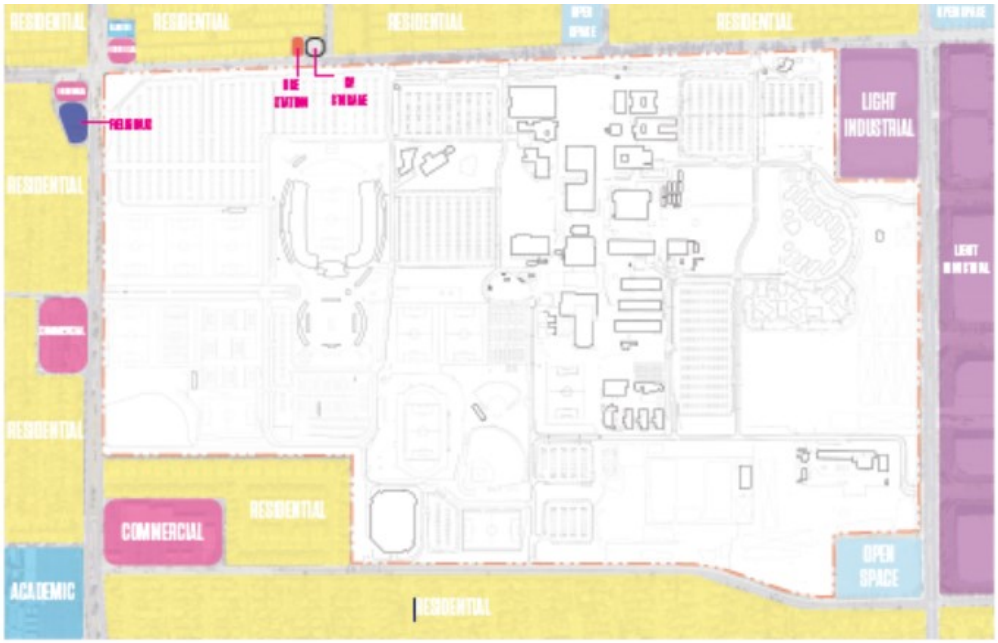
Figure 3.6-1 is an aerial photograph of the current campus, bounded on the north by Victoria Street, on the south by University Avenue, on the west by Avalon Boulevard, and on the east by Central Avenue. This figure also shows the area of the campus leased to StubHub Center's parent company, Anchutz Entertainment Group (AEG), for the StubHub Center — an athletics and entertainment venue for soccer, tennis, track and field, and cycling, including the 27,000-seat stadium and associated parking.

Figure 3.6-1
Aerial Photograph of CSU Dominguez Hills Campus, 2016

The area surrounding the CSUDH campus is comprised primarily of existing residential development on the north across from Victoria Street; on the south across from University Avenue; and on the west across from Avalon Boulevard. Except for the existing Pueblo Dominguez student housing on the eastern side of the campus comprising 649 beds and associated parking, significant portions of the east side campus are underutilized and available for development. Light industrial development is to the

northeast and to the east across from Central Avenue. **Figure 3.6-2** illustrates existing land uses surrounding the CSUDH campus.

Figure 3.6-2
Surrounding Land Uses



Since its inception, the CSUDH campus has been planned to accommodate 20,000 full-time equivalent students (FTES). This target student capacity remains the target under the 2018 Campus Master Plan. At this time, the total existing campus physical capacity with all of its classrooms, laboratories, and other instructional space is at a level that will support approximately 11,000 FTES. The 2018 Guidelines make clear, however, that a number of the buildings on campus have reached the end of their useful life due to their age or condition. Further, as the student population increases to 20,000 FTES, the campus must add additional space to accommodate the increase in the number of students.

Sensitive Receptors in the Surrounding Area

Some land uses are considered more sensitive to intrusive noise than others based on the types of activities typically involved at the receptor location. Uses that are sensitive to noise include residences, schools, hospitals, and senior citizen facilities. In addition, a "frequent use" outdoor area where people congregate for recreation or other purposes can be sensitive to noise. Frequent use areas include the backyards of single-family residences, outdoor recreation areas in multi-family complexes, active or passive recreational areas in parks, and play areas at schools.

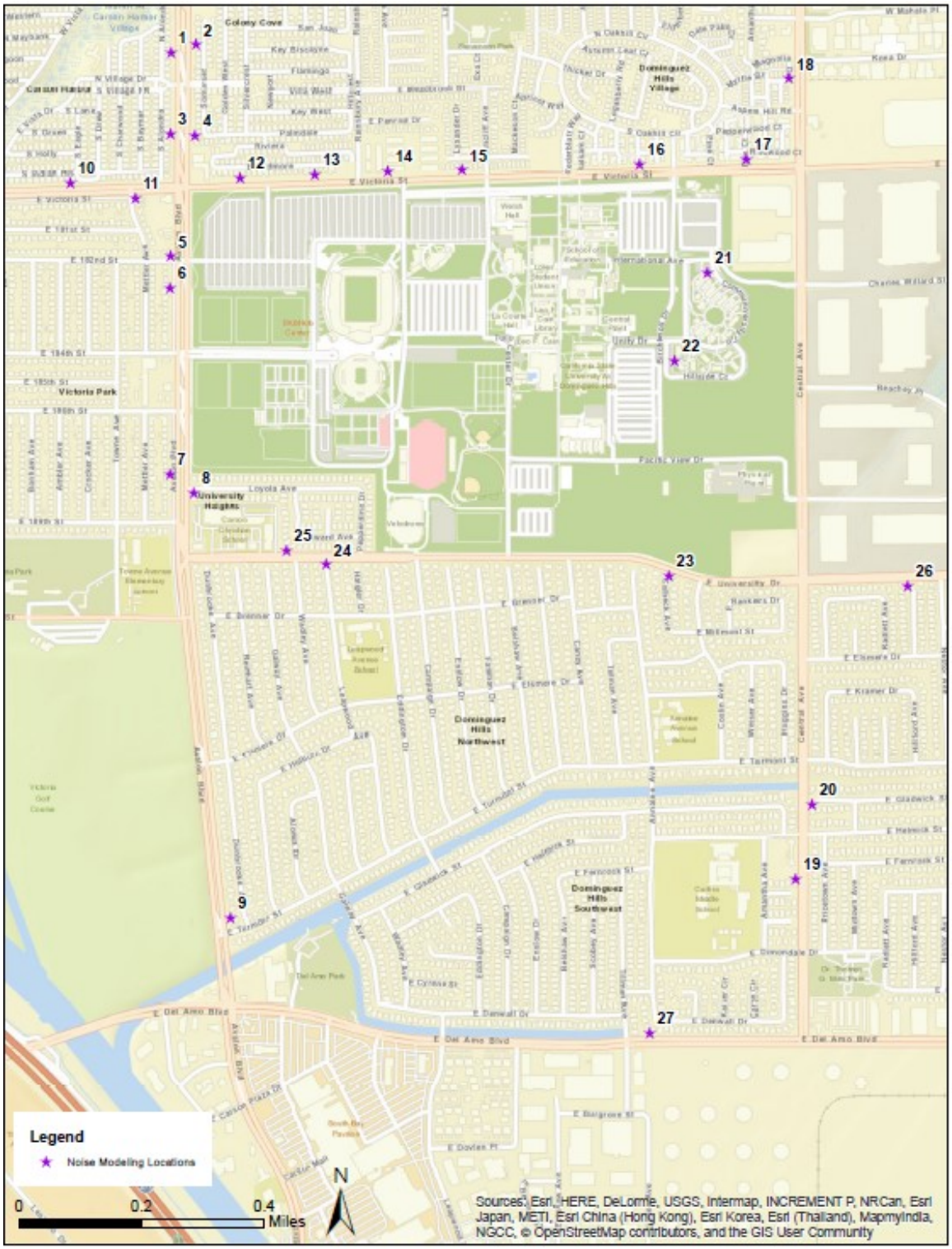
Based on traffic pattern and land use review in the vicinity of the project site, a total of 27 locations were selected to represent the noise-sensitive receptors around the campus.

These 27 receptor sites were selected due to their location and exposure to traffic noise from the roadways and parking lots. The locations of the receptor sites are listed in **Table 3.6-4** and are shown in **Figure 3.6-3**. Noise levels were modeled at the 27 receptor sites. The 27 noise-sensitive receptor sites are near parking lots and along roadway links that could be affected by the increase in traffic resulting from campus development pursuant to the Master Plan.

Table 3.6-4
Modeled Noise Sensitive Receptors

#	Roadway	To	From
1	Southbound (SB) Avalon Blvd	SR-91	Harbor Village
2	Northbound (NB) Avalon Blvd	Harbor Village	SR-91
3	SB Avalon Blvd	Harbor Village	Victoria St
4	NB Avalon Blvd	Victoria St	Harbor Village
5	SB Avalon Blvd	Victoria St	182nd St/Entrance A
6	SB Avalon Blvd	182nd St/Entrance A	184th St/Entrance B
7	SB Avalon Blvd	184th St/Entrance B	University Dr
8	NB Avalon Blvd	University Dr	184th St/Entrance B
9	NB Avalon Blvd	Del Amo Blvd	University Dr
10	Westbound (WB) Victoria St	Avalon Blvd	Main St
11	Eastbound (EB) Victoria St	Main St	Avalon Blvd
12	WB Victoria St	Entrance C	Avalon Blvd
13	WB Victoria St	Rainsbury Ave	Entrance C
14	WB Victoria St	Entrance D	Rainsbury Ave
15	WB Victoria St	Tamcliff Ave	Entrance D
16	WB Victoria St	Birchknoll Dr	Tamcliff Ave
17	WB Victoria St	Central Ave	Birchknoll Dr
18	SB Central Ave	SR-91	Victoria St
19	SB Central Ave	University Dr	Del Amo Blvd
20	NB Central Ave	Del Amo Blvd	University Dr
21	Basketball Court at CSUDH Housing	Parking Lot 1, 2 and 8	Entrance G
22	CSUDH Housing nearest to Lot 7	Parking Lot 7 and 8	Entrance H
23	WB University Dr	Avalon Blvd	Entrance I
24	EB University Dr	Entrance I	Avalon Blvd
25	WB University Dr	Entrance I	Central Ave
26	WB University Dr	Central Ave	Wilmington Ave
27	WB Del Amo Blvd	Central Ave	Avalon Blvd

Figure 3.6-3
Modeled Noise Sensitive Receptors Location



Existing Ambient Noise Levels

Under the existing conditions, two analyses were conducted to account for the worst case scenario: 1) weekday analysis, and 2) Sunday during pre-event and post-event periods at the StubHub Center. Existing peak hour noise levels at the 27 receptors were calculated using the Federal Highway Administration's Traffic Noise Model (TNM), version 2.5, which computes highway traffic noise at nearby receivers. To obtain the ambient noise levels, a.m. and p.m. peak hours, and pre-event and post-event existing traffic volumes from the Transportation Impact Study prepared for this EIR (see **Appendix F.1**) were used as the base input for calculating the noise levels at the 27 receptor locations. The weekday CNEL levels were calculated from the TNM peak hour noise levels.

The results of the noise modeling at the 27 receptor sites indicate that in the existing noise levels in the project vicinity range from 51.4 to 68.69 dBA, as summarized in **Table 3.6-5**.

Table 3.6-5
Existing Weekday Noise Level

#	Roadway	To	From	CNEL (dBA)
1	SB Avalon Blvd	SR-91	Harbor Village	56.1
2	NB Avalon Blvd	Harbor Village	SR-91	57.9
3	SB Avalon Blvd	Harbor Village	Victoria St	57.0
4	NB Avalon Blvd	Victoria St	Harbor Village	61.5
5	SB Avalon Blvd	Victoria St	182nd St/Entrance A	67.7
6	SB Avalon Blvd	182nd St/Entrance A	184th St/Entrance B	67.3
7	SB Avalon Blvd	184th St/Entrance B	University Dr	67.5
8	NB Avalon Blvd	University Dr	184th St/Entrance B	68.6
9	NB Avalon Blvd	Del Amo Blvd	University Dr	58.2
10	WB Victoria St	Avalon Blvd	Main St	58.9
11	EB Victoria St	Main St	Avalon Blvd	63.5
12	WB Victoria St	Entrance C	Avalon Blvd	60.4
13	WB Victoria St	Rainsbury Ave	Entrance C	60.0
14	WB Victoria St	Entrance D	Rainsbury Ave	66.3
15	WB Victoria St	Tamcliff Ave	Entrance D	60.3
16	WB Victoria St	Birchknoll Dr	Tamcliff Ave	55.3
17	WB Victoria St	Central Ave	Birchknoll Dr	59.6
18	SB Central Ave	SR-91	Victoria St	57.5
19	SB Central Ave	University Dr	Del Amo Blvd	67.1
20	NB Central Ave	Del Amo Blvd	University Dr	60.2

Table 3.6-5
Existing Weekday Noise Level

#	Roadway	To	From	CNEL (dBA)
21	Basketball Court at CSUDH Housing	Parking Lot 1, 2 and 8	Entrance G	51.4
22	CSUDH Housing nearest to Lot 7	Parking Lot 7 and 8	Entrance H	53.9
23	WB University Dr	Avalon Blvd	Entrance I	61.8
24	EB University Dr	Entrance I	Avalon Blvd	59.3
25	WB University Dr	Entrance I	Central Ave	58.2
26	WB University Dr	Central Ave	Wilmington Ave	54.7
27	WB Del Amo Blvd	Central Ave	Avalon Blvd	57.9

During pre-event and post-event conditions on Sunday, the noise levels generated by sporting events at the existing StubHub Center stadium ranges from 49.8 dBA to 68.5 dBA, as summarized in **Table 3.6-6**.

Table 3.6-6
Existing Sunday Pre-Event & Post-Event
(27,000-Seat Event) Noise Levels

#	Roadway	To	From	Sunday (27,000-Seat Event) Peak One Hour Leq (dBA)	
				Pre-Event	Post-Event
1	SB Avalon Blvd	SR-91	Harbor Village	57.2	54.8
2	NB Avalon Blvd	Harbor Village	SR-91	57.6	58.1
3	SB Avalon Blvd	Harbor Village	Victoria St	57.6	55.1
4	NB Avalon Blvd	Victoria St	Harbor Village	61.4	61.3
5	SB Avalon Blvd	Victoria St	182nd St/Entrance A	65.9	65.8
6	SB Avalon Blvd	182nd St/Entrance A	184th St/Entrance B	66.3	65.2
7	SB Avalon Blvd	184th St/Entrance B	University Dr	66.9	66.5
8	NB Avalon Blvd	University Dr	184th St/Entrance B	68.5	67.1
9	NB Avalon Blvd	Del Amo Blvd	University Dr	57.9	56.6
10	WB Victoria St	Avalon Blvd	Main St	62.6	62.1
11	EB Victoria St	Main St	Avalon Blvd	61.6	59.1
12	WB Victoria St	Entrance C	Avalon Blvd	61.0	57.7
13	WB Victoria St	Rainsbury Ave	Entrance C	60.3	57.6
14	WB Victoria St	Entrance D	Rainsbury Ave	66.1	63.7

Table 3.6-6
Existing Sunday Pre-Event & Post-Event
(27,000-Seat Event) Noise Levels

#	Roadway	To	From	Sunday (27,000-Seat Event) Peak One Hour Leq (dBA)	
				Pre-Event	Post-Event
15	WB Victoria St	Tamcliff Ave	Entrance D	56.8	59.1
16	WB Victoria St	Birchknoll Dr	Tamcliff Ave	49.8	54.1
17	WB Victoria St	Central Ave	Birchknoll Dr	53.6	58.4
18	SB Central Ave	SR-91	Victoria St	54.9	53.7
19	SB Central Ave	University Dr	Del Amo Blvd	63.5	63.4
20	NB Central Ave	Del Amo Blvd	University Dr	56.5	56.2
21	Basketball Court at CSUDH Housing	Parking Lot 1, 2 and 8	Entrance G	51.9	56.8
22	CSUDH Housing nearest to Lot 7	Parking Lot 7 and 8	Entrance H	55.5	53.2
23	WB University Dr	Avalon Blvd	Entrance I	57.4	57.7
24	EB University Dr	Entrance I	Avalon Blvd	57.0	56.7
25	WB University Dr	Entrance I	Central Ave	55.5	57.0
26	WB University Dr	Central Ave	Wilmington Ave	54.8	58.7
27	WB Del Amo Blvd	Central Ave	Avalon Blvd	54.1	54.1

Environmental Impacts

Significance Thresholds

Based on Appendix G of the CEQA Guidelines and other relevant criteria, the determination of whether the proposed project would have a potentially significant impact related to noise is based on the following criteria:

Threshold 1: Would the project result in generation of a substantial temporary or permanent increase in ambient noise levels in the vicinity of the project in excess of standards established in the City of Carson General Plan or noise ordinance (Chapter 1, Section 4101), or applicable standards of other agencies?

Threshold 2: Would the project result in generation of excessive ground-borne vibration or ground-borne noise levels?[2]

Threshold 3: For a project located within the vicinity of a private airstrip or an airport land use plan or, where such a plan has not been adopted, within 2 miles of a public airport or public use airport, would the project expose people residing or working in the project area to excessive noise levels?[2]

The Appendix G Thresholds 1, the City's General Plan and Noise Ordinance, and the FICON criteria were used to develop the following project-specific thresholds of significance.

For the proposed project's operational impacts, a significant noise impact would result if:

- The existing noise level is in excess of 65 dBA and the proposed project adds 1.5 dBA or more to the existing condition; or,
- The existing noise level is between 60 to 65 dBA and the proposed project adds 3.0 dBA or more to the existing condition, and thereby results in a noise level exceeding 65 dBA; or,
- The existing noise level is below 60 dBA and the proposed project adds 5.0 dBA or more to the existing condition, and thereby results in a noise level exceeding 65 dBA.

For short-term construction impacts, a significant noise impact would result if noise from construction activities associated with the proposed project results in:

- Noise levels in excess of 65 dBA at single-family residential areas and educational facilities between the hours of 7:00 a.m. and 8:00 p.m. daily (except Sundays and legal holidays), or if noise from construction activities exceeds 55 dBA between the hours of 8:00 p.m. and 7:00 a.m. daily.
- Noise levels in excess of 70 dBA at multi-family residential areas between the hours of 7:00 a.m. and 8:00 p.m. daily (except Sundays and legal holidays), or if noise from construction activities exceeds 60 dBA between the hours of 8:00 p.m. and 7:00 a.m. daily.
- Noise levels in excess of 55 dBA at single-family residential areas and 60 dBA at multi-family residential areas on Sundays and legal holidays.

[2] The Initial Study, dated August 2017 concluded there would be no impacts associated with this significance threshold; therefore, there is no further analysis of this significance threshold below.

Project Impacts

The following discussion addresses the analysis of the project-specific threshold described above, thus addressing Thresholds 1, 3, and 4, by first analyzing potential impacts associated with short-term construction activities, and then analyzing long-term operational impacts.

Short-Term Construction

Construction activities will result in a temporary increase in ambient noise levels in the vicinity of each individual construction site. During the construction period, noise from heavy equipment, power and air tools, compressors, trucks, and other noises from loading and unloading will occur with varying frequency and intensity. At a distance of 50 feet from the noise source, construction equipment noise levels (principally from engine exhaust and engine noise) range from 75 to 95 dBA for tractors, up to 95 dBA for construction trucks, up to 88 dBA for concrete mixers, and up to 87 dBA for compressors. These temporary noise levels will not be continuous but will vary as equipment is used for varying lengths of time throughout the construction period. During grading and other construction, peak noise levels at 50 feet would range from 75 to 90 dBA, with occasional higher peaks. Activities such as demolition would result in the highest noise levels, with the concrete saws producing the highest noise level around 90 dBA at 50 feet.

Noise levels fall substantially with increasing distance from the noise source, both as a result of spherical spreading of sound energy and absorption of sound energy by the air. Spherical spreading of sound waves reduces the noise of a point source by 6 decibels for each doubling of distance from the noise source. Absorption by the atmosphere typically accounts for a loss of one decibel for every 1,000 feet. Thus, high levels of construction noise usually are limited to the immediate vicinity of construction activities.

Construction activities would mainly occur on the eastern half of the campus, where most new buildings are proposed. Potential sensitive receptors that are outside of the campus include residential homes north of Victoria Street, and residential homes south of University Drive. Within the campus, potential sensitive receptors include the California Academy of Mathematics and Science School (CAMS) and the University's academic buildings at the center of the campus, the existing Pueblo Dominguez student housing village located at the eastern side of the campus (which would be demolished as part of the project), new student housing to be constructed, and the existing child care center located at the northeast the campus (which would be relocated to the southern edge of the campus).

Construction of the proposed project would be developed over two general development phases, and the construction activities for each development phase would not be continuous. Project construction would result in short-term increase in noise levels from both outdoor and indoor construction activities. Outdoor construction would include ground disturbing activities such as demolition, excavation, and grading, and the construction of the building structures; indoor construction would include activities such

as installation of plumbing, electrical, drywall, painting, flooring and other finish work. Construction activities producing the highest noise levels, such as demolition, would only occur at limited locations, where current parking lots or buildings exist, in short durations. All outdoor construction activities of the proposed project would be consistent with the City of Carson's Noise Ordinance, which limits construction to Monday-Saturday from 7:00 a.m. to 8:00 p.m. Any construction during Sundays and legal holidays would be done within enclosed structures and would include non-noise generating work such as painting, carpet laying, and fixture installation.

For the noise level from the operation of a concrete saw to dissipate below the 65 dBA threshold for single-family residential areas and educational facilities, the minimum distance required between the equipment and the sensitive receptor is approximately 380 feet. For the less stringent threshold of 70 dBA for multi-family residential areas, the minimum distance required is approximately 230 feet. Based on the proposed project land use plan, it is expected that some demolition activities would occur within 380 feet of single-family homes and educational facilities, and within 230 feet of on-campus student housing, and thus there is a likelihood of potential significant noise impacts associated with construction activities. Further, noise associated with the construction of the master plan build-out would potentially be in excess of acceptable levels due to overlap in construction activities and construction occurring concurrently at multiple sites within the campus. Therefore, short-term construction noise impacts resulting from the proposed project are considered significant.

Long-Term Operational

Based on traffic volume data, noise analyses were conducted to identify future traffic noise levels with and without the project. Future traffic noise levels and the contribution of the project-generated traffic to these future noise levels were calculated for the 27 receptor sites. Three separate comparisons were made to determine project-related noise impact. One comparison identifies the Master Plan's weekday impact under buildout conditions (with all planned development within the campus, including the ultimate development of University Village, and the student enrollment level of 20,000 FTES), and the other two comparisons identify impacts of the StubHub Center's 30,000-seat stadium event conditions on Sundays:

- Buildout Year 2035 With Project Weekday Conditions compared to Buildout Year 2035 Without Project Weekday Conditions;
- Existing Sunday With 30,000-Seat Event at the StubHub Center stadium compared to Existing Sunday With 27,000-Seat Event Conditions; and
- Year 2019 Sunday With 30,000-Seat Event compared to Year 2019 Sunday With 27,000-Seat Event Conditions

Weekday Noise

The weekday noise analyses were conducted using the CNEL method, and the results are summarized in **Table 3.6-7**, and illustrated in **Figure 3.6-4** and **Figure 3.6-5**. As shown,

under the Buildout Year 2035 With Project Conditions, the project-related increase in noise levels at the receptor sites range from 0.2 to 3.0 dBA. Under the Buildout Year 2035 With Project conditions, eight receptor sites were projected to experience noise levels above 65 dBA. Analysis shows that two of the eight receptor sites would exceed the significance threshold, resulting in significant project-related noise impacts:

- Site #14 WB Victoria St. – Existing noise level above 65 dBA, with project-related increase of 1.6 dBA; and
- Site #23 WB University Dr. – Existing noise level between 60 dBA and 65 dBA, with project-related increase of 3.0 dBA.

The remaining six of the eight receptor sites with projected noise levels of above 65 dBA would not be considered to have a significant project-related impact. This is because the project-related contributions to the increases in the noise levels would not exceed the significance threshold. Cumulative impacts identified in **Table 3.6-7** are addressed in the discussion of cumulative impacts below.

Table 3.6-7
Weekday Project Noise Impact Buildout Year 2035

Site	CNEL dBA			Change in dBA		Significant Impact?	
	Existing	2035 No Build	2035 Build	Cumulative (Build – Existing)	Project (Build – No Build)	Cumulative	Project
1	56.1	57.6	58.4	2.3	0.8	No	No
2	57.9	59.1	60.1	2.2	1.0	No	No
3	57.0	58.8	59.7	2.7	0.9	No	No
4	61.5	63.1	63.8	2.3	0.7	No	No
5	67.7	69.5	69.9	2.2	0.4	Yes	No
6	67.3	69.1	69.5	2.2	0.4	Yes	No
7	67.5	69.3	69.7	2.2	0.4	Yes	No
8	68.6	70.1	71.0	2.4	0.9	Yes	No
9	58.2	58.6	58.8	0.6	0.2	No	No
10	58.9	60.7	62.1	3.2	1.4	No	No
11	63.5	65.9	67.3	3.8	1.4	Yes	No
12	60.4	63.3	64.9	4.5	1.6	No	No
13	60.0	63.1	64.7	4.7	1.6	No	No
14	66.3	69.5	71.1	4.8	1.6	Yes	Yes
15	60.3	63.0	64.7	4.4	1.7	No	No
16	55.3	57.5	59.4	4.1	1.9	No	No
17	59.6	61.5	63.3	3.7	1.8	No	No
18	57.5	58.4	60.6	3.1	2.2	No	No

Table 3.6-7
Weekday Project Noise Impact Buildout Year 2035

Site	CNEL dBA			Change in dBA		Significant Impact?	
	Existing	2035 No Build	2035 Build	Cumulative (Build – Existing)	Project (Build – No Build)	Cumulative	Project
19	67.1	67.8	68.6	1.5	0.8	Yes	No
20	60.2	60.6	61.4	1.2	0.8	No	No
21	51.4	52.9	55.9	4.5	3.0	No	No
22	53.9	55.5	56.7	2.8	1.2	No	No
23	61.8	62.2	65.2	3.4	3.0	Yes	Yes
24	59.3	59.5	61.8	2.5	2.3	No	No
25	58.2	58.5	60.4	2.2	1.9	No	No
26	54.7	55.1	56.8	2.1	1.7	No	No
27	57.9	58.3	58.7	0.8	0.4	No	No

Figure 3.6-4
Project-Related Change in Weekday Noise Levels

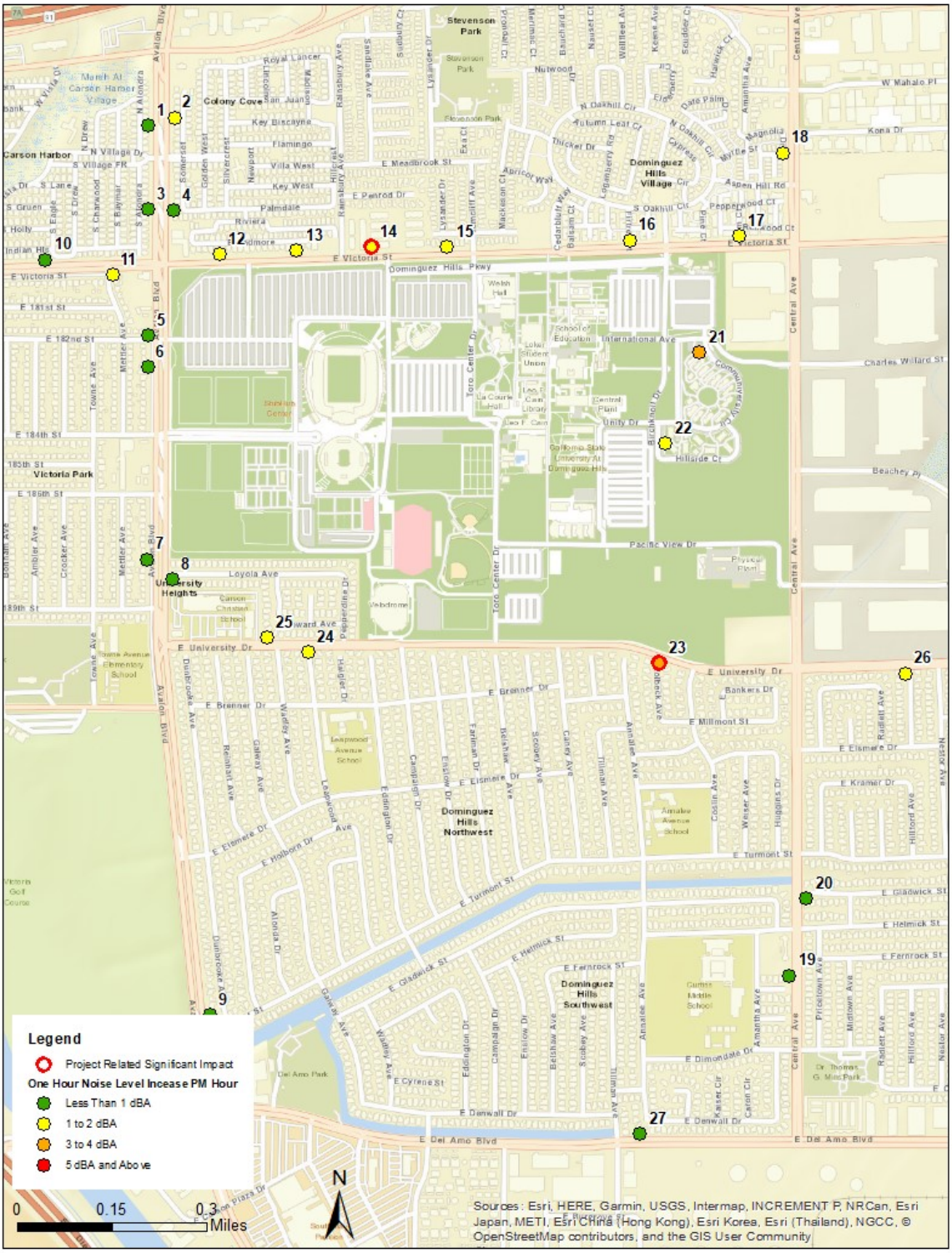
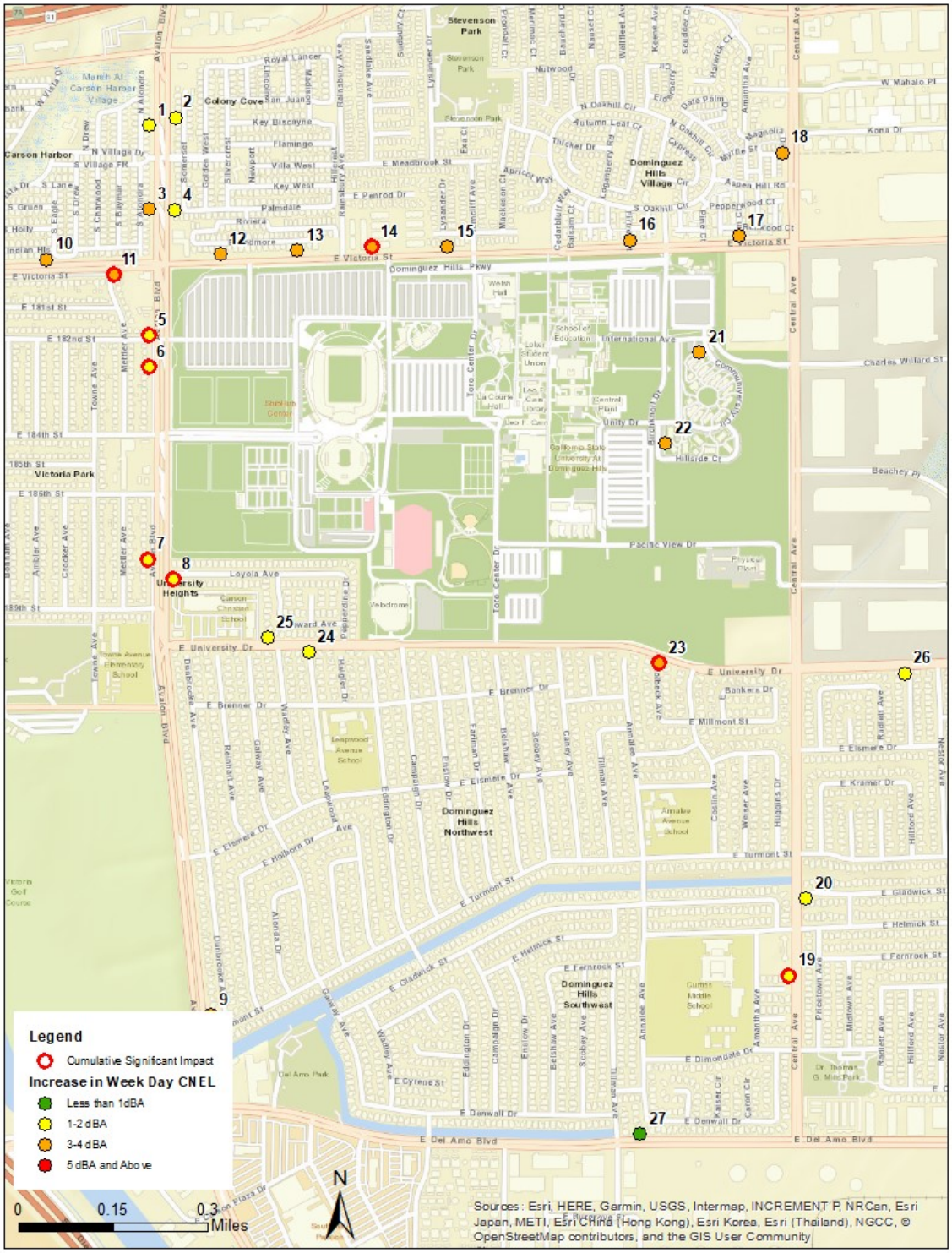


Figure 3.6-5
Cumulative Change in Weekday Noise Levels



Sunday Event Noise

The existing StubHub Center is located in the western-most area of the campus, east of Avalon Boulevard. The Center's facilities include an existing stadium with seating for 27,000 spectators. The Master Plan provides for additional 3,000 seats at the stadium accommodating 30,000 spectators.

Traffic Noise: The traffic-related noise analyses are based on the Transportation Impact Study (see **Appendix F.1** of the EIR), which addresses the effects of the change from 27,000 spectators to 30,000 spectators attending Sunday sporting events at the stadium at the StubHub Center. As shown in **Tables 3.6-8** and **3.6-9**, with the implementation of planned temporary traffic controls (see **Appendix F.1)**, no significant traffic noise impact will result at any of the 27 receptor sites under both Existing and Year 2019 conditions. The largest increases in traffic noise levels are at the receptor site 19 with an increase of 2.3 dBA in the pre-event hour and site 20 with an increase of 1.3 dBA in the pre-event hour under Existing Conditions, and site 4 with an increase of 1.2 dBA in the pre-event hour under Year 2019 Conditions. Noise level increases at all of the other 24 sites are less than one dBA in both pre-game and post-game hours under Existing Conditions and under Year 2019 Conditions. Therefore, the change in noise levels between 27,000 spectators and 30,000 spectators attending Sunday events would not result in a significant traffic noise impact from the event-related traffic.

Table 3.6-8
Change in Noise Levels between 27,000 and 30,000 Spectators
(Existing Sunday Pre- and Post-Event Hours)

Site Number	Pre-Event (27,000)	Pre-Event (30,000)	Change in Pre-Event Leq (h)	Post Event (27,000)	Post Event (30,000)	Change in Post Event Leq (h)	Significant Impact?
1	57.2	57.4	0.2	54.8	55.0	0.2	No
2	57.6	57.8	0.2	58.1	58.3	0.2	No
3	57.6	57.8	0.2	55.1	55.2	0.1	No
4	61.4	61.6	0.2	61.3	61.5	0.2	No
5	65.9	65.9	0.0	65.8	65.9	0.1	No
6	66.3	66.5	0.2	65.2	65.2	0.0	No
7	66.9	67.0	0.1	66.5	66.6	0.1	No
8	68.5	68.7	0.2	67.1	67.2	0.1	No
9	57.9	58.1	0.2	56.6	56.9	0.3	No
10	62.6	62.7	0.1	62.1	62.3	0.2	No
11	61.6	61.8	0.2	59.1	59.2	0.1	No
12	61.0	61.1	0.2	57.7	57.6	-0.1	No
13	60.3	60.7	0.4	57.6	57.8	0.2	No
14	66.1	66.4	0.3	63.7	63.9	0.2	No
15	56.8	57.1	0.3	59.1	59.4	0.3	No
16	49.8	49.8	0.0	54.1	54.6	0.5	No
17	53.6	53.7	0.1	58.4	58.9	0.5	No
18	54.9	55.1	0.2	53.7	54.4	0.7	No
19	63.5	65.8	2.3	63.4	63.4	0.0	No
20	56.5	57.8	1.3	56.2	56.3	0.1	No
21	51.9	51.9	0.0	56.8	56.9	0.1	No
22	55.5	55.5	0.0	53.2	53.2	0.0	No
23	57.4	57.6	0.2	57.7	57.7	0.0	No
24	57.0	57.0	0.0	56.7	56.8	0.2	No
25	55.5	55.5	0.0	57.0	57.2	0.3	No
26	54.8	54.2	-0.6	58.7	59.1	0.4	No
27	54.1	53.6	-0.5	54.1	53.7	-0.4	No

Table 3.6-9
Change in Noise Levels between 27,000 and 30,000 Spectators
(2019 Sunday Pre- and Post-Event Hours)

Site Number	Pre- Event (27,000)	Pre- Event (30,000)	Change in Pre-Event Leq (h)	Post Event (27,000)	Post Event (30,000)	Change in Post Event Leq (h)	Significant Impact?
1	57.2	57.5	0.3	54.9	55.1	0.2	No
2	57.6	57.8	0.2	58.1	58.4	0.3	No
3	57.6	57.9	0.3	55.2	55.4	0.2	No
4	61.5	62.7	1.2	61.4	61.8	0.4	No
5	66.0	66.2	0.2	65.9	66.0	0.1	No
6	66.4	66.6	0.2	65.3	65.3	0.0	No
7	66.9	67.1	0.2	66.6	66.7	0.1	No
8	68.6	68.7	0.1	67.2	67.3	0.1	No
9	58.0	58.0	0.0	56.6	56.8	0.2	No
10	62.8	62.6	-0.2	62.3	62.4	0.1	No
11	61.7	61.6	-0.1	59.4	59.5	0.1	No
12	61.1	61.3	0.3	57.9	58.0	0.1	No
13	60.4	60.7	0.3	57.8	58.0	0.2	No
14	66.2	66.5	0.3	63.8	64.0	0.2	No
15	56.8	57.3	0.5	59.2	59.4	0.2	No
16	49.8	50.0	0.2	54.4	54.7	0.3	No
17	53.8	53.8	0.0	58.6	58.9	0.3	No
18	55.1	55.2	0.1	54.2	54.6	0.4	No
19	64.0	64.1	0.1	63.9	63.9	0.0	No
20	56.9	57.0	0.1	56.6	56.7	0.1	No
21	51.9	51.9	0.0	56.8	56.9	0.1	No
22	55.5	55.5	0.0	53.2	53.3	0.1	No
23	57.9	57.9	0.0	57.7	57.8	0.1	No
24	56.8	57.0	0.2	56.7	56.8	0.2	No
25	55.4	55.5	0.1	57.0	57.2	0.3	No
26	55.0	55.2	0.2	58.8	59.2	0.4	No
27	54.5	54.5	0.0	54.6	54.6	0.0	No

***Event Noise at the Stadium*:** There will be no change to the public address system at the stadium. The public address system will continue to be limited to a performance level of 130 dB at a distance of three feet and a speaker cluster structure will continue to include a sound attenuation panel on the rear side of the speaker cluster to eliminate sound propagation in an eastward direction.

After Game Spectator and Parking Lot Noise: As with the current events with 27,000 spectators, signs will be posted in all parking areas indicating that there are nearby residences or school activities and that lot users are expected to refrain from making intrusive loud noise. A noise complaint tracking and response procedure and a toll-free telephone hotline manned by an on-site operations monitor, who has authority to respond immediately to noise complaints during an event to ensure compliance, will continue to be implemented. Furthermore, prohibition of excessively loud amplified music, such as a DJ or live entertainment associated with tailgating which is only allowed in StubHub Center controlled parking lots, and all of the current tailgating rules and regulations will continue to be implemented.

Aircraft Flyovers: As the use of small aircraft pulling advertising banners is determined by the market and attractiveness of the event itself to the advertisers, the number of overflights is anticipated to be the same for events with 27,000 spectators as with 30,000 spectators.

Cumulative Impacts

Cumulative noise impacts could potentially occur if the proposed project is located within close proximity to other developments. However, the proposed project is located within an urban area that is completely built-out. To the north and south of the proposed project are established residential neighborhoods. To the west of the proposed project are established residential neighborhoods with pockets of retail/commercial along Avalon Boulevard. To the east of the proposed project are established light industrial businesses. In the immediate vicinity, there is no potential infill development.

Additional research was conducted to determine the potential for cumulative noise impacts from other projects within the City of Carson. Based on City of Carson's Development Status Report[3], which shows all the projects that are either under construction, approved or under review by the City, all but one would be completed before the beginning of construction of the proposed project. The related project which would potentially overlap with the construction of the proposed project is a 32-unit residential-condominium development located at 21809-21811 S Figueroa Street, Carson 90745, with a planned completion date in spring 2020. Because this residential development is located more than two miles away from the proposed project, despite the potential overlap in construction, this would not be in close enough proximity to have the potential to create a cumulative construction noise impact. Overall, based on the analysis of foreseeable development activities, cumulative noise impacts related to construction activities would be less than significant.

Off-site operational noise sources would consist primarily of vehicle trips along adjacent streets. The increase in traffic volumes from other projects and overall growth was accounted for in the traffic analysis and noise analysis for Buildout Year 2035. As shown

[3] City of Carson, Major Projects List (Revised July 11, 2018), http://ci.carson.ca.us/content/files/pdfs/planning/Development_Status_Report.pdf.

in **Table 3.6-7**, the proposed project, together with overall growth of the area, would contribute to the increase in noise levels at eight of the receptor sites that were projected to have noise levels beyond the 65 dBA threshold for residential homes. Analysis shows that eight receptor sites would exceed the significance threshold, resulting in significant cumulative noise impacts:

- Site #5 SB Avalon Blvd. – Existing noise level above 65 dBA, with cumulative increase of 2.2 dBA;
- Site #6 SB Avalon Blvd. – Existing noise level above 65 dBA, with cumulative increase of 2.2 dBA;
- Site #7 SB Avalon Blvd. – Existing noise level above 65 dBA, with cumulative increase of 2.2 dBA;
- Site #8 NB Avalon Blvd. – Existing noise level above 65 dBA, with cumulative increase of 2.4 dBA;
- Site #11 EB Victoria St. – Existing noise level between 60 dBA and 65 dBA, with cumulative increase of 3.8 dBA;
- Site #14 WB Victoria St. – Existing noise level above 65 dBA, with cumulative increase of 4.8 dBA;
- Site #19 SB Central Ave. – Existing noise level above 65 dBA, with cumulative increase of 1.5 dBA; and
- Site #23 WB University Dr. – Existing noise level between 60 dBA and 65 dBA, with cumulative increase of 3.4 dBA.

Mitigation Measures

Construction

In addition to utilizing best practices for reducing construction noise, the following mitigation measure would reduce the potential for noise impacts by ensuring that construction of the proposed project is carried out in a manner, which minimizes noise to the extent practicable and in compliance with applicable noise standards.

NOI-1: Prior to initiation of campus construction, CSUDH shall approve a construction noise mitigation plan that shall be implemented for construction activities, and which will include an appropriate combination of the following:

- Temporary acoustic barriers to be installed around stationary construction noise sources within proximity of the residential homes north of Victoria Street and south of University Drive;
- Temporary acoustic barriers to be installed around stationary construction noise sources within proximity of the sensitive receptors within the campus;

- Construction equipment will be equipped with all feasible noise-reduction devices, and all construction equipment shall be maintained in accordance with manufacturer's specifications to assure that no noise results from improperly maintained equipment;
- Timing of construction activities will be coordinated to the extent feasible to minimize the extent of noisier construction activities, such as demolition, during time periods of more intensive academic instruction; and
- All construction projects pursuant to the proposed project shall be required to implement the above measures for control of construction noise.

Operation

Based on the impact analysis, the project would not result in a significant noise impact arising from the operation of the project, except for traffic-related noise at two locations, at receptor site 14 on westbound Victoria Street, from Entrance D to Rainsbury Avenue, and receptor site 23 on westbound University Drive, from Avalon Boulevard to Entrance I.

At receptor site 14, there is no feasible mitigation measure at this location because a sound wall/noise barrier would block the necessary access to properties for both vehicles and pedestrians. As such, implementation of the necessary improvements is infeasible and the impacts are considered significant and unavoidable.

At receptor site 23, the improvement necessary to mitigate the identified impact would be to increase the height of the existing wall to serve as noise barrier along eastbound University Drive between the Caney Avenue and Central Avenue. However, the property on which the sound wall would be built is under the jurisdiction of the City of Carson and the City does not have a funding plan or program in place to implement the improvement. As such, implementation of the necessary improvements is infeasible and the associated impacts are considered significant and unavoidable.

Cumulative

Based on the analysis of cumulative impacts, the proposed project, together with overall growth, would result in significant cumulative long-term operational noise impacts as a result of off-site roadway noise at eight locations.

At site 5, the improvement necessary to mitigate the identified impact would be the installation of a permanent sound wall to serve as noise barrier along southbound Avalon Boulevard along the back of the current sidewalk. However, the property on which the sound wall would be built is under the jurisdiction of the City of Carson and the City does not have a funding plan or program in place to implement the improvement. As such, implementation of the necessary improvements is infeasible and the associated impacts are considered significant and unavoidable.

At site 6, the improvement necessary to mitigate the identified impact would be the installation of a permanent sound wall to serve as noise barrier along southbound Avalon Boulevard between the frontage road and the main road. However, the property on which the sound wall would be built is under the jurisdiction of the City of Carson and the City does not have a funding plan or program in place to implement the improvement. As such, implementation of the necessary improvements is infeasible and the associated impacts are considered significant and unavoidable.

At site 7, the improvement necessary to mitigate the identified impact would be the installation of a permanent sound wall to serve as noise barrier along southbound Avalon Boulevard between the frontage road and the main road. However, the property on which the sound wall would be built is under the jurisdiction of the City of Carson and the City does not have a funding plan or program in place to implement the improvement. As such, implementation of the necessary improvements is infeasible and the associated impacts are considered significant and unavoidable.

At site 8, there is no feasible mitigation measure at this location because a sound wall/noise barrier would block the necessary access to properties for both vehicles and pedestrians. As such, implementation of the necessary improvements is infeasible and the impacts are considered significant and unavoidable.

At site 11, the improvement necessary to mitigate the identified impact would be the installation of a permanent sound wall to serve as noise barrier along eastbound Victoria Street between the frontage road and the main road. However, the property on which the sound wall would be built is under the jurisdiction of the City of Carson and the City does not have a funding plan or program in place to implement the improvement. As such, implementation of the necessary improvements is infeasible and the associated impacts are considered significant and unavoidable.

At site 14, there is no feasible mitigation measure at this location because a sound wall/noise barrier would block the necessary access to properties for both vehicles and pedestrians. As such, implementation of the necessary improvements is infeasible and the impacts are considered significant and unavoidable.

At site 19, the improvement necessary to mitigate the identified impact would be to increase the height of the existing wall to serve as noise barrier along southbound Central Avenue between the properties and the sidewalk or main road. However, the property on which the sound wall would be built is under the jurisdiction of the City of Carson and the City does not have a funding plan or program in place to implement the improvement. As such, implementation of the necessary improvements is infeasible and the associated impacts are considered significant and unavoidable.

At site 23, the improvement necessary to mitigate the identified impact would be to increase the height of the existing wall to serve as noise barrier along eastbound University Drive between Caney Avenue and Central Avenue. However, the property on which the sound wall would be built is under the jurisdiction of the City of Carson and the City does not have a funding plan or program in place to implement the improvement.

As such, implementation of the necessary improvements is infeasible and the associated impacts are considered significant and unavoidable.

Level of Impact After Mitigation

Even with the implementation of the recommended construction mitigation measures, the noise-related impacts arising from construction activities could still be potentially significant. Therefore, short-term construction noise impacts are considered significant and unavoidable.

With implementation of a sound wall at receptor site 14, and increasing the height of the existing wall at receptor site 23, the proposed project's operational noise impact at both sites would be reduced to less than significant. However, because these mitigation measures are infeasible, for the reasons described above, the noise-related impacts at both sites are considered significant and unavoidable.

With the implementation of sound walls at receptor sites 5, 6, 7, 8, 11, and 14, and increasing the height of the existing walls at receptor sites 19 and 23, the cumulative impact at these receptor sites would be reduced to less than significant. However, because these mitigation measures are infeasible, for the reasons described above, the noise-related impacts at these locations are considered significant and unavoidable.

3.7 Population and Housing

This section analyzes the potential impacts to population and housing that would occur as a result of adoption and implementation of the California State University, Dominguez Hills (CSUDH) 2018 Campus Master Plan (proposed project). This section describes the proposed project's existing setting, identifies associated regulatory requirements, and provides a context within which to assess the project's physical impacts with regard to increases in population levels and the housing stock within the City of Carson, the County of Los Angeles, and the region. This analysis is based on the 2011-2015 U.S. Census Bureau American Community Survey 5-Year Estimates, the 2010 U.S. Census, and the Southern California Association of Governments' (SCAG's) Regional Growth Forecasts (2016).

Methodology

The analysis presented in this section is based on data obtained from multiple public and private sources, including existing and projected population, housing, and employment data generated by the U.S. Census Bureau, California Department of Finance, and SCAG. In addition, CSUDH referenced a Student Housing Feasibility Assessment (2014) authored by Brailsford & Dunleavy.

The official U.S. Census is described in Article 1, Section 2 of the U.S. Constitution. It calls for an enumeration of people every 10 years, to be used for apportionment among the states of seats in the House of Representatives. The U.S. Census Bureau publishes population and household data gathered in the decennial census and maintains national and local databases on population, ethnicity, housing, employment, and income.

The California Department of Finance prepares and administers California's annual budget. The Department of Finance also prepares statewide growth forecasts, including estimating population demographics and enrollment projections.

Information specific to the Los Angeles region, including local population, housing, and employment forecasts and total projected college students and government workers, was obtained from SCAG. SCAG growth forecasts are used to plan for public infrastructure, housing and job creation throughout the region. Policies and programs adopted by SCAG to achieve regional objectives are expressed in its 2016 Regional Transportation Plan/Sustainable Communities Strategies (RTP/SCS).

Environmental Setting

Existing Conditions

The CSUDH 344-acre campus is located within the City of Carson, in the County of Los Angeles. **Figure 3.7-1** is an aerial photograph of the current campus, bounded on the

north by Victoria Street, on the south by University Avenue, on the west by Avalon Boulevard, and on the east by Central Avenue. **Figure 3.7-1** also shows the area of the campus leased to StubHub Center's parent company, Anchutz Entertainment Group (AEG), for the StubHub Center — an athletics and entertainment venue for soccer, tennis, track and field, and cycling, including the 27,000-seat soccer stadium and associated parking.

Figure 3.7-1
Aerial Photograph of CSU Dominguez Hills Campus, 2016

The area surrounding the CSUDH campus is comprised primarily of existing residential development on the north across from Victoria Street; on the south across from University Avenue; and on the west across from Avalon Boulevard. Except for the existing Pueblo Dominguez student housing on the eastern side of the campus comprising 649 beds and associated parking, significant portions of the east side campus are underutilized and available for development. Light industrial development is located to the northeast and to the east across from Central Avenue. **Figure 3.7-2** illustrates existing land uses surrounding the CSUDH campus.

Figure 3.7-2
Surrounding Land Uses

Since its inception, the CSUDH campus has been planned to accommodate 20,000 full-time equivalent students (FTES). This target student capacity remains the primary goal under the 2018 Campus Master Plan. At this time, the total existing campus physical capacity with all of its classrooms, laboratories, and other instructional space is at a level that will support approximately 11,000 FTES. The 2018 Guidelines make clear, however, that a number of the buildings on campus have reached the end of their useful life due to their age or condition. Further, as the student population increases to 20,000 FTES, the campus must add additional space to accommodate the increase in the number of students.

Regulatory Setting

State

California planning and zoning law requires each city and county to prepare and adopt a general plan for future growth (California Government Code section 65300). This plan must include a housing element that identifies housing needs for all economic segments and provides opportunities for housing development to meet that need (California Government Code section 65583). Specifically, a housing element must assesses the community's housing needs (with the state-imposed goal of providing housing opportunities for all segments of the community and all income groups), and then establish policies to ensure that these needs are met. The housing element includes goals, policies, quantified objectives, financial resources, and scheduled programs for the presentation, improvement, and development of housing. While the provision of general plan/zoning designations that allow for adequate housing is an obligation of local

governments, there is state oversight to ensure that adequate supplies of all types of housing are provided statewide.

To ensure that state goals are met at the local level, the state Department of Housing and Community Development (HCD) reviews all local housing elements (Government Code section 65583). At the state level, the HCD estimates the relative share of California's projected population growth that would occur in each county based on California Department of Finance population projections and historical growth trends. HCD compiles these figures in a Regional Housing Needs Assessment (RHNA) for each region of California.

Regional

Where there is a regional council of governments, the HCD provides the RHNA to the council. The council then assigns a share of the regional housing need to each of its cities and counties. The process of assigning shares gives cities and counties the opportunity to comment on the proposed allocations. The HCD oversees the process to ensure that the council of governments distributes its share of the state's projected housing needs.

SCAG is the federally-designated metropolitan planning organization for six Southern California counties, including Los Angeles County. Regional land use plans that include the project site and surrounding areas include the 2016–2040 RTP/SCS and RHNA.

2016–2040 Regional Transportation Plan/Sustainable Communities Strategy

In April 2016, SCAG adopted the 2016–2040 RTP/SCS. The updated RTP/SCS envisions a future where communities are more compact; people live closer to work, school, shopping, and other destinations; and neighborhoods are more walkable and bicycle friendly. Accordingly, the 2016–2040 RTP/SCS continues to place emphasis on sustainability and integrated planning.

Regional Housing Needs Assessment

The RHNA is a key tool for SCAG and its member governments to plan for growth. Communities can then address how to meet the identified needs through the Housing Element of their respective General Plans. The RHNA does not necessarily encourage or promote growth, but rather allows communities to anticipate growth in order to enhance quality of life and improve access to jobs, transportation, and housing, without adversely impacting the environment. The RHNA is produced periodically by SCAG, as mandated by state law, to coincide with the region's schedule for preparing Housing Elements. It consists of two measurements of housing need: existing need and future need.

The existing need assessment is based on data from the most recent U.S. Census to measure ways in which the housing market is not meeting the needs of current residents. These variables include the number of low-income households paying more than 30 percent of their income for housing, as well as severe overcrowding.

The future housing need is determined primarily based on historical growth patterns, job creation, household formation rates, and other factors to estimate how many households will be added to each community over the projection period. The housing need for new households is then adjusted to account for an ideal level of vacancy needed to promote housing choice, maintain price competition, and encourage acceptable levels of housing upkeep and repair. The RHNA also accounts for units expected to be lost due to demolition, natural disaster, or conversion to non-housing uses. The sum of these factors—household growth, vacancy need, and replacement need—form the "construction need" assigned to each community. The RHNA quantifies the need for housing within each jurisdiction during specified planning periods.

The 5th Cycle Regional Housing Needs Assessment Allocation Plan, which covers the planning period from October 2013 to October 2021, was adopted by the Regional Council on October 4, 2012. The RHNA considers how each jurisdiction might grow in ways to decrease the concentration of low income households in certain communities. The need for new housing is distributed among income groups so that each community can move closer to the regional average income distribution.

Regional Growth Forecast

As part of its responsibilities, SCAG prepares socioeconomic forecasts in five-year increments, currently projected through the year 2040. The forecasts are relied upon by SCAG for preparation of the RTP, Regional Transportation Improvement Program (RTIP), and the RHNA. SCAG's 2016 RTP/SCS includes this information in its Demographics and Growth Forecast of the regional and smaller geographic areas (Growth Forecast Appendix to the 2016-2040 RTP/SCS). This Growth Forecast represents SCAG's estimate of population, housing, land use, and economic growth through the year 2040.

Local

The California State University system, as a state agency, is not subject to local plans, policies, and guidelines. Nonetheless, for information purposes, the City of Carson last updated its General Plan in 2004. The General Plan provides the framework for all local zoning and land use decisions within the community, consistent with State planning law requirements that the General Plan include a comprehensive, long-term plan for each city's physical development. Further, the City policy requires periodic review and updating of its General Plan.

Currently, the City is embarking on an update to its 2004 General Plan. The "Carson 2040" General Plan Update, once adopted, will be the City's primary guide for local development, housing, transportation, environmental quality, public services, and parks and open space within the City. In conjunction with the Carson 2040 General Plan Update, the city is also preparing an environmental impact report (EIR) to address the potential environmental impacts that could result in implementing the General Plan Update. In addition, the City has initiated a public planning and environmental review process for its General Plan Update. The City is anticipating that it will have

comprehensively updated its General Plan and completed an accompanying EIR by late 2019 (https://www.carson2040.com/schedule-and-team/).

Existing Population, Housing, and Jobs Data

State Context

California is the most populous state in the nation. The population is estimated to grow further as a result of strong immigration from other states and nations, high birth rates among specific segments of the state's population, and increasing life spans of seniors. As of July 2016, the U.S. Census Bureau estimated the California population to be 39,250,017; by 2030, California's population is expected to reach 44,085,600 (U.S. Census Bureau 2016 ACS 1-Year Supplemental Estimates; U.S. Census Bureau Quick Facts). This would constitute an 18.3 percent increase over the existing population, with approximately 480,000 new arrivals each year. As of July 2016, the State of California had 14,060,525 housing units (U.S. Census Bureau 2012-2016 ACS 5-Year Estimates; U.S. Census Bureau Quick Facts).

As of April 2018, the California Department of Finance reported 18.5 million Californians employed, with unemployment at its lowest number since March 2001. (Department of Finance, Finance Bulletin, April 2018.) The California unemployment rate remained in line with the national rate of 4.1 percent. (Employment Development Department (EDD) News Release, April 20, 2018.) As of April 2018, the Los Angeles County region reported 4.9 million employed civilians (out of a 5.15 million labor force), with a decline in unemployment over the previous month (EDD Los Angeles County News Release, April 20, 2018). The City of Carson reported 44,700 employed residents (out of a 46,700 labor force) (EDD Monthly Labor Force Data for Cities and Census Designated Places, March 2018). The City's unemployment rate is on par with state and national unemployment rates.

Regional Context

Between 2012 and 2040, it is anticipated that the population of the Los Angeles region will increase from 9,923,000 residents to 11,514,800 residents, or by approximately 16 percent, a gain of 1,591,800 residents (see **Table 3.7-2**). During this time period, the City of Carson's population is expected to increase from 92,000 residents to 107,900 residents, or by approximately 17.3 percent, a gain of 15,900 residents (see **Table 3.7-3**). Between 2012 and 2040, the SCAG region's population is expected to increase by 20.8 percent (see **Table 3.7-1**).

Table 3.7-1 summarizes SCAG population, household, and employment projections for the entire region.

Table 3.7-1
Population, Household, and Employment Projections SCAG Region

	2012	2020	2035	2040
Population	18,322,000	19,395,000	21,486,000	22,138,000
Households	5,885,000	6,415,000	7,172,000	7,412,000
Employment	7,440,000	8,507,00	9,572,000	9,872,000
Jobs/Housing Ratio	1.26	1.38	1.33	1.33

Source: SCAG, 2016-2040 Regional Transportation Plan and Sustainable Communities Strategy, Adopted April 2016, and SCAG Demographics & Growth Forecast, 2016-2040 RTP/SCS, December 2015.

The jobs/housing ratio is a general measure of the total number of jobs and housing units in a defined geographic area, without regard to economic constraints or individual preferences. The jobs/housing ratio is one indicator of a project's effect on growth and quality of life in the project area. A major focus of SCAG's regional planning efforts has been to improve the jobs/housing balance.

As shown, the SCAG region is forecasted to remain relatively jobs-rich until at least 2035; however, the regional jobs/housing ratio is forecasted to decline in comparison with 2020, and decline from 1.38 in 2020 to 1.33 in 2035 and 2040. Despite the modest decline, the region's jobs to housing ratio indicates that housing will not keep pace with employment growth.

CSUDH is located in the City of Carson, within the Los Angeles County region. **Table 3.7-2** summarizes SCAG population, household, and employment projections for Los Angeles County.

Table 3.7-2
Population, Household, and Employment Projections for Los Angeles County

	2012	2020	2035	2040
Population	9,923,000	10,326,000	11,145,000	11,541,000
Households	3,257,000	3,494,000	3,809,000	3,946,000
Employment	4,260,000	4,662,000	5,062,000	5,226,000
Jobs/Housing Ratio	1.31	1.33	1.33	1.32

Source: SCAG, 2016-2040 Regional Transportation Plan and Sustainable Communities Strategy, Adopted April 2016, and SCAG Demographics & Growth Forecast, 2016-2040 RTP/SCS, December 2015.

As shown, the Los Angeles County's job/housing forecasted future ratios increase in comparison with 2012. SCAG forecasts a slight increase in the jobs/housing ratio from 1.31 in 2020 to 1.33 in 2035, equal to the regional ratio of 1.33. This indicates that similar to the greater SCAG region, the County's housing will not keep pace with jobs, while the ratio is projected to generally remain steady over the next 20 years.

Local Context

The City of Carson is comprised of approximately 19.2 square miles in the southern area of Los Angeles County. **Table 3.7-3** illustrates population, housing, and employment projections for the City of Carson.

Table 3.7-3
Population, Household, and Employment Projections for City of Carson

	2012	2040
Population	92,000	107,900
Households	25,300	30,800
Employment	58,500	69,700
Jobs/Housing Ratio	2.3	2.26

Source: SCAG, 2016-2040 Regional Transportation Plan and Sustainable Communities Strategy, Adopted April 2016, and SCAG Demographics & Growth Forecast, 2016-2040 RTP/SCS, December 2015.

As shown, the City is forecasted to increase its population by approximately 17.3 percent; increase its housing by 21.7 percent; and expand employment by 19.1 percent between 2012 and 2040. The City is projected to have significant growth with respect to population, households, and employment, with a jobs/housing ratio above that of the Los Angeles County and the SCAG region. The forecasted growth figures are consistent with the current estimate of the California Department of Finance, which reflects 26,222 housing units and 93,674 residents in the City as of January 2017 (Table E-1 Cities, Counties, and the State Population Estimates with Annual Percentage Change, accessed on April 21, 2018 at http://www.dof.ca.gov/Forecasting/Demographics/Estimates/E-1/).

In recent decades, demand for housing within the City of Carson has outpaced housing supply in the region; as a result, new housing development has grown in communities located just outside the region (SCAG Demographics & Growth Forecast, 2016-2040 RTP/SCS, December 2015; SCAG 2012-2035 RTP/SCS Executive Summary). As housing demand continues to increase, smart growth development and the location of housing near major employment centers are proposed strategies to encourage regional sustainability and reduce the number of housing units constructed outside the region.

SCAG prepares the RHNA which informs the City of Carson's Housing Element as part of its General Plan. The RHNA does not promote growth, but provides a long-term outline for housing within the context of local and regional trends and housing production goals. The RHNA estimates that the City will have the second highest projected growth rate for the SCAG region at 26.2 percent (Carson 2014-2021 Housing Element). The projected growth rate for the City of Carson from 2010 to 2020 of 6.3 percent is higher than what was experienced over the past decade. The projected growth rate for the City from 2020 to 2035 is even greater at an estimated 8.7 percent. In comparison, Los Angeles County is projected to have a growth rate of six percent from 2010 to 2020, and a 9.1 percent growth rate from 2020 to 2030 (Carson 2014-2021 Housing Element). In 2010, the City of Carson had a total of 24,903 households, which represented an approximately one percent increase from 2000 (Carson 2014-2021 Housing Element). In 2010, 10.2 percent of the City's occupied housing was classified as overcrowded, with overcrowded conditions reported more frequently by renters (at 16.7 percent) than by owners (at 8.2 percent) (Carson 2014-2021 Housing Element).

In 2010, Carson had a housing stock of 25,990 units. SCAG estimates reflect continued growth in the City of Carson with an approximate 13.9 percent projected increase in the number of households by 2035. The City's 2010 housing stock was comprised of 80 percent single-family, 10.9 percent multi-family, and 9.3 percent mobile home and other (Carson 2014-2021 Housing Element). The largest share of residential housing was developed between 1960 and 1969, indicating the average age of the homes in Carson is between 48 and 57 years old. Housing units between 30 and 40 years old generally require major repairs. (CSUDH Feasibility Assessment (Brailsford & Dunlavey 2014).) The City's multi-family housing stock actually decreased by 45 units between 2000 and2010. From 2000-2010, the greatest increase in housing type was in single-family dwellings with an increase of 791 units, representing a four percent increase (Carson 2014-2021 Housing Element). In 2010, the City had an overall vacancy rate of 1.7 percent.

CSUDH

From 2016-2017, approximately 10,977 FTES were enrolled in CSUDH (CSUDH City/County Population and Housing Estimates (2017)). In 2016, CSUDH had 830 faculty employees and 619 staff members (Faculty/Staff Demographics, accessed at https://www.csudh.edu/ir/ipeds/facultystaff/).

CSU's system-wide experience as well as national research on higher education graduation rates demonstrate that, in general, students who live on campus perform better academically, adjust better socially, and achieve higher rates of graduation than students who commute to college (2018 Master Plan Guidelines). Provision of appropriate opportunities for students to live on and near campus is a very important component of the proposed project. In 2014, CSUDH surveyed students that live off-campus and found that 92 percent of students never lived on campus during their time at CSUDH, and 80 percent of those students generally lived with family (CSUDH Feasibility Assessment (Brailsford & Dunlavey 2014)).

Presently, CSUDH has student housing in the Pueblo Dominguez apartment housing, which encompasses 649 fully occupied student beds, with a waitlist of nearly 200 students. The Pueblo Dominguez student residences are located in the eastern part of the campus. There are 134 apartments in two complexes, which include 30 three-bedroom units, 72 two-bedroom units, and 32 one-bedroom units (CSUDH 2009 Master Plan EIR). This aging complex is isolated from the campus core and does not provide the type of shared common experience important to supporting the socialization and developmental needs of first and second year students (2018 Master Plan Guidelines).

Recognizing the need to create new and additional housing, CSUDH conducted a feasibility assessment of needed housing facilities and determined that the campus needs approximately 1,611 student housing beds to accommodate 13,000 FTES (Guidelines for 2018 Master Plan; CSUDH Feasibility Assessment (Brailsford & Dunlavey 2014)). The analysis indicated a market demand for roughly 1,611 beds at CSUDH, suggesting a shortfall of 962 beds based upon enrollment of 13,000 FTES (2018 Master Plan Guidelines). This represents a ratio of 0.124 beds per FTES. In addition, housing needs based upon the ultimate anticipated enrollment of 20,000 FTES has been estimated at 2,480 student beds. (2018 Master Plan Guidelines). As noted above, the City of Carson has a shortage of local, campus-adjacent affordable rental housing, and, thus, opportunities to live near campus in privately-development apartments or other kinds of housing are limited (2018 Master Plan Guidelines). Additionally, the average distance from off-campus housing to CSUDH is 6.1 miles, and has a high occupancy rate of 89 percent. (CSUDH Feasibility Assessment (Brailsford & Dunlavey 2014).)

Impact Criteria

Based on Appendix G of the CEQA Guidelines, the determination of whether the proposed project would have a potentially significant impact related to population and housing is based on the following criteria:

Threshold 1: Would the project induce substantial unplanned population growth in an area, either directly (for example, by proposing new homes and businesses) or indirectly (for example, through extension of roads or other infrastructure)?

Threshold 2: Would the project displace substantial numbers of existing people or housing, necessitating the construction of replacement housing elsewhere?

Impact Analysis

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

The proposed project includes the addition of new on-campus housing facilities to accommodate existing students and anticipated enrollment growth. The proposed project

does not increase the planned and entitled student enrollment; instead, it provides for the facilities, including housing, needed to accommodate the already planned future enrollment.

The proposed project includes two types of new housing facilities for the campus. First, the proposed project includes a new apartment style housing exclusively for students, which will be comprised of 330 units with approximately 990 student beds. This new apartment style housing will be located in the University Village portion of the campus, and is intended to replace the existing Pueblo Domingo student housing, which is comprised of 649 student beds. Therefore, the proposed project will include a net increase of 341 student beds associated with the new apartment style housing. In addition to the student housing discussed above, the proposed project also would include up to 2,150 ~~market-rate~~campus apartment units within the University Village portion of the campus, which would provide additional housing for students, faculty and staff, and the general public interested in residing in close proximity to CSUDH to take advantage of campus life programs, recreation, athletics, cultural activities, and other campus benefits. The additional housing units would be consistent with City and SCAG goals to provide additional housing opportunities in the City of Carson. The additional housing units also would provide housing units for students, faculty, and staff in Carson consistent with the City Housing Element goals and policies.

The proposed project also would provide new ~~office~~ campus business park and retail facilities within the University Village portion of the campus that would further the educational mission of the University. Specifically, the proposed project would include up to 721,000 gross square feet of campus business park facilities, and up to 96,000 gross square feet of support retail uses. The campus business park component would expand connections with businesses and enhance opportunities for additional student internships, shared facilities, equipment and technology, innovative learning environments, and faculty and student research opportunities. The retail use project component would benefit and be available to students, faculty, staff, and University Village residents and employees as well as members of the surrounding community.

Pursuant to CSUDH's Brailsford & Dunlavey Feasibility Assessment, the recommended supply of beds for the 2022-2023 school year would be 1,450 student beds. Presently, CSUDH has approximately 649 on-campus student beds, resulting in a nearly 700 bed deficit to meet projected demand.

The estimated population and household growth associated with the proposed project would be well within SCAG's forecasted population and household growth from 2012 to 2040 for the City of Carson, which projects population growth of approximately 15,000 residents and nearly 5,000 households during this time frame.

The on-site water and sewer infrastructure would be sized to adequately serve the proposed project or be designated for use by the project. Thus, such infrastructure would not result in additional infrastructure capacity resulting in growth.

Based upon the discussion above, the proposed project would assist in meeting existing and future forecasted demand for housing in the area, Further, the retail and ~~office~~ campus business park components of the project are expected to help meet existing and forecasted jobs growth associated with forecasted population growth in the area. As a result, the proposed project would not induce substantial unplanned population growth either directly or indirectly, and thus impacts would be less than significant.

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

The proposed project would include the development of new and expanded facilities in three areas of the 344-acre CSUDH campus: (1) the Core Campus; (2) the University Village; and (3) the StubHub Center. The only existing housing on the project is Pueblo Domingo Student Housing, which encompasses 649 student beds, and which will be replaced by the new student apartment housing component of the proposed project, which would provide approximately 990 student beds. In addition to the replacement of the existing on-campus housing, the proposed project includes approximately 2,150 ~~market-rate~~ campus apartment housing~~s~~ available for faculty, staff, students, and the general public. Also, in addition to housing provided as part of the proposed project, approximately 1,100 additional student beds are planned for construction on the campus as part of a previously approved project involving new student residence halls.

Because the only housing currently located on the project site is being replaced by additional housing with a net increase in student beds, along with approximately 2,150 additional ~~market-rate~~campus apartment housing~~s~~, the proposed project would add housing units to the housing stock within the City of Carson rather than displacing existing housing. Because the proposed project would result in an increase in the housing units on the project site, the project would not displace any existing housing, necessitating the construction of replacement housing elsewhere. Therefore, no impacts associated with the displacement of existing housing would occur.

The proposed project would introduce 990 new student beds, resulting in a net increase of 341 student beds on campus, and also would introduce 2,150 ~~market-rate~~campus apartment housing ~~apartment~~ units on the CSUDH campus. For this reason, the proposed project would not displace substantial numbers of people, necessitating the construction of replacement elsewhere. Instead, rather than displacing people, the proposed project would provide more housing for students, faculty/staff, and the general public interested in residing in close proximity to CSUDH. The introduction of the additional housing provided by the proposed project would help to meet the demand in the City, the County, and in the SCAG region. Therefore, no impacts associated with the potential displacement of people would occur from implementation of the proposed project.

Cumulative Impacts

The proposed project, in combination with the other reasonably foreseeable projects in the area, would result in beneficial cumulative impacts associated with population and housing. Consistent with SCAG's 2016 RTP/SCS, future growth is expected to occur in

the City of Carson and region-wide, and when combined with probable future projects, the proposed project would result in beneficial impacts relative to the region's housing availability and affordability. As a result, the proposed project would not result in significant cumulative impacts to population and housing.

Mitigation Measures

Based on the above analysis, no mitigation measures are proposed or required because no significant population, housing, or employment impacts have been identified with regard to implementation of the proposed project.

3.8 Public Services and Recreation

This section analyzes the potential impacts to public services and recreation facilities associated with the California State University, Dominguez Hills (CSUDH) 2018 Campus Master Plan (Master Plan or proposed project). In particular, this section analyzes the potential impacts of the Master Plan on public services, such as fire protection and emergency medical services, police protection, schools, libraries, and park and recreation facilities.

Environmental Setting

The sections below describe the regulatory framework and existing conditions for fire protection and emergency medical services, police protection, schools, libraries, and park and recreation facilities.

Regulatory Framework

The sections below outline the state, and City of Carson plans, policies, and planned implementation measures related to the provision of public services and recreation facilities.

State Regulations

California Code of Regulations

The California Building Standards Code (California Code of Regulations [CCR], Title 24) is a compilation of building and safety standards, including fire safety standards for new buildings provided in the California Building Code (CCR, Title 24, Part 2) and the California Fire Code (CCR, Title 24, Part 9).[1] These standards apply to the construction of all buildings in California, except where state agencies and local governing bodies adopt more stringent standards.

The California Building Code includes several chapters relevant to fire safety and protection. These chapters address types of construction, fire and smoke protection features, construction materials and methods, and rooftop construction. Typical California Fire Code safety requirements include: fire sprinklers in all high-rise buildings; fire resistance standards for fire doors, building materials, and particular types of construction; debris and vegetation clearance within a prescribed distance from occupied structures within wildfire hazard areas; and fire flow requirements, fire hydrant spacing, and access road specifications.

[1] Building Standards Commission, Building Standards Information Bulletin 13-03, July 1, 2013, www.documents.dgs.ca.gov/bsc/cd_qustns/documents/2013/BSC-BULLETIN-13-03-Final.pdf.

In addition, CCR, Title 19 addresses public safety and includes State Fire Marshal requirements (CCR, Title 19, Division 1), which incorporate general fire and safety standards regarding fire department access and egress, fire alarms, emergency planning, and evacuation procedures.

City of Carson Regulations

As a state agency, California State University (CSU) is not subject to local planning regulations, such as the City of Carson's 2004 General Plan;[2] however, local goals, policies and implementation measures from the City's General Plan are provided below for information purposes only.

Safety Element

- **Goal SAF-5**: Minimize the public hazard from fire emergencies.
  - **SAF-5.1**: Coordinate with the Fire Department to provide fire and paramedic service at standard levels of service;
  - **SAF-5.2**: Continue to involve the Fire Department in reviewing and making recommendations on projects during the environmental, site planning and building plan review processes; and
  - **SAF-5.5**: Continue to enforce current regulations which relate to safety from fire, particularly in critical and high-occupancy facilities.
- **Goal SAF-6**: Strive to provide a safe place to live, work and play for City of Carson residents and visitors.
  - **SAF-6.1**: Coordinate with the Sheriff's Department to provide sheriff service at standard levels of service;
  - **SAF-6.2**: Continue to involve the Sheriff's Department in reviewing and making recommendations on projects during the environmental, site planning and building plan review processes. To this end, promote the development of defensible spaces, or Crime Prevention Through Design (CPTD), through the use of site and building lighting, visual observation of open spaces, and secured areas; and
  - **SAF-6.9**: Evaluate the need for future new Sheriff facilities.

Parks, Recreation and Human Services Element

- Parks
  - The current ratio of park acres to population is approximately 3.5 acres per 1,000 residents, and 1.72 acres per 1,000 residents if only City facilities are included. The

[2] City of Carson, General Plan, 2004, http://ci.carson.ca.us/communitydevelopment/generalplan.aspx.

City's General Plan established a target for a public parks to population ratio of four acres per 1,000 residents.

- **Goal P-1**: Increase of and improvements to park, recreational and cultural facilities to meet the needs of existing and future residents and workers in the City.
  - **P-1.2**: Work with local governmental and educational agencies and departments to maintain and, wherever feasible, expand the joint use of facilities within the City;
  - **P-1.3**: Promote greater cooperation and coordination with other City departments and public agencies, and encourage the construction of new park and human services facilities in developed areas of Carson as infill development occurs; and
  - **P-IM-1.9**: Pursue the joint use of recreational facilities at the CSUDH campus. (Implements Policy P-1.2)

- Library Facilities
  - The planning standard for the Los Angeles County Library system is 3.09 persons per household, 3.0 library materials items per capita, and 0.5 gross square feet per capita. Currently, the community is underserved in terms of facility size and library materials items. There are no plans for library expansion by the County. In addition, during times of budgetary cuts, library operations funding is often reduced.
  - **Goal P-11**: Improve library facilities and services for the citizens of Carson.
    - **P-11.1**: Determine the projected need for library facilities and services;
    - **P-11.2**: Investigate the most effective way to provide for the needs of the City; and
    - **P-IM-11.2**: Prepare a feasibility study of alternative solutions to providing additional library facilities and services. (Implements Policy P-11.2)

- School Facilities
  - School population growth projected to 2020 would be generated by an estimated 2,142 new dwelling units plus natural growth.
  - **Goal P-12**: Encourage the school districts to provide enhanced school facilities to serve the youth of Carson.
    - **P-12.1**: Work with the school districts to determine the projected need for school facilities and services; and
    - **P-12.2**: Work with the school districts to appropriately alter boundaries as necessary to provide good school facilities in close proximity to the residential population served.

Existing Conditions

Project Site

The CSUDH 344-acre campus is located within the City of Carson, in the County of Los Angeles. **Figure 3.8-1** is an aerial photograph of the current campus, bounded on the north by Victoria Street, on the south by University Avenue, on the west by Avalon Boulevard, and on the east by

Central Avenue. **Figure 3.8-1** also shows the area of the campus leased to StubHub Center's parent company, Anchutz Entertainment Group (AEG), for the StubHub Center — an athletics and entertainment venue for soccer, tennis, track and field, and cycling, including the 27,000-seat stadium and associated parking.

Figure 3.8-1
Aerial Photograph of CSU Dominguez Hills Campus, 2016

The area surrounding the CSUDH campus is comprised primarily of existing residential development on the north across from Victoria Street; on the south across from University Avenue; and on the west across from Avalon Boulevard. Except for the existing Pueblo Dominguez student housing on the eastern side of the campus comprising 649 beds and associated parking, significant portions of the east side campus are underutilized and available for development. Light industrial development is to the northeast and to the east across from Central Avenue. **Figure 3.8-2** illustrates existing land uses surrounding the CSUDH campus.

Figure 3.8-2
Surrounding Land Uses

Since its inception, the CSUDH campus has been planned to accommodate 20,000 full-time equivalent students (FTES). This target student capacity remains the primary goal under the Master Plan. At this time, the total existing campus physical capacity with all of its classrooms, laboratories, and other instructional space is at a level that will support approximately 11,000 FTES. The 2018 ~~Draft~~ Guidelines make clear, however, that a number of the buildings on campus have reached the end of their useful life due to their age or condition. Further, as the student population increases to 20,000 FTES, the campus must add additional space to accommodate the increase in the number of students.

Research and community outreach was conducted for the proposed project to obtain information on the existing public services available in the project area. The purpose of this effort was to establish the current status of these services, including fire and police protection, schools, libraries, and park and recreation facilities. This effort included phone interviews and/or email correspondences with representatives from each service agency or entity. The information gathered during this process is addressed in the subsections below. The outreach questionnaire can be found in Appendix I.

Fire Protection and Emergency Medical Services

University Fire Protection and Prevention

All existing campus facilities, except for the Pueblo Dominguez housing which will be demolished as part of the proposed project, are equipped with automatic smoke detectors and fire alarms that are set to provide both visual and audio alarms in the event a fire is detected or a fire alarm pull station is activated. Standard operating procedures are identified and disseminated on a regular basis to faculty, staff, and students to address a variety of different fire scenarios that may occur

on campus. If a fire situation is identified, the CSUDH Police Department will institute an emergency response and contact the County of Los Angeles Fire Department (LACoFD).

All fire equipment at the campus is maintained in accordance with state and local regulations. Fire equipment is inspected on a regular schedule and re-charged, repaired, or replaced as needed. The emergency fire response and evacuation procedures are tested at least once each year. Typically, University Housing will conduct two fire drills each semester. All residential advisors and professional staff are trained in fire drill and alarm protocols.[3] Other safety events on campus include presentations at school events and emergency preparedness training for Loker Student Union employees.

Los Angeles County Fire Department

The LACoFD provides fire and emergency medical services to residents of Los Angeles County, partnered cities, and other agencies including CSUDH. The LACoFD operates over 167 fire stations in 58 cities.[4] There are four stations located within the City of Carson and three stations located outside of the city near the campus boundary.

Table 3.8-1 lists the location of these LACoFD fire stations in the vicinity the campus. LACoFD does not publish response time guidelines, and did not provide information regarding response time guidelines in response to inquiry made during consultation.

Station 116 in the City of Carson, is the primary station serving CSUDH; the station is located on Victoria Street, which is the northern boundary of the campus. This station supports nine staff members, with one fire truck, one fire engine, and one paramedic squad. This station averages 3,000 emergency medical and fire incidents in a three-month period, and 500 non-emergency incidents. Emergency medical and fire response times for this station range from four to five minutes and non-emergency response times range from 10 to 12 minutes. Although LACoFD provided the general service area boundaries associated with Station 116, it did not provide data regarding service population in response to inquiry made during the consultation process.

The next closest station is Station 10, battalion headquarters, located at the southern corner of the Dominguez Hills neighborhood and approximately two miles from the campus. This station supports nine staff members, one fire engine, one foam truck, two battalion chief vehicles, and one utility vehicle. In addition to existing fire stations, the LACoFD Five-Year Station Plan identifies the need for a new fire station near the I-405/110 interchange, which would be approximately two miles southwest of the campus.[5]

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[3] CSUDH, Annual Fire Safety Report, 2017, https://www.csudh.edu/Assets/CSUDH-Sites/Housing/docs/Safety-Report/2017-Annual-Fire-Safety-Report.pdf.

[4] County of Los Angeles Fire Department, Annual Report, 2014, https://www.fire.lacounty.gov/wp-content/uploads/2015/05/LACFD-Annual-Report_2014_R7.pdf.

[5] City of Carson, Boulevards at South Bay Project - Specific Plan (Amended April 5, 2011), http://ci.carson.ca.us/communitydevelopment/SpecificPlan.aspx.

Table 3.8-1
LACoFD Fire Stations Near the CSUDH Campus

LACoFD Fire Station	Address	Distance from Campus (miles)
LACoFD Station 116	755 East Victoria Street Carson, CA 90746	0.2
LACoFD Station 10	1860 East Del Amo Boulevard Carson, CA 90746	2.0
LACoFD Station 95	137 West Redondo Beach Boulevard Gardena, CA 90248	2.1
LACoFD Station 105	18915 South Santa Fe Avenue Compton, CA 90221	2.5
LACoFD Station 158	1650 West 162nd Street Gardena, CA 90247	3.0
LACoFD Station 36	127 West 223rd Street Carson, CA 90745	3.1
LACoFD Station 127	2049 East 223rd Street Carson, CA 90810	3.2

Source: County of Los Angeles, ISD/IDD, 2017; County of Los Angeles Fire Department, Features Services Webpage, https://locator.lacounty.gov/fire.

Police Protection

University Police Department

The University Police Department, also referred to as University Police, has primary police protection responsibilities on the CSUDH campus including service, law enforcement, and maintenance of order.[6] The University Police Station is open 24 hours a day, seven days a week, 365 days a year, and is located at Welch Hall (WH) in the northwestern area of campus (1000 East Victoria St. WH B100 Carson, CA 90747). The University Police Department employs 18 full-time sworn police officers and six dispatchers for 911 emergency calls. The Department collaborates with Los Angeles County Sheriff's Department (LASD) and other mutual-aid agencies and contracted safety personnel to serve the University's estimated 15,000 population. Under agreements with LASD, the University Police Department is responsible for response to, and investigation of, all criminal acts on campus and campus-owned properties with the exception of: (1) officer involved shooting incidents; (2) missing or abducted juveniles; (3) missing or abducted adults; (4) homicides; and (5) sex crimes against children. **Table 3.8-2** provides the crime statistics for CSUDH for 2015 and 2016.

[6] CSUDH, Campus Safety Plan, 2017, http://www4.csudh.edu/Assets/CSUDHSites/DHPD/Docs/2017%20DH%20Annual%20Safety%20Report.pdf.

Table 3.8-2
University Police Department Crime Incidents, 2015 and 2016

Crime	Statistics	
	2015	2016
Homicide	0	0
Sex Offenses (felony)	5	1
Rape	0	1
Robbery	1	2
Aggravated Assault	7	5
Burglary	9	11
Larceny	--	--
Disorderly Conduct	--	--
Grand Theft Auto	5	11
Weapons Violations	0	8
Vandalism	--	--
Arson	0	0

Source: CSUDH, Crime Statistics, https://www.csudh.edu/Assets/csudh-sites/dhpd/docs/clery%20crime%20stats%202014-2016.pdf;
Call with Lieutenant David Hall, May 4, 2018.

Los Angeles County Sheriff's Department (LASD)

Police protection to the City of Carson is provided by the LASD. The LASD has a staff of approximately 18,000 employees and provides general law enforcement services to 40 contract cities and 90 unincorporated communities.[7] The closest police facility to the campus is the Carson Sheriff Station, located approximately two miles south of the campus at 21356 South Avalon Boulevard. The station services the City of Carson and unincorporated parts of Rancho Dominguez, Torrance, and Harbor City.[8] The station's jurisdiction also includes UCLA/Harbor General Hospital. As previously mentioned, the University Police Department is responsible for most criminal acts on campus and campus-owned properties, with some exceptions. **Table 3.8-3** provides the crime statistics in the City of Carson for 2015 and 2016.

[7] LASD, About webpage, https://www.lasd.org/about_us.html.

[8] LASD, Carson Station webpage, http://shq.lasdnews.net/pages/patrolstation.aspx?id=CAS.

Table 3.8-3
LASD Carson Station Crime Incidents, 2015 and 2016

Crime	Statistics	
	2015	2016
Homicide	1	10
Sex Offenses (felony)	11	41
Forcible Rape	6	26
Robbery	35	166
Aggravated Assault	64	309
Burglary	188	439
Larceny	464	1,466
Disorderly Conduct	8	30
Grand Theft Auto	186	522
Weapons Violations	40	142
Vandalism	144	392
Arson	6	22
Others (Noncriminal)	1,326	4,885

Source: LASD, 2016 Incidents & Arrest Summary, http://shq.lasdnews.net/CrimeStats/yir9600/yir2016/cas/24.htm; LASD, 2015 Incidents & Arrest Summary, http://shq.lasdnews.net/CrimeStats/yir9600/yir2015/cas/23.htm.

Schools

Campus Schools

One public school is located on the CSUDH campus on a 3.69-acre leased parcel occupied by the California Academy of Mathematics and Science (CAMS). This school is a public four-year high school within the Long Beach Unified School District. The CAMS students are allowed to take college-level courses at CSUDH. In addition, the University's Child Development Center (CDC) on the campus provides childcare for preschool children of University students, faculty, staff, and families in the surrounding community. The campus Toddler Center serves young children with typical development from 18-30 months and young children with developmental challenges from 18-36 months. Children may be referred by the Regional Centers for the Developmentally Challenged. The Center's services are available to children of CSUDH staff, faculty, and students, and families from the surrounding community.

Public Kindergarten through High School (K-12) Schools

The Los Angeles Unified School District (LAUSD) and Compton Unified School District (CUSD) provide public school services in the City of Carson.

The LAUSD is the second largest public school district in the nation. The District provides education services within an area over 720 square miles, including the City of Los Angeles, all or part of 31 municipalities, and unincorporated areas of Southern California; and enrolls more than 640,000 students.[9] LAUSD provides K-12 education as well as adult and special education programs. LAUSD currently operates 14 elementary schools, three middle schools, and two high schools within the City of Carson.[10]

The CUSD serves the south-central region of Los Angeles County. The school district boundary encompasses the City of Compton and portions of the City of Carson. There is one CUSD school located within the City of Carson, the Ralph Bunche Elementary School.[11]

Within a two-mile radius of the campus, there are 24 schools including 12 LAUSD school facilities, five CUSD school facilities, and seven private schools and preschools. **Table 3.8-4** lists school facilities within a two-mile radius of the campus and the corresponding enrollment and capacity figures. The 2017-2018 enrollment figures were obtained from the California Department of Education DataQuest online database. Additional school information was obtained through phone surveys conducted in April and May of 2018 with individual schools and the Carson General Plan EIR (October 2002). As shown in **Table 3.8-4**, one of the 12 LAUSD schools is over capacity based on existing enrollment figures.

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9 LAUSD, About Webpage, https://achieve.lausd.net/about.

10 LAUSD, Office of Data and Accountability, https://achieve.lausd.net/Page/7704.

11 Compton Unified School District, Schools Inventory, http://www.compton.k12.ca.us/schools/elementary.

Table 3.8-4
School Facilities Within 2-Mile Radius of Campus

School Facility	Address	Distance from CSUDH	2017-2018 Enrollment	Capacity*
Los Angeles Unified School District				
Leapwood Avenue Elementary School	19302 Leapwood Avenue, Carson 90746	0.2 mile	284	584
Annalee Avenue Elementary School	19410 South Annalee Avenue, Carson 90746	0.3 mile	226	570
Towne Avenue Elementary School	18924 Towne Avenue, Carson 90746	0.4 mile	319	556
Glenn Hammond Curtiss Middle School	1256 East Helmick Street, Carson 90746	0.5 mile	487	1,896
Broadacres Avenue Elementary School	19424 South Broadacres Avenue, Carson 90746	0.6 mile	267	546
Ambler Avenue Elementary School	319 East Sherman Drive, Carson 90746	0.9 mile	592	585
Magnolia Science Academy 3	1219 East Dimondale Drive, Carson 90746	1.5 mile	460**	N/A
New Millennium Secondary School	1301 West 182nd Street, Gardena 90248	1.9 miles	167	N/A
Andrew Carnegie Middle School	21820 Bonita Street, Carson 90745	1.9 miles	867	2,228
Del Amo Elementary School	21228 Water Street, Carson 90745	2.0 miles	375	584
Bonita Street Elementary School	21929 Bonita Street, Carson 90745	2.0 miles	532	783
Carson Street Elementary School	161 East Carson Street, Carson 90745	2.0 miles	711	1,024
Compton Unified School District***				
Walton Middle School	900 West Greenleaf Drive, Compton 90220	1.0 mile	311	450
Ralph Bunche Elementary School	16223 South Haskins Lane, Carson 90746	1.1 miles	420	561
Longfellow Elementary School	1101 South Dwight Street, Compton 90220	1.3 miles	513	600
Robert F. Kennedy Elementary School	1305 South Oleander Street, Compton 90220	1.6 miles	668	840
Bursch Elementary School	2505 West 156th Street, Compton 90220	1.9 miles	515	607
Other				
California Academy of Mathematics and Science	1000 East Victoria St., Carson CA90747	0.0 mile	N/A	N/A
Carson Christian School	17705 Central Avenue, Carson 90746	0.3 mile	80	N/A
John Muir Charter School	16425 Ishida Avenue, Gardena CA 90248	1.0 mile	N/A	N/A

Table 3.8-4
School Facilities Within 2-Mile Radius of Campus

School Facility	Address	Distance from CSUDH	2017-2018 Enrollment	Capacity*
Learning Tree Academy	454 Carson Plaza Drive, Carson 90746	1.3 mile	N/A	N/A
Little Angels PreSchool and Kindergarten	18419 South Avalon Boulevard, Carson 90746	1.5 mile	N/A	N/A
Golden Wings Academy	20715 South Avalon Boulevard, Carson, 90746	1.5 mile	N/A	N/A
Environmental Charter Middle School	812 West 165th Place, Gardena 90747	2.0 miles	360	N/A
Goal Oriented Academic Learning	21111 Dolores Street, Carson 90745	2.0 miles	N/A	N/A

Source: California Department of Education, 2017-2018 Enrollment, 2017, https://dq.cde.ca.gov/dataquest/page2.asp?level=School&subject=Enrollment&submit1=Submit; Phone surveys with representatives from individual schools, May 4, 2018 through May 8, 2018.

Note: **BOLD** text indicates the 2017-2018 student enrollment exceeds the school facility capacity.

* Carson General Plan EIR, October 2002.

** Enrollment data for 2017-2018 not available, data is for 2016-2017.

*** With the exception of Bursch Elementary School, the capacity data provided for Compton Unified School District schools is based upon an estimate of physical design capacity.

Libraries

Campus Libraries

The existing library on campus is the Leo F. Cain Library. The original library consists of 152,006 square feet, and the newer addition consists of 139,569 square feet, thus providing the campus with capacity in excess of 290,000 square feet of library facilities. The addition, which opened in 2009, is a state-of-the-art facility with the capacity to serve the university and community far into the 21st Century. The existing library facilities are located within the core of the campus and serve both University students and the community. Students enrolled in the Extended Education Program and the Pathways to Success Program, AP high school courses, and El Camino and Compton College classes may borrow materials from the library. Active CSUDH alumni, emeriti faculty and staff as well as CSU students, faculty and staff also have borrowing privileges. Guests are also allowed to check out materials by applying and paying for a one-year membership. The library supports 35 staff members and services the CSUDH's existing student enrollment of 15,179. Services include book loaning, study rooms, research help, public computers, a coffee shop, and iPad and laptop loans.

Community Libraries

In addition to the University's library, there are library facilities operated by other library systems located near the campus. The Los Angeles County Library system's Carson Regional Library provides library services to the City of Carson. There are two public libraries in the city: (1) the Dr. Martin Luther King, Jr. Library; and (2) the Carson Library. Both libraries provide book loaning services, online resources such as eBooks and music, homework help, free Wi-Fi, public computers, a family area, and a teen space. The Dr. Martin Luther King, Jr. Library is located within 0.75 mile of the campus at 17906 S Avalon Boulevard. It is supported by 2 full time and 3 part time staff members. The library is a 5,024 square foot building that can hold 75 people at maximum capacity. The Carson Library is located at 151 East Carson Street, 2.5 miles southwest of the campus. It is supported by 25 staff members. The building is 33,112 square feet and the meeting room capacity is 125 persons.

The Los Angeles County Library system is a network of 87 community libraries serving 3.4 million people in 49 cities and unincorporated areas of the County of Los Angeles. The library system is primarily financed by a dedicated share of property taxes from the service area, but also receives federal and state grant funds administered by the California State Library. The Los Angeles County Library Foundation was created in 1982 as a 501(c)(3) nonprofit organization dedicated to supporting the library system.

Parks and Recreation

Campus Recreation Facilities

The campus park and recreational facilities include numerous playfields, a jogging trail, a large multi-purpose soccer field, 12 tennis courts, a swimming pool, track and field facilities, baseball and softball fields, the Toro Dome gymnasium, an inline roller rink, natural areas, and numerous open space areas. These on-campus recreational and athletic facilities serve the University students, faculty, and staff, and many are also available for use by the general public. The facilities

also are available on a rental basis for organized recreation, physical education and related programs, and intercollegiate athletics. Recreational facilities, specifically the gymnasium, swimming pool, soccer field, and tennis courts, are open to leasing by on- and off-campus organizations.

In addition, the StubHub Center is located within the CSUDH campus. The Center includes state-of-the-art stadiums including a 27,000-seat soccer stadium, an 8,000-seat tennis stadium, a 2,000-seat track & field facility, and the Velo Sports Center – a 2,450-seat indoor velodrome. Named an official U.S. Olympic Training Site by the United States Olympic Committee, the StubHub Center is home to world-class competition and professional athletics, such as U.S. Soccer, the United States Tennis Association high performance training center, and USA Cycling. Community organizations may submit written request to use these facilities at least 30 days in advance of the date of an event.

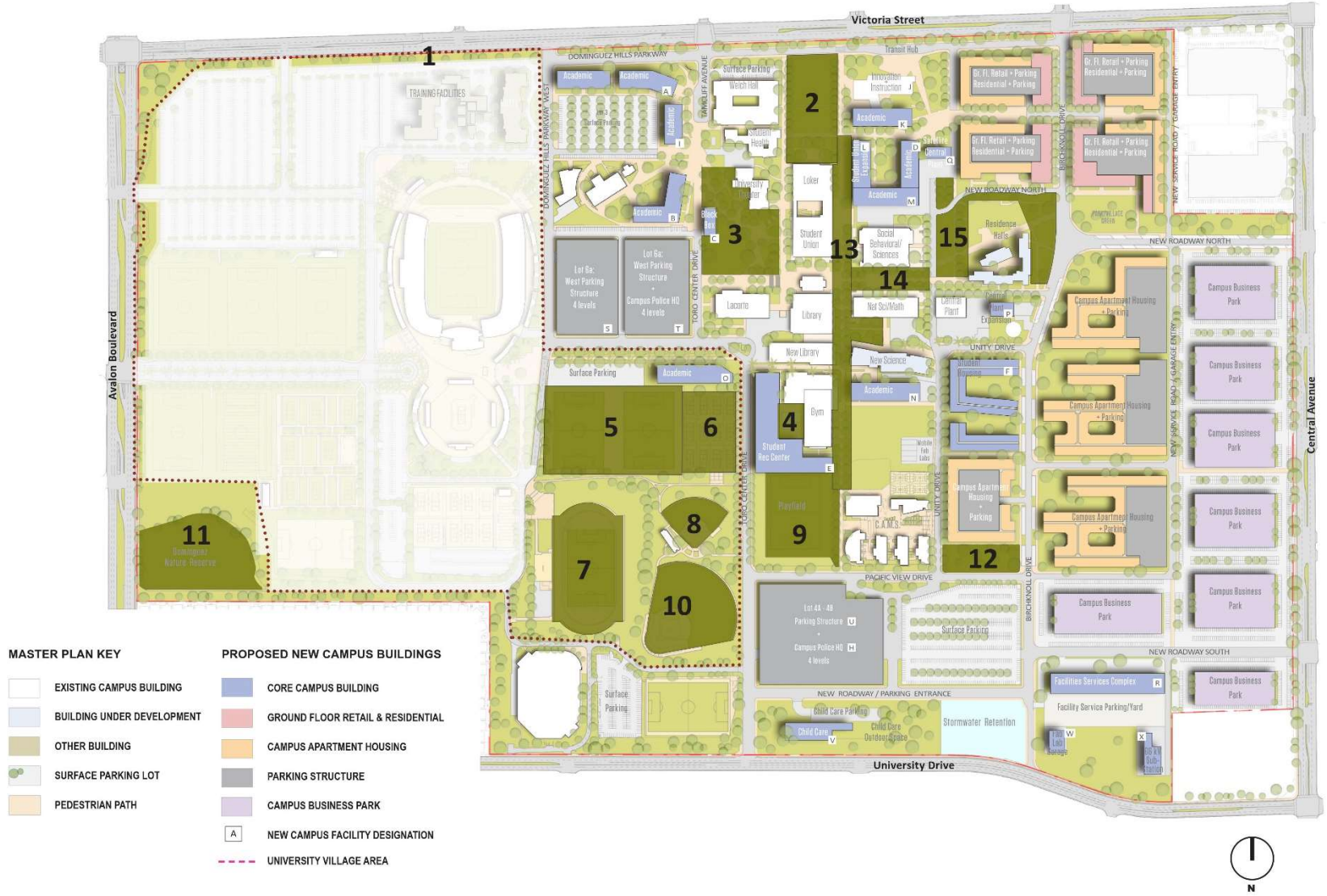
The park and recreation facilities existing on campus are identified in **Table 3.8-5**. Facilities at the StubHub Center are not included except for the jogging trail, which is open and available for general recreational use. **Table 3.8-5** also provides the type of each park and recreation facility existing on campus as well as the amount of acreage associated with each of the existing facilities. The existing park and recreation facilities on campus consist of a total of 39.27 acres and are depicted on **Figure 3.8-3** below.

Table 3.8-5
Existing Campus Park and Recreation Facilities

Campus Area	Designation	Type	Area
1	Jogging Trail (2 miles) with 12 stretching stations	Pathway	3.88 acres
2	North Lawn	Open Space/Activity Area	2.52 acres
3	Sculpture Garden	Mixed Use: garden, gathering, pathways, activities	2.89 acres
4	Swimming Pool	Recreation	.42 acres
5	Soccer Fields	Playfields	5.59 acres
6	Tennis Courts	Playfields	1.98 acres
7	Track and Field Stadium	Playfields	3.89 acres
8	Softball Field	Playfields	.94 acres
9	Activity Field	Playfields	2.83 acres
10	Baseball Field	Playfields	3.05 acres
11	Nature Reserve	Natural Area	3.54 acres
12	Heritage Creek	Natural Area	.96 acres
13	East Walk	Pathways/Open Space	3.43 acres
14	Walk north of Library South	Pathways/Open Space	.82 acres
15	Residence Halls Open Space	Pathways/Open Space	2.53 acres

Source: AC Martin Architects

Figure 3.8-3
Existing Campus Park and Recreation Facilities (Updated)



Community Recreation

There are numerous parks and recreational facilities in the vicinity of the campus, as listed in **Table 3.8-6**. The City of Carson Department of Parks and Recreation also provides a wide variety of recreational and community services. These include general services, children and youth services, and senior and special interest services and facilities. General services include classes, adult sports, boxing and weightlifting, and other park activities. Children and youth services include early childhood classes, kids' clubs, and teen activities. Senior services and facilities offer information and referral, senior assisted living services that include homemaking, visiting and in-home registry, physical and emotional therapy, case management/crisis intervention, senior advocacy, and comprehensive educational and recreational programs. There are senior clubs that are co-sponsored by the City, yet operate independently. Other services, such as the special needs program, are designed to meet basic recreational, social and physical fitness needs of the city's adult disabled population.[12]

Table 3.8-6
Parks and Recreational Facilities within 1-Mile Radius of Campus

Name/Location	Size/Amenities	Distance from Campus	Service Population
City of Carson Parks and Recreational Facilities			
Stevenson Park 17400 Lysander Drive Carson, CA 90746	11.7 acres: ball fields, basketball courts, children's play area, horse-shoes, meeting/craft rooms, picnic areas, snack bar, tennis courts, volleyball courts, wading pools. Gymnasium is planned.	0.2 mile	4,636
Dr. Thomas G. Mills Memorial Park 1340 E Dimondale Drive Carson, CA 90746	5.0 acres: two multi-purpose rooms, two play areas, a wading pool, picnic area, Frisbee Golf, and parking lot.	0.5 mile	5,494
Del Amo Park 703 E Del Amo Boulevard Carson, CA 90746	9.5 acres: ball fields, basketball courts, children's play area, football field, meeting/craft rooms, picnic areas, snack bar.	0.7 mile	3,698
Walnut Street Mini Park 440 E Walnut Street Carson, CA 90746	1.5 acres: basketball courts, children's play area, picnic areas.	0.7 mile	2,731
James Anderson Jr. Memorial Park 19101 S Wilmington Avenue Carson, CA 90746	8.5 acres: basketball courts, children's play area, Frisbee golf course, meeting/craft rooms, picnic areas, tennis courts.	0.7 mile	4,245

[12] City of Carson General Plan, Parks and Recreation Element, 2004.

Table 3.8-6
Parks and Recreational Facilities within 1-Mile Radius of Campus

Name/Location	Size/Amenities	Distance from Campus	Service Population
Vernon M. Hemingway Memorial Park 700 E Gardena Boulevard Carson, CA 90746	13.0 acres: ball fields, basketball courts, children's play area, meeting/craft rooms, picnic areas, snack bar, tennis courts.	0.9 mile	2,759
County Recreational Facilities Located in City of Carson			
Victoria Park Community Regional Park 419 E 192nd Street Carson, CA 90746	36.0 acres: ball fields, basketball courts, swimming pool, gymnasium, tennis courts, play area, recreation building, picnic area.	0.3 mile	7,477
Victoria Golf Course 340 E 192nd Street Carson, CA 90746	161.6 acres: public regulation golf course.	0.3 mile	NA

Source: City of Carson General Plan, 2004; City of Carson, Parks in the City, http://ci.carson.ca.us/CommunityServices/Parks_Rec_Parks.aspx.

Note: NA = not available.

Environmental Impacts

The discussion that follows concerning environmental impacts addresses the following topics: methodology, project design element and features, CEQA significance thresholds, and project impacts on fire protection and emergency medical services, police protection, schools, libraries, and parks and recreation facilities.

Methodology

The following subsections describe the methodology used to assess environmental impacts on public services and recreation facilities resulting from the implementation of the Master Plan.

Fire Protection and Emergency Medical Services

Fire service needs are determined based on the size of the service population and the geographic area served, the number and types of calls for service, and the characteristics of a project's use and intensity, and the surrounding community. Impacts regarding fire protection services are taken into account for a proposed development project's land use(s), fire protection needs, design features that would reduce or increase the demand for fire protection services, whether the project site meets response time goals, and whether new or altered facilities would be required as a result of these factors. Additionally, consideration is given to a project's fire flow requirements, fire hydrant sizing and placement standards, access, and potential to use or store hazardous materials

on-site. Consultation with the Fire Department was conducted to determine service availability to help analyze the proposed project's effect on fire protection and emergency medical services.

Police Protection

The analysis of potential impacts on existing and planned police protection services, staffing, equipment, and facilities considered the Master Plan's effects on calls for service, levels of service, and response times; and the need for additional staffing, associated equipment, and whether new or altered facilities would be required as a result of these factors. The analysis also considers the ability of planned University police protection and security features to reduce demands on law enforcement services.

Schools

The methodology used to evaluate school impacts involved the following: (1) projecting the number of future students generated by the project; and (2) identifying the existing schools that would serve the project and comparing the number of project-generated students to the current available capacity. The analysis further considers whether new or altered facilities would be required as a result of these factors. This analysis is focused on public schools within the vicinity of the project site and does not take into account students who may enroll in private schools or participate in home-schooling.

Libraries

The following methodology was used to evaluate potential impacts on libraries: (1) identify the University and community library facilities and services that would serve the project; (2) project the future demand for library services associated with the project; and (3) determine whether, and to what extent, if any, the proposed project's contribution to the service population would impact the libraries' service capacities. The analysis then addresses whether new or altered facilities would be required as a result of these factors.

Parks and Recreation

The methodology used to evaluate potential park and recreation impacts involved the following: (1) identifying the existing parks and recreational facilities on campus and in the project vicinity; (2) projecting the future population associated with the project; and (3) evaluating the demand for park and recreation service anticipated at the time of project buildout compared to the expected level of service available, considering the project's recreational amenities. The analysis also considered whether the project would conflict with the parks and recreation standards set forth in regulatory documents (e.g., a general plan or municipal ordinance). Finally, the analysis addresses whether new or altered facilities would be required as a result of these factors

Significance Thresholds

Based on Appendix G of the California Environmental Quality Act (CEQA) Guidelines and other relevant criteria, a project could have a potentially significant impact related to public services and recreation based on the following criteria:

Threshold 1: Would the proposed project result in substantial adverse physical impacts associated with the provision of new or physically altered governmental facilities, need for new or physically altered governmental facilities, the construction of which could cause significant environmental impacts, in order to maintain acceptable service ratios, response times or other performance objectives for any of the public services:

- Fire protection;
- Police Protection;
- Schools;
- Parks; or
- Other public facilities?

Threshold 2: Would the proposed project increase the use of existing neighborhood and regional parks or other recreational facilities such that substantial physical deterioration of the facility would occur or be accelerated?

Threshold 3: Would the proposed project include recreational facilities or require the construction or expansion of recreational facilities which might have an adverse physical effect on the environment?

Project Impacts

The following provides an analysis of the potential impacts of the Master Plan relating to fire protection and emergency medical services, police protection, schools, libraries, and parks and recreation facilities.

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

Fire Protection and Emergency Medical Services

The implementation of the Master Plan to expand University services, including faculty and staff to meet the needs of 20,000 FTES, would result in the development of up to two million gross square feet (gsf) new academic, administrative, retail, and ~~office~~campus business park space, approximately 2,150 market-rate apartment units, a net increase of 341 student housing beds, and 3,000 additional spectator seats at the StubHub Center. The implementation of the Master Plan would include fire protection and prevention measures and procedures as part of the new construction, as well as demand for fire protection and emergency medical services from the LACoFD and LASD.

This planned development on the campus would occur through the 2035 planning horizon year. Individual buildings, or phases of the Master Plan involving several buildings, would be designed and constructed periodically over the next 15 to 20 years. All new campus buildings and other facilities would continue to be subject to the State Fire Marshal fire safety reviews and approvals, include all necessary ingress and egress for traffic circulation and emergency response, and comply with all applicable requirements for construction, access, water mains, fire flows, and life safety requirements. All fire equipment at the campus would continue to be maintained in accordance with state and local regulations. The University would continue to implement fire safety training and response procedures, including the emergency fire response and evacuation procedures and training. If a fire situation is identified on campus, University Police and LASD would continue to institute an emergency response and contact the LACoFD.

The proposed project would also comply with the applicable requirements of the State Fire Marshal and Building Codes regarding site access, fire hydrant spacing, water-storage, building materials, construction standards, and fire flow. The proposed project would also be equipped with design features and fire suppression equipment including automatic sprinkler system, fire alarm system, and evacuation life safety system. These systems would slow the spread of fire and would reduce demand for fire services. In addition, the full development would only occur incrementally over the next 15 to 20 years, overall demand would increase gradually, and service need would be spread across the fire stations within the vicinity of the project area

Fire protection service for the campus would continue to be provided by Station 116, which is located directly across Victoria Street from the CSUDH campus. In addition, six other LACoFD fire stations are located within approximately three miles of campus, and could also provide fire protection and emergency medical services. The existing service area for Station 116 extends north to Gardena Boulevard, south to Del Amo Boulevard, west to Figueroa Street, and east to Central Avenue. Because the exact service population statistics were not made available by LACoFD, the population size was estimated by zip code, using Census 2010 statistics. The project is located within zip code 90746, which roughly corresponds with the service area for Station 116, with northern boundary at Alondra Boulevard, southern boundary at 213th Street, western boundary at Main Street, and eastern boundary at Wilmington Avenue. The population within zip code 90746 is approximately 26,000.[13] Based on conservative projections, the development of new student housing and apartments at University Village would increase the campus resident population by an estimated ~~6,551~~6,809.

The growth in the campus population would result in additional demand for fire and emergency medical services, but there is no basis to conclude that new or expanded facilities would be needed to meet this demand. Although LACoFD does not provide response time guidelines, LACoFD Station 116 averages 3,000 emergency medical and fire incidents in a three-month period, and 500 non-emergency incidents. Emergency medical and fire response times for this station range from four to five minutes, and non-emergency response times range from 10 to 12 minutes. These response times are within the 2010 National Fire Protection Association's (NFPA) guideline recommendation, which provides that first emergency medical service unit arrive on scene in five minutes 90 percent of the time, and the first fire suppression unit arrive on scene in less than five

[13] United States Census Bureau, https://factfinder.census.gov/faces/nav/jsf/pages/community_facts.xhtml.

minutes, 20 seconds 90 percent of the time.[14] With the implementation of the project's design features, compliance with all fire and safety regulations, there is no evidence new or physically altered governmental fire and emergency medical facilities would be needed as a result of the Project. As a result, impacts from the project would be less than significant.

Police Protection

The Master Plan would accommodate an increase in the number of students attending classes on the campus by approximately 9,000 students, and would also result in an increase in the number of faculty and staff on campus. The development of new student housing and apartments at University Village would increase the campus resident population by an estimated ~~6,551~~6,809. An unknown number of workers and business patrons would be associated with the proposed new retail and office space at the University Village. Together, the people living, working, shopping, and attending classes and special events on the campus would increase the demand for police protection services.

The primary police protection responsibility would continue to be provided by the University Police Department, which has jurisdiction over the campus and University Village development proposed in the Master Plan. The University Police Department also would continue to have mutual-aid agreements and cooperate fully with local and state law enforcement agencies, including the LACSD.

The future campus development pursuant to the Master Plan would increase student, faculty, staff, and on-campus residents and employees over the year 2035 planning horizon. Each individual campus building, or project phase comprised of several buildings, which would involve coordination with the University Police Department prior to construction to ensure adequate police protection services would be available at the completion of construction.

As part of the Master Plan, all new campus facilities, including access and internal site circulation plans, would be reviewed with regards to security objectives and police mobilization purposes to ensure adequate ingress/egress for emergency vehicles. The new buildings and other facilities would be incorporated into the University's security and emergency response plans to ensure appropriate access for police and emergency response. New campus facilities may include passive and/or active security systems, and/or other measures to minimize the need for new security personnel. Moreover, a new campus University Police Headquarters is part of the Master Plan and would be constructed to provide expanded resources and facilitate policing services. Demand on campus would also be minimized by the implementation of new enhanced operating procedures, continued campus safety training, and appropriate staffing based on on-going evaluation of demand and needs. Because, the majority of the on-campus policing would be conducted by the University Police Department, additional demand on LASD would be limited.

As such, the long-term incremental implementation of the Master Plan is not anticipated to result in significant impacts on police protection services nor deteriorate acceptable levels of service or response times such that new or physically altered police facilities would be needed other than

[14] NFPA, 2010 Guidelines, 1710 (Section 4.1.2.1, and Section 5.2.4.1.1).

those provided as part of the proposed project. Therefore, the impacts from the proposed project on police protection facilities would be less than significant.

Schools

The Master Plan includes new residential units on the campus, including new student housing and up to 2,149 apartments at the planned University Village. The student housing population would not include children, however a portion of the new residents at University Village would be children. Some of these children would need toddler and preschool services, while others would attend public K-12 schools or nearby charter or private schools. The apartments within the University Village would be constructed incrementally over time.

For the purposes of analysis of project impacts on schools, two different approaches were used to estimate the future student population. The first method used 2010 census demographic characteristics for households in the City of Carson. Based on the 2010 census, 43.2 percent of the households had children under the age of 18.[15] Based on this average, the new residential development would generate approximately 900 new students to the area. This number is conservative because children under the age of 18 also includes non-school age children. The second method used school district student generation statistics. The number of students associated with the new apartments at the University Village was calculated using student generation factors obtained from the School Facility Needs Analysis for Los Angeles Unified School District (September 2002).[16] **Table 3.8-7** summarizes the projected number of students that could reside at the University Village. Based on these student generation rates, the calculations estimated a range of between 718 to 1,304 students.

Current available capacities at nearby schools were calculated by comparing 2017-2018 enrollment and the operating capacities of nearby schools of the Los Angeles Unified School District. The results are summarized in **Table 3.8-8**. As shown, the total available seats for elementary schools within a two-mile radius of the campus is approximately 2,418, which is considerably greater than the high estimate of approximately 700 elementary school children who could reside within the University Village. The available student seats for middle and high schools is approximately 2,909, which is considerably greater than the upper range estimate of about 570 middle and high school children who might live at University Village. This analysis of available capacity demonstrates the anticipated school-aged students living at University Village could be accommodated at local schools. Therefore, there is no evidence new or physically altered school facilities would be needed as a result of the proposed project. As a result, impacts from the proposed project would be less than significant.

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15 City of Carson, Census and Demographics, http://ci.carson.ca.us/AboutCarson/Census.aspx.

16 LAUSD, School Facilities Needs Analysis for Los Angeles Unified School District, September 2002.

Table 3.8-7
Projected Student Generation

Housing Units	Elementary School		Middle School		High School		Total
	Generation Rate	Students	Generation Rate	Students	Generation Rate	Students	
Medium Density (2,100 units)	0.178	374	0.083	174	0.081	170	718
High Density (2,100 units)	0.351	737	0.143	300	0.127	267	1,304

Table 3.8-8
Existing School Capacities Within 2-Mile Radius of Campus

School Facility	2017-2018 Enrollment	Capacity*	Excess/ (Shortage)
Los Angeles Unified School District Elementary Schools			
Leapwood Avenue Elementary School	284	584	300
Annalee Avenue Elementary School	226	570	344
Towne Avenue Elementary School	319	556	237
Broadacres Avenue Elementary School	267	546	279
Ambler Avenue Elementary School	592	585	(-7)
Del Amo Elementary School	375	584	209
Bonita Street Elementary School	532	783	251
Carson Street Elementary School	711	1,024	313
Compton Unified School District Elementary Schools			
Ralph Bunch Elementary School	420	561	141
Longfellow Elementary School	513	600	87
Robert F. Kennedy Elementary School	668	840	172
Bursch Elementary School	515	607	92
Total Elementary School			2,418
Los Angeles Unified School District Middle/High Schools			
Curtiss Middle School	487	1,896	1,409
Magnolia Science Academy 3	460***	N/A	N/A
Andrew Carnegie Middle School	867	2,228	1,361
New Millennium Secondary School	167	N/A	N/A

Table 3.8-8
Existing School Capacities Within 2-Mile Radius of Campus

School Facility	2017-2018 Enrollment	Capacity*	Excess/ (Shortage)
Compton Unified School District Middle Schools			
Walton Middle School	311	450	139
Total Middle / High School			2,909

Source: California Department of Education, 2017-2018 Enrollment, https://dq.cde.ca.gov/dataquest/page2.asp?level=School&subject=Enrollment&submit1=Submit.

Phone surveys with representatives from individual schools, from May 4, 2018 through May 8, 2018.

* City of Carson, General Plan EIR, October 2002.

*** Enrollment data for 2017-2018 not available, data is for 2016-2017.

Libraries

The existing library on campus is the Leo F. Cain Library, including its new addition. The Leo F. Cain Library consists of 152,006 square feet, and the addition consists of 139,569 square feet, thus providing the campus with capacity in excess of 290,000 square feet of library facilities. No additional library facilities are planned as part of the proposed project because there is ample space in existing libraries, particularly the addition, which opened in 2009. It is a state-of-the-art facility with the capacity to serve the university and community far into the 21st Century. The anticipated increase in demand for on-campus library services from planned new student housing as well as ~~mixed~~ student, faculty, and ~~market-rate~~campus apartment ~~-~~housing within the University Village would be accommodated with the capacity provided by existing library facilities on campus. Residents of the ~~market-rate~~campus apartment housing in the University Village will have access and borrowing privileges at the campus library facilities equivalent to that afforded to students.

The existing campus libraries provide a total of 291,575 square feet of library facilities. The City of Carson General Plan states that the planning standard for the Los Angeles County Library system is 0.5 gross square feet per capita. Based upon this planning standard, the 291,575 square feet of library facilities on campus would be adequate to serve a population of 583,150. Based upon the anticipated student enrollment of 20,000 FTES, the estimated University Village resident population of approximately ~~6,551~~6,809, and the additional faculty and staff associated with the proposed project, the existing campus library facilities are substantially in excess of the referenced planning standards, and therefore the proposed project will not require new or additional library facilities to maintain an acceptable service ratio.

The implementation of the Master Plan is not anticipated to increase demand on library facilities and services to a level that would require expansion of existing libraries or construction of new libraries. The existing library facilities on the campus already provide capacity to accommodate the planned 20,000 FTES, associated faculty and staff, and the residents of the University Village

~~market-rate~~campus apartment housing. As a result, impact on libraries resulting from the implementation of the proposed project would be less than significant.

Parks and Recreation

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

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

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

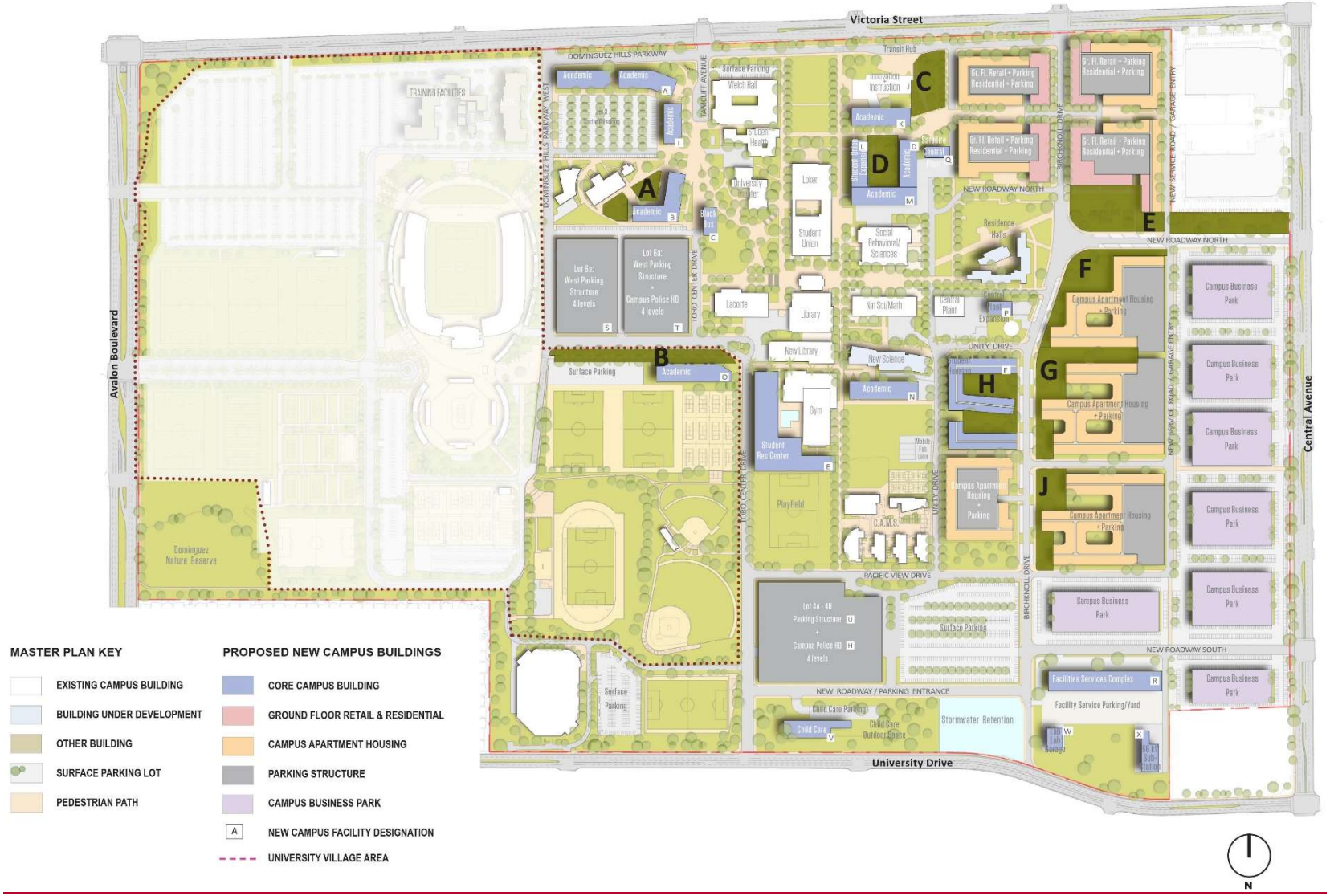
Park and recreational facilities provided pursuant to the Master Plan are anticipated to accommodate the demand for such facilities associated with the incremental increase in student enrollment, additional student beds, and residents of the University Village ~~market-rate~~campus apartment apartments. Specifically, the proposed project would include new park and recreational facilities as identified in **Table 3.8-9**. The proposed project includes a total of 10.95 additional acres of park and recreation facilities as depicted below in **Figure 3.8-4**.

Table 3.8-9
Master Plan Campus Park and Recreation Facilities

Campus Area	Designation	Type	Area
A	Open Space East of Extended Education	Pathways/Open Space	0.50 acres
B	Open Space North of Building O	Pathways/Open Space	1.08 acres
C	Open Space East of Innovation Instruction	Pathways/Open Space	0.75 acres
D	Building L/M/D Courtyard	Pathways/Open Space	0.71 acres
E	University Village Park	Pathways/Open Space/ Children's Play Area	2.87 acres
F	UV Birchknoll Area #1	Pathways/Open Space	1.37 acres
G	UV Birchknoll Area #2	Pathways/Open Space	1.60 acres
H	UV Birchknoll Area #3	Pathways/Open Space	1.13 acres
I	UV Birchknoll Area #4	Pathways/Open Space	0.94 acres

Source: AC Martin Architects

Figure 3.8-4
New Recreation and Open Space (Updated)



The existing campus park and recreation facilities combined with the planned park and recreation facilities included in the proposed project will provide a total of 50.22 acres of park and recreation facilities on campus. These park and recreation facilities will include a broad range of facilities, such as numerous playfields, a jogging trail, a large multi-purpose soccer field, 12 tennis courts, a swimming pool, track and field facilities, baseball and softball fields, the Toro Dome gymnasium, an inline roller rink, natural areas, and numerous open space areas. These facilities will be available to students, faculty and staff, as well as residents of the University Village ~~market-rate~~campus apartment housing.

It is anticipated the proposed project will result in 8,139 on-campus residents, including students residing in student residence halls and apartment-style housing, as well as residents of the University Village ~~market-rate~~campus apartment housing. It will also add a Student Recreation Center that will be available for use by residents of University Village. Neither this facility nor the Toro Gymnasium are included in the calculation of parks and recreation acreage, although each provides a recreational amenity. The 50.22 acres of park and recreation facilities will provide approximately 6.17 acres of park and recreation facilities on campus for every 1,000 campus residents. This figure exceeds the City of Carson's planning goal of four acres of park and recreation facilities per 1,000 residents, and the City of Carson's most recently reported existing condition of 3.5 acres of park and recreation facilities per 1,000 residents, as reported in the City of Carson General Plan.

Based upon the proposed project providing park and recreation facilities in excess of the planning goal stated by the City of Carson, as well as the broad range of park and recreation facilities on campus, the proposed project does not adversely impact service ratios, and will not result in the need for new or physically altered park and recreation facilities. In addition, the campus park and recreation facilities included within the proposed project are more than sufficient to satisfy the demand of on-campus residents as well as non-resident students and faculty including a children's play area in the University Village Park; thus the proposed project is not anticipated to result in any added demand to community park and recreation facilities such that substantial deterioration would occur or be accelerated. Finally, none of the park and recreation facilities included in the proposed project will result in any adverse physical effect on the environment. Therefore, impacts and park and recreation facilities associated with the implantation of the proposed project are considered less than significant.

Cumulative Impacts

Cumulative impacts can result from individually minor, but collectively significant projects taking place over a period of time. Cumulative impacts on public services and recreation related to the Master Plan could potentially occur if the proposed project is located within close proximity to other developments and/or if other projects would occur at the same time period as those improvements proposed under the Master Plan, i.e., through the 2035 planning horizon.

The proposed project is located within an urban area that is generally built-out with only approximately nine percent of the city vacant and 8.5 percent underutilized per the City of Carson General Plan (2004). To the north and south of the proposed project are established residential neighborhoods. To the west of the proposed project is established residential neighborhoods with pockets of retail/commercial along South Avalon Boulevard. To the east of the proposed project

is established light industrial businesses. In the immediate vicinity of the campus, there is no potential opportunities for infill development. As such, future long-term development in the city over the coming two decades is anticipated to focus on adaptive reuse of "brownfields," redevelopment of underused properties, including the expansion of the city's commercial base and development of mixed-use projects.

Additional research was conducted to determine the potential for cumulative impacts in the near-term horizon on public services and recreation considering other projects within the City of Carson. Based on City of Carson's Development Status Report,[17] which shows all the projects that are either under construction, approved, or under review by the City, all but one of these projects is anticipated to be completed before the construction of the proposed project's expansion of the seating capacity of the StubHub Stadium in 2020. The listed project that may not be completed prior to the construction at the StubHub Stadium is a proposed 32-unit condominium project.

In summary, potential cumulative impacts on fire protection and emergency medical services, police protection, schools, libraries, and parks and recreation facilities would occur with the implementation of the City's General Plan Land Use Element through 2024 concurrent with the implementation of the Master Plan through 2035. Together, both would result in higher residential, commercial, and light industrial density development within the city's boundaries, which in turn would increase the demand for fire protection and emergency medical services, police protection, schools, libraries, and parks and recreation facilities.

The EIR prepared for the City of Carson General Plan concluded that implementation of the General Plan would result in the need for additional fire, police, school, library, park and recreation facilities and services and would result in potentially significant environmental impacts before policies and mitigation. Mitigation included working with the Los Angeles County Library and the LASD to formulate policies to meet identified library and sheriff facility needs that would be incorporated into the City's General Plan. With this mitigation, the impacts on public services and recreation were determined to be less than significant with the exception of impacts to schools. The City of Carson General Plan EIR concluded that impacts to schools would be significant and unavoidable. However, the current student enrollment levels in schools serving the City of Carson generally reflect a substantial decline from the enrollment levels shown in the City of Carson General Plan EIR. Currently, there is substantial excess capacity in the schools serving the City of Carson. Further, because the proposed project is located within a built-out environment with no foreseeable developments that will generate additional students, demand for schools is not anticipated to increase significantly within the vicinity of the proposed project through 2035. Further, based on project analysis and conservative projections, the projected number of students generated from the Master Plan would only account for approximately 36 percent of existing excess capacity for elementary schools, and approximately 21 percent of existing excess capacities of middle and high schools that are within a two-mile radius of the campus.

As discussed in the analysis above, impacts to fire protection and emergency medical services, police protection, schools, library facilities, and parks and recreation facilities from campus

[17] City of Carson, Major Projects List, July 11, 1018, http://ci.carson.ca.us/content/files/pdfs/planning/Development_Status_Report.pdf.

development under the Master Plan would be less than significant. Based on the impact analysis contained in this EIR and the EIR prepared for the City's General Plan, cumulative impacts to fire protection and emergency medical services, police protection, schools, library facilities, and parks and recreation facilities would also be less than significant.

Mitigation Measures

The implementation of the Master Plan would have less than significant impacts on fire protection and emergency medical services, police protection, schools, libraries, and parks and recreation facilities. Therefore, no mitigation is needed.

3.9 Traffic and Circulation

This section analyzes the potential traffic and circulation impacts associated with the CSUDH 2018 Campus Master Plan, including parking, transit, bicycle, and other modes of transportation. The analysis is based largely on the "Transportation Impact Study , 2018 Campus Master Plan, California State University, Dominguez Hills" (WSP, February 2019) (TIS). The TIS is included in **Appendix F** of this Draft EIR. This section also is based on the California State University Transportation Impact Study Manual (November 2012), prepared by Fehr & Peers, which is incorporated by reference and available for public review and inspection upon request to CSUDH.

Environmental Setting

Regulatory Framework

California State University: Transportation Impact Study Manual

The California State University *Transportation Impact Study Manual* (November 2012) provides guidance in assessing a project's transportation-related impacts, including whether such impacts are significant. The relevant guidance and criteria are listed below.

Off-Site Traffic Operations

- A roadway segment or intersection operates at LOS D or better under a no project scenario and the addition of project trips causes overall traffic operations on the facility to operate at LOS E or F;
- A roadway segment or intersection operates at LOS E or F under a no project scenario and the project adds both 10 or more peak hour trips and 5 seconds or more of peak hour delay, during the same peak hour; or
- If an intersection operates at a very poor LOS F (control delay of 120 seconds or more), the significance criterion shall be an increase in v/c ratio of 0.02 or more.

Bicycle and Pedestrian Facilities

The Transportation Impact Study Manual specifies that the TIS should provide the following information regarding bicycle and pedestrian facilities.

- A qualitative description of existing bicycle and pedestrian facilities in the project vicinity, including identifying the location and type of bicycle facilities, presence of sidewalks, and the level of usage; and
- A map showing existing and planned bicycle facilities in the study area.

For projects in urban areas with more extensive bicycle and pedestrian usage, the Study Manual specifies that the TIS should provide additional descriptive information and discussion regarding bicycle and pedestrian facilities, deficiencies, access, project vicinity-related information, and other pertinent graphics.

The Study Manual also defines the significance criteria for bicycle and pedestrian impacts, as follows:

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

Transit

The Transportation Impact Study Manual specifies that the TIS should provide the following information regarding transit facilities:

- A qualitative description of transit service and route connectivity in the project area, including campus shuttle service, local bus service, and regional bus or rail service; and
- A map showing transit routes within two miles of the project site.

For projects in urban areas with more extensive transit service, the Study Manual specifies that the TIS should provide additional descriptive information and discussion regarding routes, timing, capacities, and bus-stop information.

The Study Manual also defines the significance criteria for transit impacts; namely, a significant impact would occur if:

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

Intersection Traffic Control

The Transportation Impact Study Manual identifies significance criteria to control traffic at intersections; namely, a significant impact would occur if:

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

Transportation Plan Consistency

The Transportation Impact Study Manual identifies significance criteria for transportation plan consistency; namely, a significant impact would occur if:

- A project significantly conflicts or creates significant inconsistencies with applicable transportation policies or the Campus Master Plan transportation policies.

Safety

The Transportation Impact Study Manual identifies significance criteria for transportation-related safety; namely, a significant impact would occur if:

- A project directly or indirectly causes or exposes all users (motorists, pedestrians, bicyclists, and bus riders) to a permanent and substantial transportation hazard due to a new or existing physical design feature or incompatible uses.

Construction Period (Temporary)

The Transportation Impact Study Manual identifies significance criteria for temporary construction periods; namely, a significant impact would occur if:

- The construction of a project creates a temporary but prolonged significant impact due to lane closures, need for temporary signals, emergency vehicles access, traffic hazards to bikes/pedestrians, damage to roadbed, truck traffic on roadways not designated as truck routes, etc.

On-Site Circulation

The Transportation Impact Study Manual identifies significance criteria for on-site circulation; namely, a significant impact would occur if:

- Project designs for on-site circulation, access, and parking areas are inconsistent with the circulation and parking plans in the Campus Master Plan or with applicable roadway design standards.
- A project fails to provide adequate accessibility for service and delivery trucks on-site, including access to truck loading areas.
- A project fails to provide adequate accessibility for buses accessing appropriate drop-off areas on-campus.
- A project fails to provide adequate accessibility for pedestrians and bicyclists.

Parking

Based on current CEQA guidance, parking availability does not need to be analyzed. However, pursuant to the Transportation Impact Study Manual, a campus may prepare an analysis of parking conditions to show adequate parking will be provided for a project; and such analysis should include a summary of existing on-campus parking supply and usage, and data collection information for parking occupancy.

Other Agency Criteria

The California State University is governed by the Board of Trustees, which is the State of California acting in its higher education capacity. As an entity of the State of California, CSU and its campuses, including CSUDH, is not subject to local regulations such as traffic guidelines or traffic significance criteria issued by a city or county. Thus, while CSU strives to work with local governments and develop its campuses in a manner compatible with local planning objectives where feasible, CSU is not subject to local planning requirements. Accordingly, for information purposes, listed below are City of Carson, City of Compton, and County of Los Angeles policies or criteria that CSUDH has reviewed in preparing this traffic analysis.

City of Carson

The City of Carson has the following policy regarding intersection impacts:

Policy: TI-2.1 — Require that new projects not cause the Level of Service for intersections to drop more than one level if it is at Level A, B or C, and not drop at all if it is at D or below, except when necessary to achieve substantial City development goals.

City of Compton

The City of Compton has established LOS D as a target LOS standard, and LOS E as a threshold standard. The City recognizes that not all intersections within the City can meet the target LOS D. In these instances, the City Council must find that the improvements necessary to meet the target LOS D are not feasible because of one or more of the following reasons:

- The cost of the necessary improvements exceeds available funding sources;
- The design of the necessary improvements is not compatible with the surrounding land uses; or,
- The design of the necessary improvements is contrary to other established City policies.

Los Angeles County

Los Angeles County Traffic Impact Analysis Report Guidelines define thresholds based on the volume-to-capacity (V/C) ratio. The County thresholds are summarized in **Table 3.9-1**, Los Angeles County Intersection Impact Thresholds.

Table 3.9-1
Los Angeles County Intersection Impact Thresholds

Pre-Project Condition		Increase in V/C from Project
LOS	V/C Ratio	
C	0.71 to 0.80	0.04 or more
D	0.81 to 0.90	0.02 or more
E/F	0.91 or more	0.01 or more

Source: TIS (February 2019)

Freeways

Caltrans has established guidelines for analyzing impacts on the state highway system. These guidelines require that a project's impacts be analyzed when a project:

- Generates over 100 peak hour trips assigned to a State highway facility
- Generates 50 to 100 peak hour trips assigned to a State highway facility — and, affected State highway facilities are experiencing noticeable delay; approaching unstable traffic flow conditions (LOS C or D).
- Generates 1 to 49 peak hour trips assigned to a State highway facility — the following are examples that may require a full traffic impact study or some lesser analysis:
  - Affected State highway facilities experiencing significant delay; unstable or forced traffic flow conditions (LOS E or F). Los Angeles County CMP methodology recognizes increasing levels of severity beyond LOS F as F(0), F(1), F(2), and F(3).
  - The potential risk for a traffic incident is significantly increased (i.e., congestion related collisions, non-standard sight distance considerations, increase in traffic conflict points, etc.).

Congestion Management Plan Analysis

The Los Angeles County CMP establishes guidelines for analyzing impacts on the transportation system. These guidelines require that a project's impacts be analyzed for:

- All CMP arterial monitoring intersections, including monitored freeway on- or off-ramp intersections, where the proposed project will add 50 or more trips during either the AM or PM weekday peak hours.
- If CMP arterial segments are being analyzed rather than intersections, the study area must include all segments where the proposed project will add 50 or more peak hour trips (total of both directions).

- Mainline freeway monitoring locations where the project will add 150 or more trips, in either direction, during either the AM or PM weekday peak hours.
- The Los Angeles County CMP establishes guidelines for significant impacts of projects. A significant impact occurs when the project increases the traffic demand by 2% of capacity (D/C ≥ 0.02) causing an LOS F (D/C > 1.00). If the facility is already at LOS F, a significant impact occurs when the proposed project increases the traffic demand by 2% of capacity (D/C ≥ 0.02).

Existing Conditions

Project Site

The CSUDH 344-acre campus is located within the City of Carson, in the County of Los Angeles. **Figure 3.9-1**, Aerial Photograph of CSU Dominguez Hills Campus 2016, is an aerial photograph of the current campus, bounded on the north by Victoria Street, on the south by University Avenue, on the west by Avalon Boulevard, and on the east by Central Avenue. **Figure 3.9-1** also shows the area of the campus leased to StubHub Center's parent company, AEG, for the StubHub Center — an athletics and entertainment venue for soccer, tennis, track and field, and cycling, including the existing 27,000-seat stadium and associated parking.

Figure 3.9-1
Aerial Photograph of CSU Dominguez Hills Campus 2016

The area surrounding the CSUDH campus is comprised primarily of existing residential development on the north across from Victoria Street; on the south across from University Avenue; and on the west across from Avalon Boulevard. Except for the existing Pueblo Dominguez student housing on the eastern side of the campus comprising 649 beds and

associated parking, significant portions of the east side campus are underutilized and available for development. Light industrial development is located to the northeast and to the east across from Central Avenue. **Figure 3.9-2**, Surrounding Land Uses, illustrates the existing land uses surrounding the CSUDH campus.

Figure 3.9-2
Surrounding Land Uses

Since its inception, the CSUDH campus has been planned to accommodate 20,000 full-time equivalent students (FTES). This target student capacity remains unchanged under the 2018 Campus Master Plan; that is, the proposed 2018 Campus Master Plan does not propose an increase in FTES beyond the previously approved 20,000 FTES. At this time, the total existing campus physical capacity with all of its classrooms, laboratories, and other instructional space is at a level that will support approximately 11,000 FTES. The *2018 Campus Master Plan Guidelines* make clear, however, that a number of the buildings on campus have reached the end of their useful life due to their age or condition. Further, as the student population increases to 20,000 FTES, the campus must add additional space to accommodate the increase in the number of students.

Roadway Network

Campus Roadways/Entries/Parking

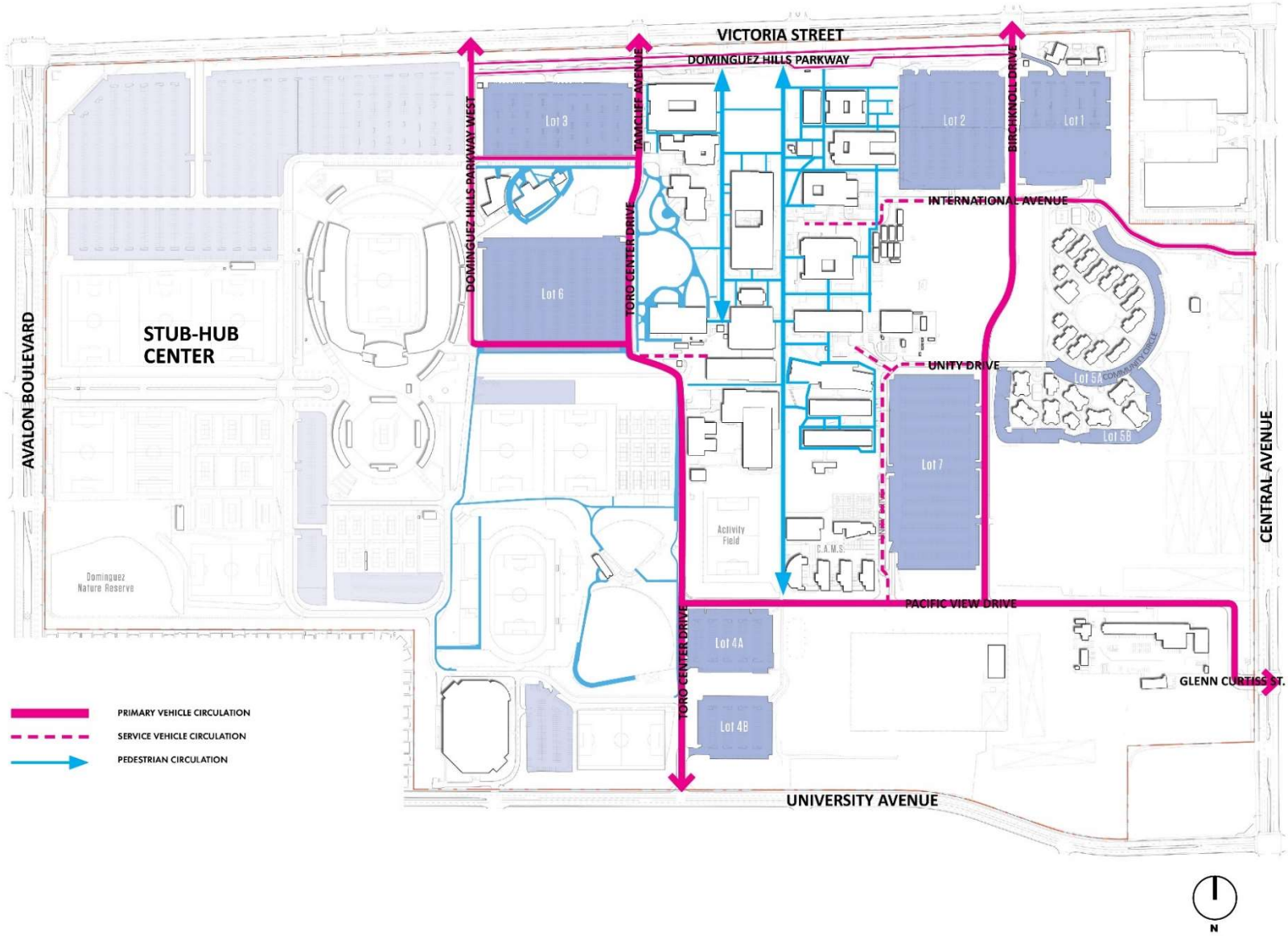
Figure 3.9-3, Existing Campus Roadways, Entries, and Parking, shows the primary CSUDH campus roadways, access points, and parking facilities, including existing service vehicle and pedestrian circulation. Toro Center Drive is the existing major campus north-south roadway, connecting to the main campus access points at Tamcliff Avenue/Victoria Street to the north and University Avenue to the south. Birchknoll Drive also enters the campus at the north, from Victoria Street, but extends to the south to Pacific View Drive

and the indirect extension of Glenn Curtiss Street, accessing the campus from Central Avenue.

The existing campus access points at Tamcliff Avenue and Victoria Street, at Birchknoll Drive, and at Glenn Curtiss Street are signalized intersections. Other access points such as the southern campus entry off University Avenue at Toro Center Drive are not signalized.

Existing campus parking is distributed among the seven existing surface lots, also illustrated in **Figure 3.9-3**, below. The existing Pueblo Dominguez student housing is served by its own dedicated parking (see Lots 5a and 5b). The total existing parking supply on campus is 4,881 parking spaces.

Figure 3.9-3
Existing Campus Roadways, Entries, and Parking



Regional Roadways

Primary regional access to the campus is provided by four major freeways in the campus vicinity: SR-91 and three Interstate highways (I-110, I-405, I-710). The SR-91 provides east-west regional connection while all three interstate highways provide north-south regional connections. The major streets and arterials that serve the campus and the surrounding area include: Avalon Boulevard, Victoria Street, University Drive, Central Avenue, Wilmington Avenue, Wilmington Avenue, Del Amo Boulevard, Artesia Boulevard, Albertoni Street, Main Street, and Figueroa Street. The following is a brief description of the primary roadways in the vicinity of the campus.

California State Route 91 (SR-91) is a major east-west freeway through the Los Angeles area. In the vicinity of campus, SR-91 has four lanes in each direction with two frontage roads. The campus is accessed from SR-91 via Central Avenue and Avalon Boulevard.

Interstate 110 (I-110) is a north-south freeway to the west of the campus with four lanes in each direction. The campus is accessed from I-110 via 190th Street, which turns into Victoria Street in the vicinity of the campus.

Interstate 405 (I-405) is a north-south freeway with four lanes in each direction. The campus is accessed from I-405 via 190th street, Main Street, Del Amo Boulevard, and Wilmington Ave.

Interstate 710 (I-710) is a nine lane north-south freeway to the east of the campus. The campus is accessed from I-710 via Del Amo Boulevard.

Avalon Boulevard is a north-south street classified as a major highway. Avalon Boulevard connects the west side of the campus to SR-91 in the north and I-405 in the south. Avalon Boulevard is a six-lane street with three lanes in each direction. Avalon Boulevard includes a landscaped median, which incorporates left turn lanes at major intersections and high voltage power lines.

Victoria Street is a four-lane east-west street with two lanes in each direction. Victoria Street is classified as a major highway, and it connects the north side of the campus to/from I-110 and I-405. East of Central Avenue and west of the campus, Victoria Street includes a middle central left turn lane. The central left turn lane becomes a landscaped median by the campus with left turn lanes at all intersections.

University Drive runs east-west and provides access to the south side of the campus. University Drive extends from Avalon Boulevard to the west to just east of Wilmington Street, and is classified as a secondary highway with two lanes in each direction. University Drive includes a central left turn lane in the vicinity of the campus and a median with turn lanes through the rest of the study area.

Central Avenue is located to the east side of campus and runs north-south. Central Avenue is classified as a major highway with two lanes in each direction. Central Avenue connects

the east side of campus to SR-91 to the north and extends to Del Amo Boulevard to the south.

Wilmington Avenue is a north-south street located east of campus that is classified as a secondary highway. Wilmington Avenue has three lanes in each direction and connects to SR-91 to the north and I-405 to the south.

Del Amo Boulevard is an east-west running secondary highway that connects to I-405 to the west and I-710 to the east.

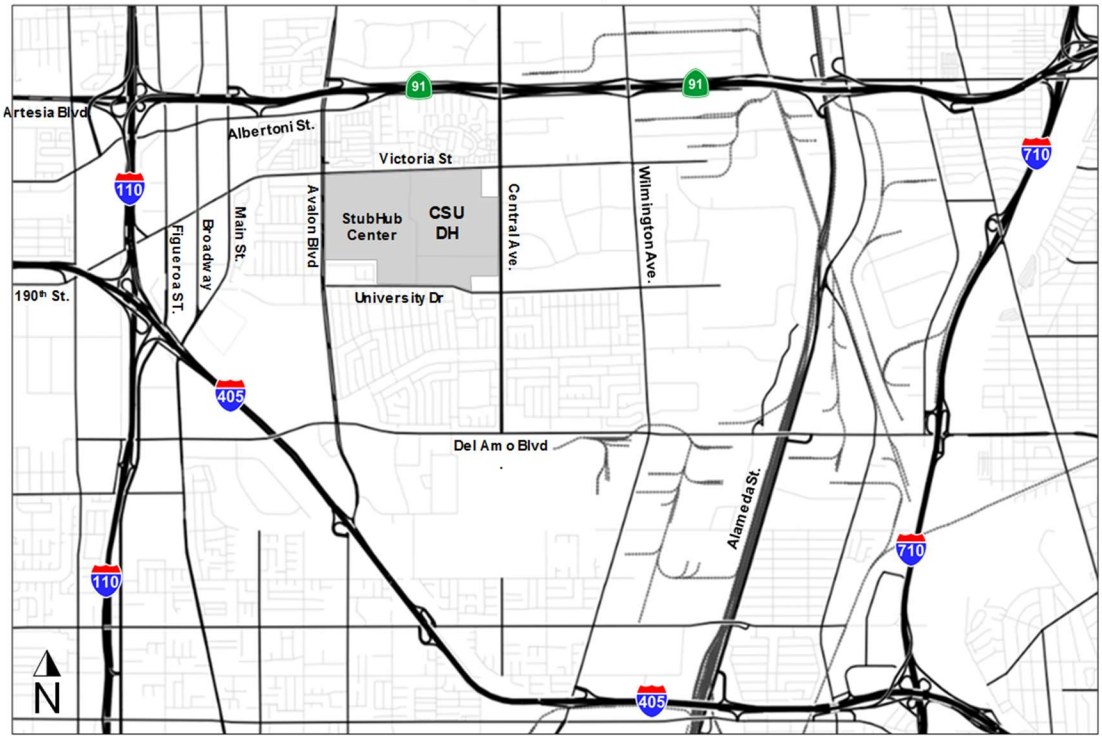
Artesia Boulevard and Albertoni Street are frontage roads for SR-91 that run in an east-west direction. In Carson, Artesia Boulevard runs to the north of SR-91 and Albertoni Street runs south of SR-91. West of Carson, Artesia Boulevard functions as a western arterial extension of SR-91. In the vicinity of the campus, Artesia Boulevard is classified as a collector with two lanes in each direction.

Main Street is a four-lane north-south street located one-half mile west of campus with two lanes in each direction. Main Street is classified as a major highway.

Figueroa Street is a four-lane north-south street located 0.9 miles west of the campus with two lanes in each direction. Figueroa Street is classified as a major highway.

Figure 3.9-4, Existing Roadway Network, illustrates the existing roadway network in the vicinity of the campus.

Figure 3.9-4
Existing Roadway Network

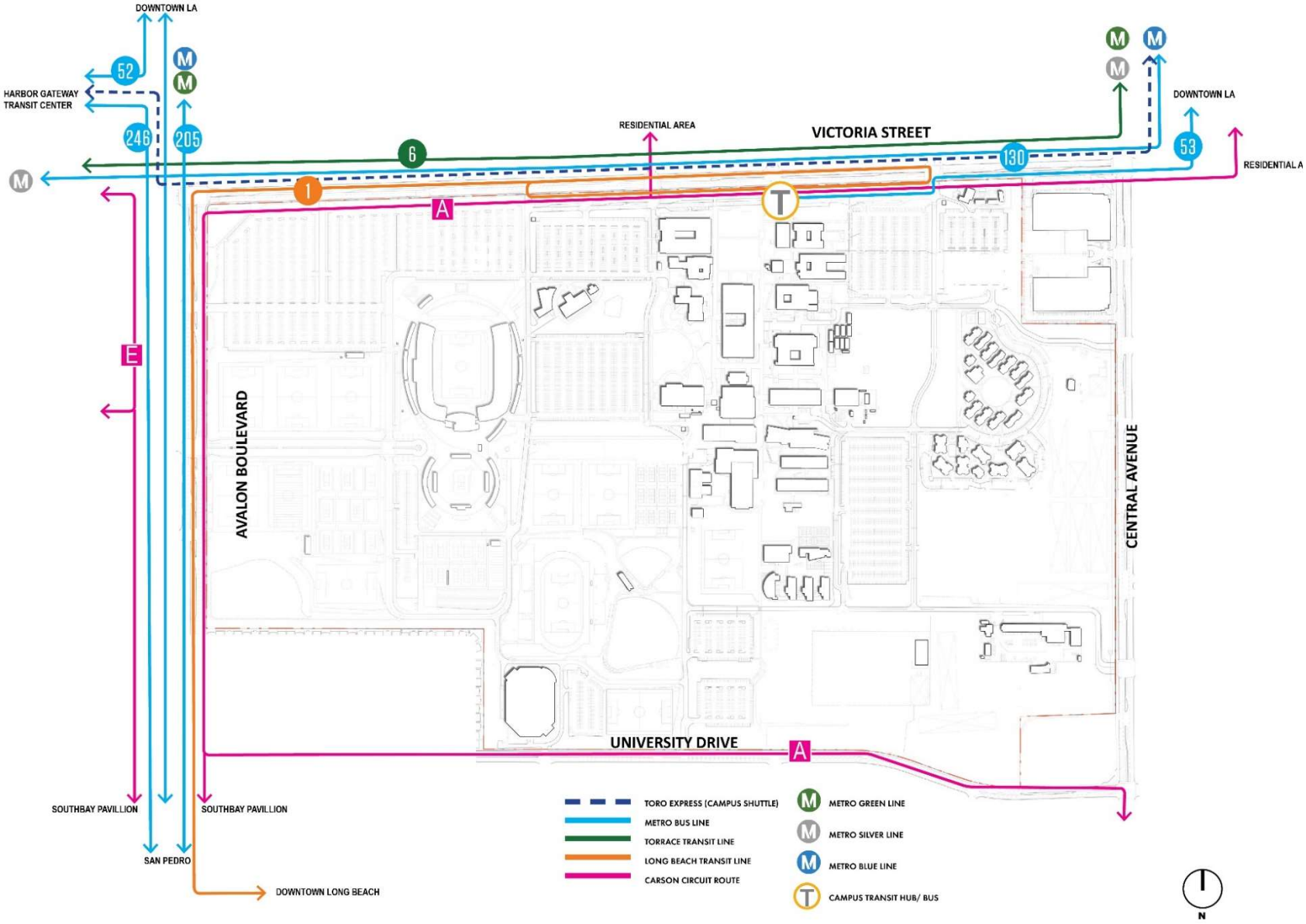


Transit

Campus Transit

The existing commuter/transit hub located along the Dominguez Hills Parkway frontage road on the north edge of the campus supports public transit serving the campus, as well as the Toro Express campus shuttle. The Toro Express shuttle connects the campus to regional transit hubs, namely, the Metro Harbor Gateway Transit Center (formerly Artesia Transit Center) to the west, and the Metro Blue Line to the east. **Figure 3.9-5**, Existing Campus Transit, depicts existing campus transit.

Figure 3.9-5
Existing Campus Transit



Regional Transit

The campus, including the StubHub Center, is currently served by several transit agencies with three Carson Circuit routes, five Metro bus routes, the Metro Blue line, the Compton Renaissance Transit Systems, Long Beach Transit, and Torrance Transit.

- **Metro Blue Line** – Provides weekday and weekend services from downtown Los Angeles to Long Beach. The route travels from downtown Los Angeles through south Los Angeles to downtown Long Beach covering up to 24 miles. The weekday headways are approximately 12 minutes.
- **Metro Route 52** – Provides weekday and weekend services traveling east and west between Koreatown, stopping in Downtown Los Angeles, and Harbor Gateway with weekday headways at approximately 10 minutes.
- **Metro Route 53** – Provides service directly to the CSU Dominguez Hills campus from downtown Los Angeles, running north and south along Central Avenue. The service runs weekdays and weekends with weekday headways at approximately 10 minutes.
- **Metro Route 130** – Provides service east and west from Artesia to Redondo Beach with weekday headways at approximately 20 minutes. The line connects the campus to the Metro Silver line to the west and the Metro Blue line to the east.
- **Metro Route 205** – Provides service north and south along Avalon Boulevard from downtown Los Angeles to San Pedro with weekday headways of approximately 30 minutes. The line connects the campus with San Pedro, Harbor-UCLA Medical Center, and the Metro Blue and Green lines.
- **Metro Route 246** – Provides service north and south along Avalon Boulevard connecting the campus to the Harbor Gateway Station, located in Gardena, and San Pedro. Weekday headways are approximately 30 minutes.

The City of Carson bus system runs at 40-minute weekday headways and provides service on Saturdays, but not on Sundays.

- **Carson Circuit Route A** – This route runs north and south along Avalon Boulevard and east and west along Victoria Street and University Drive. The line connects the campus and StubHub Center with the South Bay Pavilion and the surrounding community to the east and south. The line operates from 5:20 AM to 6:40 PM on weekdays, and 10:40 AM to 5:20 PM on Saturday.
- **Carson Circuit Route E** –This route runs north and south along Avalon Boulevard and serves CSU Dominguez Hills and the surrounding vicinity south towards Del Amo Boulevard. The bus operates from 5:20 AM to 6:40 PM on weekdays, and 10:40 AM to 5:20 PM on Saturday.
- **Carson Circuit Route H** –This route serves Hemingway Park, located in the city of Carson, and the surrounding vicinity. The bus operates from 5:20 AM to 6:40 PM on weekdays, and 10:40 AM to 5:20 PM on Saturday.

- **Long Beach Transit Route 1** – This route travels west providing service from the Long Beach Transit Gallery in downtown Long Beach to the campus and StubHub Center. With headways at 5 minutes during weekday service, the bus starts running at 5:30 AM to 10:07 PM and 7:00 AM to 8:38 PM during weekend service.
- **Compton Renaissance Route 5** – This route provides service in the east portion of the City of Compton with headways 60 minutes during weekday service. The bus service starts running at 7:30 AM to 3:22 PM and 9:00 AM to 2:52 PM on Saturdays. The service does not run on Sundays.
- **Torrance Transit Bus Lines Route 6** – This route provides service from the Del Amo Fashion Center east to Artesia, making stops at CSU Dominguez Hills and the StubHub Center, with weekday headways at 40 minutes. The line connects the campus to the Torrance Civic Center, Metro Silver line, and the Metro Blue line.

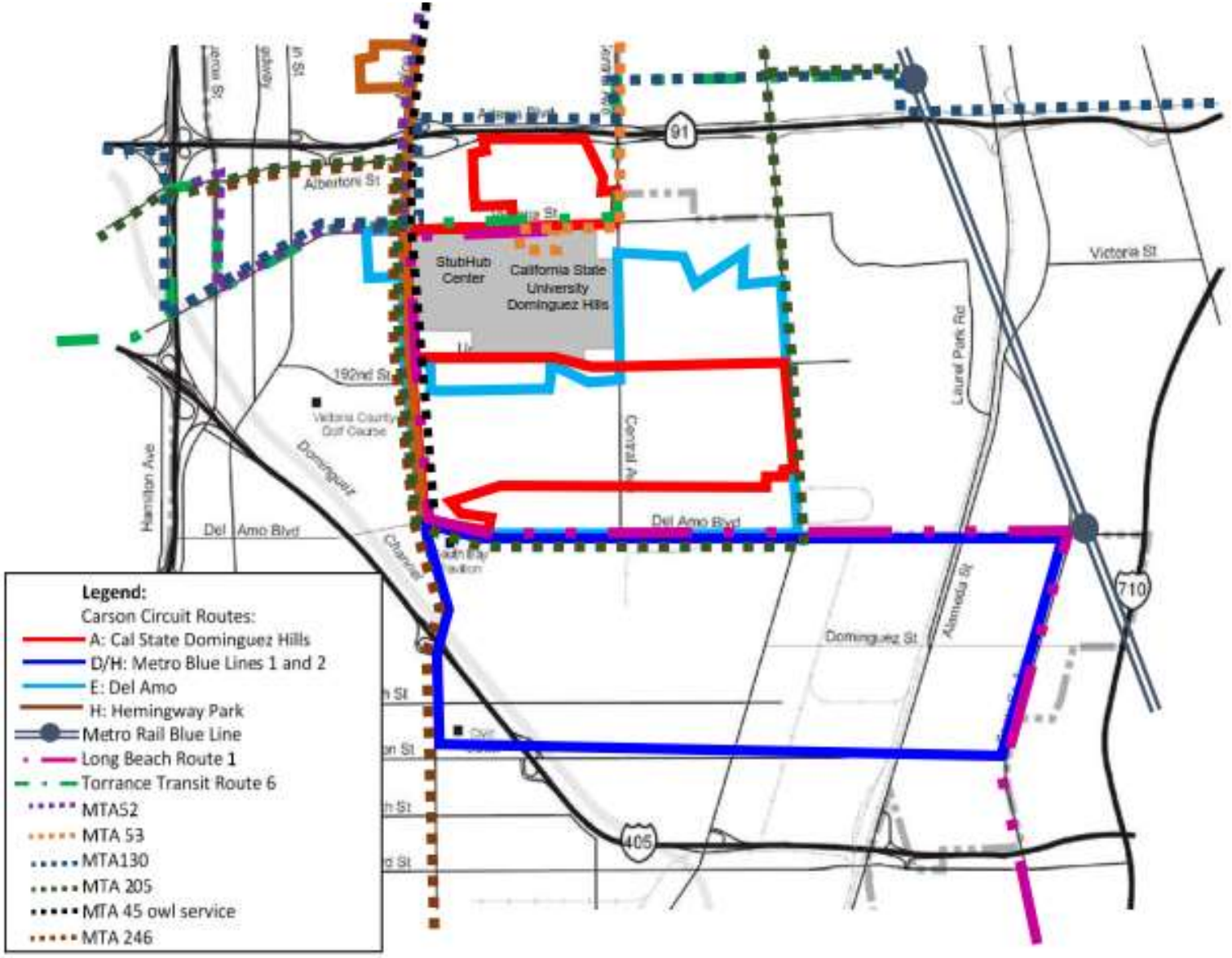
Table 3.9-2, Weekday Transit Services in Project Area, shows the transit routes that serve the project area and weekday operating hours and peak headways. **Figure 3.9-6**, Weekday Transit Services, illustrates the existing transit routes that serve the area in relation to the campus and StubHub Center.

Table 3.9-2
Weekday Transit Services in Project Area

Transit Route	Weekday Operating Hours	Peak Headways
Carson Circuit Route A	5:20 am to 6:40 am	40 minutes
Carson Circuit Route E	5:20 am to 6:40 am	40 minutes
Carson Circuit Route H	5:20 am to 6:40 am	40 minutes
Compton Renaissance Route 5	7:30 am to 3:30 pm	1 hour
Long Beach Route 1	5:00 am to 10:30 pm	5 minutes
LA Metro Blue Line	3:30 am to 2:30 pm	12 minutes
Metro Route 52	4:00 am to 1:00 am	10 minutes
Metro Route 53	4:00 am to 1:00 am	10 minutes
Metro Route 130	5:00 am to 10:00 pm	20 minutes
Metro Route 205	4:00 am to 11:30 pm	30 minutes
Metro Route 246	4:00 am to 2:30 am	30 minutes
Torrence Transit Bus Lines Route 6	5:20 am to 8:30 pm	40 minutes

Source: TIS (February 2019)

Figure 3.9-6
Weekday Transit Services



Bicycle and Pedestrian Facilities

Campus Bicycle/Pedestrian Facilities

The use of bicycles to, from, and within the CSUDH campus is currently at a relatively low level for a variety of reasons, including: (a) heavy reliance upon the automobile in southern California, (b) the relatively limited number of student housing units available within biking distance of campus, and (c) there are very few bicycle facilities on campus (e.g., bike racks, storage, lockers, or showers).

The existing pedestrian circulation system within the campus serves all areas, and has both strengths and weaknesses in terms of identity, visibility, and contribution to a campus way-finding system. Of the main north-south pedestrian pathways, the existing East Walkway is the most readily recognized major pedestrian route through the campus. The West Walkway is also clearly recognized as an important existing pedestrian route; however, there are weaknesses with regard to the existing pedestrian circulation system, including that some pathways are ambiguous routes, narrow, unpaved or not landscaped, and start or end at uninviting service areas.

Regional Bicycle/Pedestrian Facilities

Currently, existing bicycle facilities in the vicinity of the campus include a bike path that runs north and south on the east side of campus along South Central Avenue, and a bike lane along University Street south of campus that extends from Avalon Boulevard to Wilmington Avenue. Existing facilities near the campus include Class 1 (bicycle paths), Class 2 (bicycle lanes), and Class 3 (bicycle routes) facilities. **Figure 3.9-7**, Existing Bicycle Facilities in Project Area, illustrates the existing and planned bikeways in the campus vicinity.

The existing pedestrian network within and adjacent to the campus consists of sidewalks, pedestrian crosswalks, and pedestrian crossing controls on major streets near the campus. The major streets near campus, including Avalon Boulevard to the west of the stadium, Victoria Street to the north, Central Avenue to the east, and University Avenue to the south, each have sidewalks on both sides of the street. Crosswalks and pedestrian signals are provided at the major intersections.

Figure 3.9-7
Existing Bicycle Facilities in Project Area

Existing Traffic Conditions

The project study area intersections were selected for analysis based on the potential that the addition of project traffic, either directly or indirectly, would result in a significant impact at the identified location. **Table 3.9-3**, Study Area Intersections, provides a list of the project study area intersections, the corresponding jurisdiction, whether the location is included within the County of Los Angeles Congestion Management Program (CMP), and the scenarios under which the intersection was analyzed. Four scenarios are analyzed in this section: Existing plus Project (Weekdays and Sundays, separately); Year 2019 Sunday plus Project; Interim Year (2025); and Buildout Year (2035) (Weekdays and Sundays, separately). **Figure 3.9-8A**, Study Area Intersections 1-32 and 38-42, displays the locations of the study area intersections numbered 1-32 and 38-42. **Figure 3.9-8B**, Study Area Intersections 33-37, shows the locations of the study area intersections 33-37. Based on the Project trip distribution patterns, Intersections 1-37 are analyzed under the weekday analysis scenarios; additional Intersections 38-42 would only be potentially impacted under the Sunday Stadium scenarios.

Table 3.9-3
Study Area Intersections

No.	Location	Jurisdiction	CMP	Scenarios
1	Victoria St./Drive D	City of Carson		All
2	Victoria St./Tamcliff Ave.	City of Carson		All
3	Victoria St./Birchknoll Dr.	City of Carson		All
4	Victoria St./Project Service Rd.	City of Carson		Weekday Only
5	Central Ave./Charles Willard St.	City of Carson		Weekday Only
6	Central Ave./Project Driveway/Beachey Pl.	City of Carson		Weekday Only
7	Central Ave./Glenn Curtiss St.	City of Carson		Weekday Only
8	University Dr./Birchknoll Dr. Extension	City of Carson		Weekday Only
9	University Dr./Toro Center Dr.	City of Carson		All
10	Albertoni St./SR 91 EB Ramps	City of Carson		All
11	Avalon Blvd./SR 91 WB On-Ramp	City of Carson		All
12	Avalon Blvd./Albertoni St.	City of Carson		All
13	Avalon Blvd./Victoria St.	City of Carson		All
14	Central Ave./Artesia Blvd. WB	City of Compton		All
15	Central Ave./Albertoni St./Artesia Blvd. EB	City of Compton		All
16	Central Ave./Victoria St.	City of Carson		All
17	Wilmington Ave./Artesia Blvd. WB	City of Compton		All
18	Wilmington Ave./Artesia Blvd. EB	City of Compton		All
19	Wilmington Ave./Victoria St.	City of Compton		All
20	I-110 SB Off-Ramp/190th St.	Caltrans		Weekday Only

Table 3.9-3
Study Area Intersections

No.	Location	Jurisdiction	CMP	Scenarios
21	I-110 NB On-Ramp/190th St.	Caltrans		Weekday Only
22	Figueroa St./190th St./Victoria St.	City of Carson		All
23	Broadway/Victoria St.	City of Carson		Weekday Only
24	Main St./Victoria St.	City of Carson		All
25	Avalon Blvd./University Dr.	City of Carson		All
26	Avalon Blvd./Del Amo Blvd.	City of Carson		All
27	Avalon Blvd./I-405 NB Ramps	Caltrans		All
28	Avalon Blvd./I-405 SB Ramps	Caltrans		All
29	Central Ave./University Dr.	City of Carson		All
30	Wilmington Ave./University Dr.	LA County		All
31	Central Ave./Del Amo Blvd.	City of Carson		All
32	Wilmington Ave./Del Amo Blvd.	LA County		All
33	W. Artesia Blvd./Crenshaw Blvd.	LA County	X	Weekday Only
34	W. 190th St./S. Western Ave.	LA County	X	Weekday Only
35	W. Artesia Blvd./Vermont Ave.	LA County	X	Weekday Only
36	Alameda St./Compton Blvd.	City of Compton	X	Weekday Only
37	Alameda St./SR 91 EB Ramps	Caltrans	X	Weekday Only
38	Avalon Blvd./184th St.	City of Carson		Sunday Only
39	Avalon Blvd./182nd St.	City of Carson		Sunday Only
40	Victoria St./Drive C	City of Carson		Sunday Only
41	Victoria St./Rainsbury Ave.	City of Carson		Sunday Only
42	Avalon Blvd./Harbor Village/Colony Cove	City of Carson		Sunday Only

Source: TIS (February 2019)

Existing Weekday Conditions

Study Area Intersections

Traffic operational conditions at intersections are described in terms of Level of Service (LOS). LOS ranges from LOS A — which indicates that vehicles experience little delay in passing through the intersection, to LOS F — which indicates that vehicles are likely to

encounter long queues and stop-and-go conditions. LOS D is considered a target LOS for intersection operations[1].

Defined performance criteria are used to describe traffic conditions. The criteria are based on two primary measures: (1) capacity, which establishes the vehicle carrying ability of a roadway; and (2) volume, which is either a traffic count (in the case of existing volumes) or a forecast for a future point in time. The ratio between the volume and the capacity yields a Volume-to-Capacity (V/C) ratio, upon which a corresponding Level of Service (LOS) is defined.

Table 3.9-4, LOS Descriptions – Roadways and Intersections, shows the traffic flow quality by LOS for roads and intersections.

[1] The California State University Transportation Impact Study Manual.

Table 3.9-4
LOS Descriptions—Roadways and Intersections

LOS	Traffic Flow Description	Volume to Capacity
A	Minimal or no vehicle delay.	0.00–0.60
B	Slight delay to vehicles.	0.61–0.70
C	Moderate vehicle delays, traffic flow remains stable.	0.71–0.80
D	More extensive delays at intersections.	0.81–0.90
E	Long queues create lengthy delays.	0.91–1.00
F	Severe delays and congestion.	>1.00

Note:

V/C = Volume-to-Capacity ratio

Source: Transportation Research Board, National Research Council Highway Capacity Manual 2010; Congestion Management Program of Los Angeles County; TIS (February 2019).

Figure 3.9-8A
Study Area Intersections 1-32 and 38-42

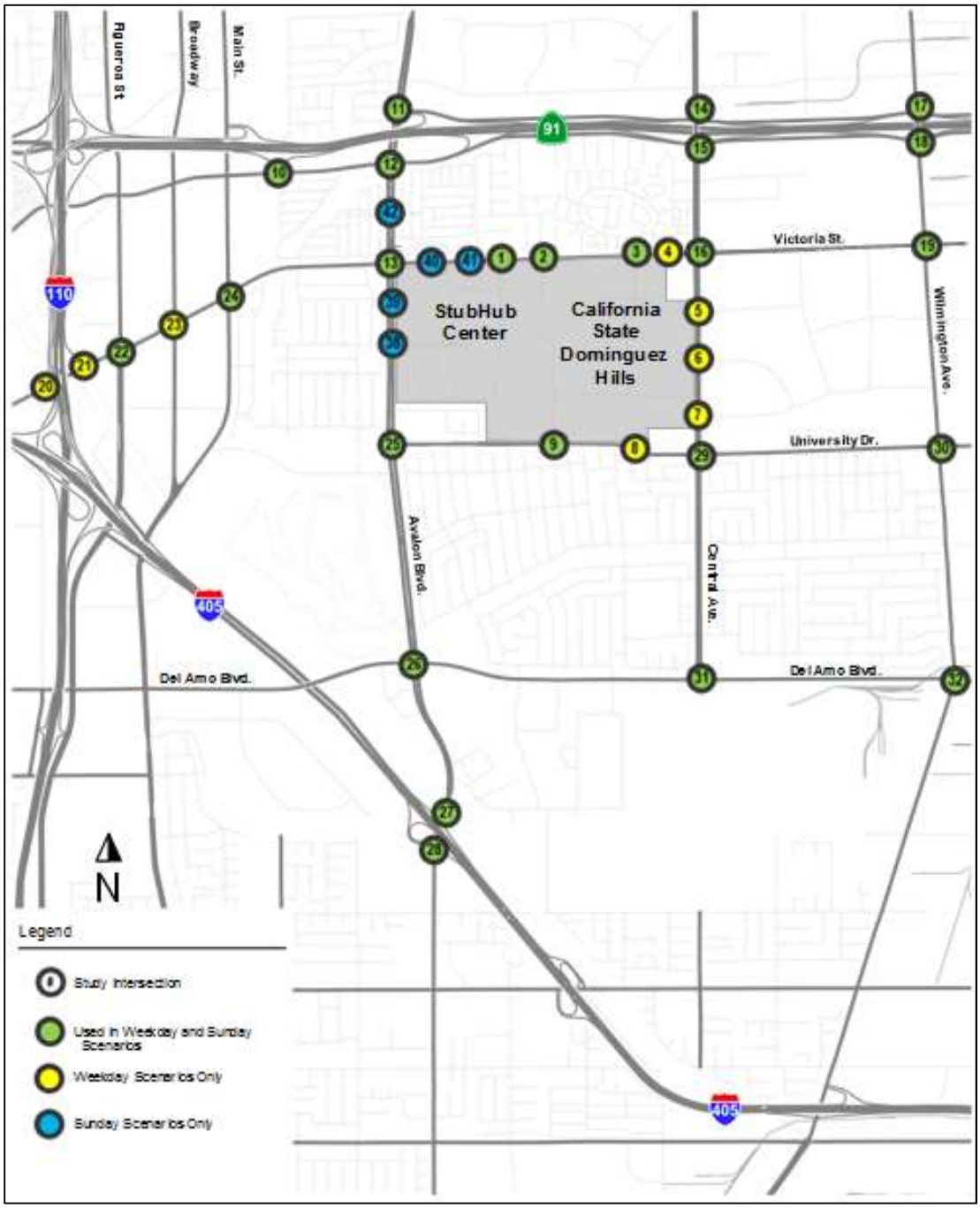


Figure 3.9-8B
Study Area Intersections 33-37

Table 3.9-5, Existing Weekday LOS at Study Area Intersections, shows the existing weekday LOS conditions at the study area intersections; traffic volumes are shown in Exhibit 17 of the TIS (February 2019). Existing AM and PM peak-hour traffic counts were collected in the spring 2017 when the University was in session.

Table 3.9-5
Existing Weekday LOS at Study Area Intersections

Study ID	Intersection Name	Control Type	AM Peak Hour		PM Peak Hour	
			V/C Ratio or Delay	LOS (ICU or HCM)	V/C Ratio or Delay	LOS (ICU or HCM)
1	Victoria St./Drive D	TWSC	15.8	C	143.6	**F**
2	Victoria St./Tamcliff Ave.	Signalized	0.405	A	0.556	A
3	Victoria St./Birchknoll Dr.	Signalized	0.528	A	0.648	B
4	Victoria St./Project Service Rd.	N/A	N/A	N/A	N/A	N/A
5	Central Ave./Charles Willard St.	TWSC	19.4	C	19.3	C
6	Central Ave./Beachey Pl.	TWSC	15.7	C	16.8	C
7	Central Ave./Glenn Curtiss St.	Signalized	0.42	A	0.445	A
8	University Dr./Birchknoll Dr. Ext.	N/A	N/A	N/A	N/A	N/A
9	University Dr./Toro Center Dr.	TWSC	12.3	B	13.8	B
10	Albertoni St./SR 91 EB Ramps	Signalized	0.527	A	0.763	C
11	Avalon Blvd./SR 91 WB On-Ramp	Signalized	0.5	A	0.499	A
12	Avalon Blvd./Albertoni St.	Signalized	0.589	A	0.77	C
13	Avalon Blvd./Victoria St.	Signalized	0.531	A	0.804	D
14	Central Ave./Artesia Blvd. WB	Signalized	0.757	C	0.714	C
15	Central Ave./Albertoni St./Artesia Blvd. EB	Signalized	0.76	C	0.737	C
16	Central Ave./Victoria St.	Signalized	0.541	A	0.63	B
17	Wilmington Ave./Artesia Blvd. WB	Signalized	0.696	B	0.703	C
18	Wilmington Ave./Artesia Blvd. EB	Signalized	0.685	B	0.71	C
19	Wilmington Ave./Victoria St.	Signalized	0.51	A	0.546	A
20	I-110 SB Off-Ramp/190th St.	Signalized	0.987	**E**	1.038	**F**
21	I-110 NB On-Ramp/190th St.	Signalized	0.437	A	0.673	B
22	Figueroa St./190th St./Victoria St.	Signalized	0.782	C	0.83	D
23	Broadway/Victoria St.	Signalized	0.554	A	0.704	C
24	Main St./Victoria St.	Signalized	0.606	B	0.81	D
25	Avalon Blvd./University Dr.	Signalized	0.434	A	0.626	B
26	Avalon Blvd./Del Amo Blvd.	Signalized	0.825	D	0.882	D
27	Avalon Blvd./I-405 NB Ramps	Signalized	0.476	A	0.467	A
28	Avalon Blvd./I-405 SB Ramps	Signalized	0.535	A	0.512	A
29	Central Ave./University Dr.	Signalized	0.549	A	0.477	A
30	Wilmington Ave./University Dr.	Signalized	0.471	A	0.52	A
31	Central Ave./Del Amo Blvd.	Signalized	0.703	C	0.673	B
32	Wilmington Ave./Del Amo Blvd.	Signalized	0.639	B	0.662	B
33	W. Artesia Blvd./Crenshaw Blvd.	Signalized	0.916	**E**	0.981	**E**
34	W. 190th St./S. Western Ave.	Signalized	0.818	D	0.759	C
35	W. Artesia Blvd./Vermont Ave.	Signalized	0.859	D	1.024	**F**
36	Alameda St./Compton Blvd.	Signalized	0.662	B	0.714	C
37	Alameda St./SR 91 EB Ramps	Signalized	0.567	A	0.766	C

*Intersection LOS was calculated using HCM 2000 Delay Method, because ICU cannot be calculated for TWSC intersections.

Source: TIS (February 2019)

Figures 3.9-9A, Existing Weekday AM Peak Hour LOS Intersections 1-32 and 38-42 and **3.9-9B**, Existing Weekday AM Peak Hour LOS Intersections 33-37, show the existing weekday AM peak hour LOS for the study area intersections. **Figures 3.9-9C**, Existing Weekday PM Peak Hour LOS Intersections 1-32 and 38-42 and **3.9-9D**, Existing Weekday

PM Peak Hour LOS Intersections 33-37, show the existing weekday PM peak hour LOS for the study area intersections.

Figure 3.9-9A
Existing Weekday AM Peak Hour LOS Intersections 1-32 and 38-42

Figure 3.9-9B
Existing Weekday AM Peak Hour LOS Intersections 33-37

Figure 3.9-9C
Existing Weekday PM Peak Hour LOS Intersections 1-32 and 38-42

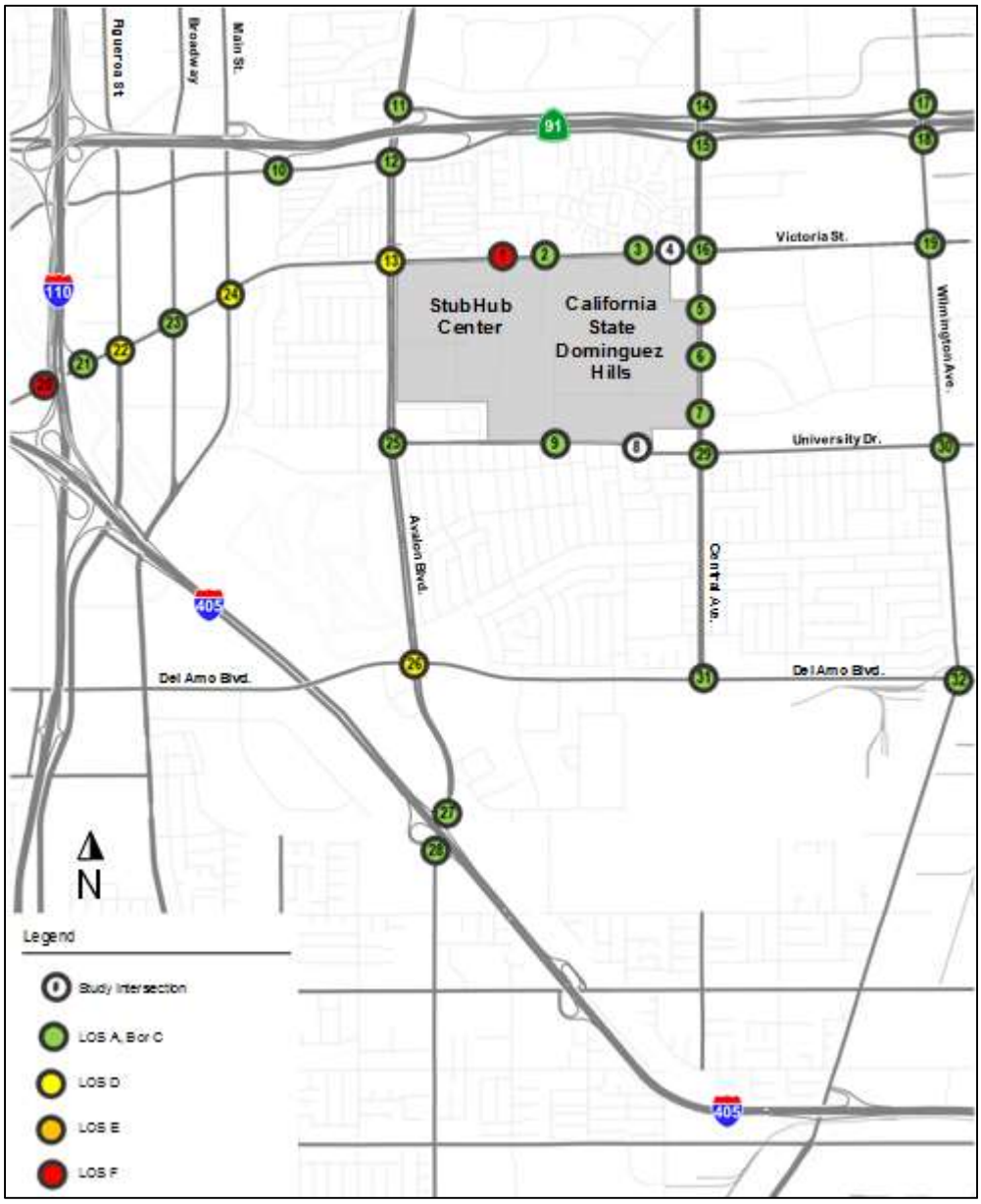


Figure 3.9-9D
Existing Weekday PM Peak Hour LOS Intersections 33-37

As shown in **Figures 3.9-9A-3.9-9D**, the following four intersections currently operate at either LOS E or LOS F and, therefore, do not meet the LOS D or better criteria under existing conditions:

- Intersection No. 1 — Victoria St./Drive D — LOS F in PM peak hour
- Intersection No. 20 — I-110 SB Off-Ramp/190th St. — LOS E in AM and LOS F in PM peak hour
- Intersection No. 33 — W. Artesia Blvd./Crenshaw Blvd. — LOS E in AM and PM peak hours
- Intersection No. 35 — W. Artesia Blvd./Vermont Ave. — LOS F in PM peak hour

Study Area Freeway Segments

This subsection describes existing weekday LOS for the study area freeway segments, including CMP locations, potentially impacted by project traffic.

The CMP is a state-mandated program enacted in 1990 to address urban congestion in certain communities. The CMP provides the analytical basis for transportation decisions through the State Transportation Improvement Program. Metro is the local CMP agency; and it has established a County-wide approach to implementing the CMP statutory requirements in Metro's 2010 CMP for Los Angeles County.

Table 3.9-6, Existing Weekday LOS for Study Area Freeway Locations, shows the existing weekday LOS for study area freeway locations. As shown, the following seven CMP locations do not meet the LOS D or better criteria under existing conditions:

- CMP Station No. 1033 — SR-91 East of Alameda St./Santa Fe Ave., Northbound (PM peak hour)
- CMP Station No. 1034 — SR-91 East of Cherry Ave., Northbound (PM peak hour)
- CMP Station No. 1046 — I-110 at Manchester Blvd., Northbound (AM and PM peak hours) and Southbound (AM and PM peak hour)
- CMP Station No. 1047 — I-110 at Slauson Ave., Northbound (AM and PM peak hours) and Southbound (AM and PM peak hour)
- CMP Station No. 1066 — I-405 at Santa Fe Ave., Northbound (AM and PM peak hour) and Southbound (PM peak hour)
- CMP Station No. 1067 — I-405 South of I-110 at the Carson Scales, Northbound (AM and PM peak hours) and Southbound (AM and PM peak hours)
- CMP Station No. 1068 — I-405 North of Inglewood Ave. at Compton Blvd., Northbound (AM and PM peak hour) and Southbound (PM peak hour)

Altogether, 85 freeway segments under existing conditions, including those that are not CMP monitoring locations, have a LOS worse than D. The locations in addition to the CMP monitoring locations are:

- SR-91 eastbound, Jct. Rte. 110 to Avalon Blvd., during the PM peak hour
- SR-91 eastbound, Avalon Blvd. to Central Ave., during the PM peak hour
- SR-91 eastbound, Central Ave. to Wilmington Ave., during the PM peak hour
- SR-91 eastbound, Wilmington Ave. to Alameda St., during the PM peak hour
- SR-91 eastbound, Alameda St. to Alameda St./Santa Fe Ave., during the PM peak hour
- SR-91 eastbound, Long Beach Blvd. to Jct. Rte. 710, during the PM peak hour
- SR-91 eastbound, Jct. Rte. 710 to Cherry Ave., during the PM peak hour
- SR-91 eastbound, Paramount Blvd. to Downey Ave., during the PM peak hour
- SR-91 eastbound, Jct. Rte. 19 to Clark Ave., during the PM peak hour
- I-110 northbound, Sepulveda Blvd. to Carson St., during the AM peak hour
- I-110 northbound, Carson St. to Torrance/Del Amo Blvd., during the AM peak hour
- I-110 northbound, Torrance/Del Amo Blvd. to Jct. Rte. 405, during both peak hours
- I-110 northbound, Jct. Rte. 405 to Jct. Rte. 91, during the AM peak hour
- I-110 northbound, Century Blvd. to Manchester Ave., during both peak hours

- I-110 northbound, Florence Ave. to Gage Ave., during both peak hours
- I-110 northbound, Slauson Ave. to 51st St., during both peak hours
- I-110 northbound, 51st St. to Vernon Ave., during both peak hours
- I-110 northbound, Vernon Ave. to Martin Luther King Jr. Blvd., during both peak hours
- I-405 northbound, Lakewood Blvd. to Cherry Ave., during both peak hours
- I-405 northbound, Cherry Ave. to Orange Ave., during both peak hours
- I-405 northbound, Orange Ave. to Atlantic Ave., during both peak hours
- I-405 northbound, Atlantic Ave. to Long Beach Blvd, during both peak hours
- I-405 northbound, Long Beach Blvd to Jct. Rte. 710, during the AM peak hour
- I-405 northbound, Alameda St. to Wilmington Ave., during both peak hours
- I-405 northbound, Wilmington Ave. to Carson St., during both peak hours
- I-405 northbound, Carson St. to Avalon Blvd., during both peak hours
- I-405 northbound, Avalon Blvd. to Jct. Rte. 110, during both peak hours
- I-405 northbound, Jct. Rte. 110 to Vermont Ave., during both peak hours
- I-405 northbound, Vermont Ave. to Normandie Ave., during the AM peak hour
- I-405 northbound, Normandie Ave. to Western Ave., during both peak hours
- I-405 northbound, Western Ave. to Crenshaw Blvd., during both peak hours
- I-405 northbound, Crenshaw Blvd. to Artesia Blvd., during both peak hours
- I-405 northbound, Artesia Blvd. to Hawthorne Blvd., during the AM peak hour
- I-405 northbound, Hawthorne Blvd. to Inglewood Ave., during both peak hours
- I-405 northbound, Inglewood Ave. to Rosecrans Ave., during both peak hours
- I-710 northbound, Jct. Rte. 91 to Alondra Blvd., during the PM peak hour
- I-710 northbound, Alondra Blvd. to Jct. Rte. 105, during the PM peak hour
- SR-91 westbound, Jct. Rte. 110 to Avalon Blvd., during both peak hours
- SR-91 westbound, Central Ave. to Wilmington Ave., during the AM peak hour
- SR-91 westbound, Wilmington Ave. to Alameda St., during the AM peak hour
- SR-91 westbound, Alameda St. to Alameda St./Santa Fe Ave., during the AM peak hour
- SR-91 westbound, Long Beach Blvd. to Jct. Rte. 710, during the AM peak hour
- SR-91 westbound, Jct. Rte. 710 to Cherry Ave., during the AM peak hour
- SR-91 westbound, Paramount Blvd. to Downey Ave., during the AM peak hour

- SR-91 westbound, Downey Ave. to Jct. Rte. 19, during the AM peak hour
- SR-91 westbound, Jct. Rte. 19 to Clark Ave., during both peak hours
- SR-91 westbound, Clark Ave. to Bellflower Blvd., during the AM peak hour
- SR-91 westbound, Bellflower Blvd. to Jct. Rte. 605, during the AM peak hour
- I-110 southbound, Sepulveda Blvd. to Carson St., during the PM peak hour
- I-110 southbound, Carson St. to Torrance/Del Amo Blvd., during both peak hours
- I-110 southbound, Torrance/Del Amo Blvd. to Jct. Rte. 405, during both peak hours
- I-110 southbound, Jct. Rte. 405 to Jct. Rte. 91, during both peak hours
- I-110 southbound, Rosecrans Ave. to El Segundo Blvd., during the AM peak hour
- I-110 southbound, Century Blvd. to Manchester Ave., during both peak hours
- I-110 southbound, Florence Ave. to Gage Ave., during both peak hours
- I-110 southbound, Slauson Ave. to 51st St., during the both peak hours
- I-110 southbound, 51st St. to Vernon Ave., during both peak hours
- I-110 southbound, Vernon Ave. to Martin Luther King Jr. Blvd., during both peak hours
- I-110 southbound, Martin Luther King Jr. Blvd. to Exposition Blvd., during both peak hours
- I-405 southbound, Lakewood Blvd. to Cherry Ave., during the PM peak hour
- I-405 southbound, Cherry Ave. to Orange Ave., during both peak hours
- I-405 southbound, Orange Ave. to Atlantic Ave., during both peak hours
- I-405 southbound, Atlantic Ave. to Long Beach Blvd, during the PM peak hour
- I-405 southbound, Long Beach Blvd to Jct. Rte. 710, during the PM peak hour
- I-405 southbound, Alameda St. to Wilmington Ave., during the PM peak hour
- I-405 southbound, Wilmington Ave. to Carson St., during both peak hours
- I-405 southbound, Carson St. to Avalon Blvd., during both peak hours
- I-405 southbound, Avalon Blvd. to Jct. Rte. 110, during both peak hours
- I-405 southbound, Jct. Rte. 110 to Vermont Ave., during both peak hours
- I-405 southbound, Vermont Ave. to Normandie Ave., during the PM peak hour
- I-405 southbound, Normandie Ave. to Western Ave., during both peak hours
- I-405 southbound, Western Ave. to Crenshaw Blvd., during both peak hours
- I-405 southbound, Crenshaw Blvd. to Artesia Blvd., during both peak hours
- I-405 southbound, Artesia Blvd. to Hawthorne Blvd., during both peak hours

- I-405 southbound, Hawthorne Blvd. to Inglewood Ave., during both peak hours
- I-405 southbound, Inglewood Ave. to Rosecrans Ave., during the PM peak hour

Table 3.9-6
Existing Weekday LOS for Study Area Freeway Locations

ID	CMP Station	Fwy Rte	Post Mile	Location	Northbound/Eastbound								Southbound/Westbound							
					AM Peak Hour				PM Peak Hour				AM Peak Hour				PM Peak Hour			
					Demand	Capacity	D/C	LOS	Demand	Capacity	D/C	LOS	Demand	Capacity	D/C	LOS	Demand	Capacity	D/C	LOS
91-1		91	6.344	Jct. Rte. 110 to Avalon Blvd.	6,770	12,000	0.56	C	13,900	12,000	1.16	F(0)	9,000	4,000	2.25	F(3)	6,120	4,000	1.53	F(3)
91-2		91	7.426	Avalon Blvd. to Central Ave.	6,940	10,000	0.69	C	14,240	10,000	1.42	F(2)	9,220	10,000	0.92	D	6,270	10,000	0.63	C
91-3		91	8.435	Central Ave. to Wilmington Ave.	7,040	10,000	0.70	C	14,440	10,000	1.44	F(2)	9,350	10,000	0.94	E	6,360	10,000	0.64	C
91-4		91	9.162	Wilmington Ave. to Alameda St.	7,300	10,000	0.73	C	14,990	10,000	1.50	F(3)	9,700	10,000	0.97	E	6,600	10,000	0.66	C
91-5		91	10.271	Alameda St. to Alameda St./Santa Fe Ave.	7,300	8,000	0.91	D	14,990	8,000	1.87	F(3)	9,700	8,000	1.21	F(0)	6,600	8,000	0.83	D
91-6	1033	91	10.41	Alameda St./Santa Fe Ave. to Long Beach Blvd.	7,600	12,000	0.63	C	15,600	12,000	1.30	F(1)	10,100	12,000	0.84	D	6,870	12,000	0.57	C
91-7		91	11.096	Long Beach Blvd. to Jct. Rte. 710	7,600	12,000	0.63	C	15,600	12,000	1.30	F(1)	10,100	10,000	1.01	F(0)	6,870	10,000	0.69	C
91-8		91	11.681	Jct. Rte. 710 to Cherry Ave.	7,780	10,000	0.78	D	11,110	10,000	1.11	F(0)	12,490	10,000	1.25	F(0)	8,790	10,000	0.88	D
91-9	1034	91	13.094	Cherry Ave. to Paramount Blvd.	7,910	10,000	0.79	D	11,300	10,000	1.13	F(0)	12,700	12,000	1.06	F(0)	8,940	12,000	0.75	C
91-10		91	13.594	Paramount Blvd. to Downey Ave.	7,810	10,000	0.78	D	11,150	10,000	1.12	F(0)	12,530	10,000	1.25	F(0)	8,820	10,000	0.88	D
91-11		91	14.103	Downey Ave. to Jct. Rte. 19	7,780	12,000	0.65	C	11,110	12,000	0.93	D	12,490	10,000	1.25	F(0)	8,790	10,000	0.88	D
91-12		91	14.618	Jct. Rte. 19 to Clark Ave.	7,200	10,000	0.72	C	10,280	10,000	1.03	F(0)	11,550	8,000	1.44	F(2)	8,130	8,000	1.02	F(0)
91-13		91	15.105	Clark Ave. to Bellflower Blvd.	7,590	12,000	0.63	C	10,840	12,000	0.90	D	12,190	10,000	1.22	F(0)	8,580	10,000	0.86	D
91-14		91	15.614	Bellflower Blvd. to Jct. Rte. 605	7,510	12,000	0.63	C	10,730	12,000	0.89	D	12,060	10,000	1.21	F(0)	8,490	10,000	0.85	D
110-1	1045	110	1.23	Channel St. to C St.	4,300	8,000	0.54	B	3,100	8,000	0.39	B	3,470	8,000	0.43	B	4,200	8,000	0.53	B
110-2		110	2.771	C St. to Anaheim St.	4,500	10,000	0.45	B	3,240	10,000	0.32	A	3,630	8,000	0.45	B	4,390	8,000	0.55	C
110-3		110	3.264	Anaheim St. to Jct. Rte. 1	4,890	10,000	0.49	B	3,520	10,000	0.35	A	3,940	10,000	0.39	B	4,770	10,000	0.48	B
110-4		110	4.061	Jct. Rte. 1 to Sepulveda Blvd.	6,840	8,000	0.86	D	4,930	8,000	0.62	C	5,520	8,000	0.69	C	6,680	8,000	0.84	D
110-5		110	5.451	Sepulveda Blvd. to Carson St.	8,890	8,000	1.11	F(0)	6,410	8,000	0.80	D	7,180	8,000	0.90	D	8,690	8,000	1.09	F(0)
110-6		110	7.016	Carson St. to Torrance/Del Amo Blvd.	10,260	8,000	1.28	F(1)	7,400	8,000	0.93	D	8,280	8,000	1.04	F(0)	10,020	8,000	1.25	F(0)
110-7		110	8.028	Torrance/Del Amo Blvd. to Jct. Rte. 405	10,850	8,000	1.36	F(2)	7,820	8,000	0.98	E	8,750	8,000	1.09	F(0)	10,600	8,000	1.33	F(1)
110-8		110	8.775	Jct. Rte. 405 to Jct. Rte. 91	13,490	12,000	1.12	F(0)	9,720	12,000	0.81	D	10,880	8,000	1.36	F(2)	13,170	8,000	1.65	F(3)
110-9		110	9.87	Jct. Rte. 91 to Redondo Beach Blvd.	8,870	12,000	0.74	C	9,020	12,000	0.75	C	9,700	12,000	0.81	D	9,350	12,000	0.78	D
110-10		110	11.239	Redondo Beach Blvd. to Rosecrans Ave.	9,230	11,000	0.84	D	9,390	11,000	0.85	D	10,090	11,000	0.92	D	9,730	11,000	0.88	D
110-11		110	11.891	Rosecrans Ave. to El Segundo Blvd.	9,630	11,000	0.88	D	9,790	11,000	0.89	D	10,530	11,000	0.96	E	10,140	11,000	0.92	D
110-12		110	12.898	El Segundo Blvd. to Jct. Rte. 105	9,810	11,000	0.89	D	9,980	11,000	0.91	D	10,720	13,000	0.82	D	10,330	13,000	0.79	D
110-13		110	13.82	Jct. Rte. 105 to Century Blvd.	11,000	14,000	0.79	D	11,190	14,000	0.80	D	12,020	14,000	0.86	D	11,590	14,000	0.83	D
110-14		110	14.967	Century Blvd. to Manchester Ave.	11,820	12,000	0.99	E	12,030	12,000	1.00	E	12,930	12,000	1.08	F(0)	12,460	12,000	1.04	F(0)
110-15	1046	110	15.976	Manchester Ave. to Florence Ave.	11,500	12,000	0.96	E	11,700	12,000	0.98	E	12,580	12,000	1.05	F(0)	12,120	12,000	1.01	F(0)
110-16		110	16.981	Florence Ave. to Gage Ave.	11,870	12,000	0.99	E	12,070	12,000	1.01	F(0)	12,730	12,000	1.06	F(0)	12,280	12,000	1.02	F(0)
110-17	1047	110	17.514	Gage Ave. to Slauson Ave.	11,800	12,000	0.98	E	12,000	12,000	1.00	E	12,660	12,000	1.06	F(0)	12,200	12,000	1.02	F(0)
110-18		110	17.98	Slauson Ave. to 51st St.	11,360	10,000	1.14	F(0)	11,550	10,000	1.16	F(0)	12,180	10,000	1.22	F(0)	11,740	10,000	1.17	F(0)
110-19		110	18.495	51st St. to Vernon Ave.	11,580	10,000	1.16	F(0)	11,780	10,000	1.18	F(0)	12,420	12,000	1.04	F(0)	11,970	12,000	1.00	E
110-20		110	18.998	Vernon Ave. to Martin Luther King Jr. Blvd.	11,580	12,000	0.97	E	11,780	12,000	0.98	E	12,420	12,000	1.04	F(0)	11,970	12,000	1.00	E
110-21		110	19.502	Martin Luther King Jr. Blvd. to Exposition Blvd.	10,480	12,000	0.87	D	10,650	12,000	0.89	D	11,240	10,000	1.12	F(0)	10,830	10,000	1.08	F(0)
110-22		110	19.996	Exposition Blvd. to Jct. Rte. 10	10,150	12,000	0.85	D	10,320	12,000	0.86	D	10,880	12,000	0.91	D	10,490	12,000	0.87	D
405-1		405	3.324	Lakewood Blvd. to Cherry Ave.	11,640	10,000	1.16	F(0)	9,890	10,000	0.99	E	8,680	10,000	0.87	D	10,850	10,000	1.09	F(0)
405-2		405	4.879	Cherry Ave. to Orange Ave.	12,210	10,000	1.22	F(0)	10,370	10,000	1.04	F(0)	9,100	8,000	1.14	F(0)	11,380	8,000	1.42	F(2)
405-3		405	5.388	Orange Ave. to Atlantic Ave.	12,740	8,000	1.59	F(3)	10,820	8,000	1.35	F(1)	9,500	8,000	1.19	F(0)	11,870	8,000	1.48	F(3)
405-4		405	6.076	Atlantic Ave. to Long Beach Blvd	12,530	8,000	1.57	F(3)	10,650	8,000	1.33	F(1)	9,350	12,000	0.78	D	11,680	12,000	0.97	E
405-5		405	6.34	Long Beach Blvd to Jct. Rte. 710	12,450	12,000	1.04	F(0)	10,580	12,000	0.88	D	9,290	10,000	0.93	D	11,610	10,000	1.16	F(0)
405-6	1066	405	7.596	Jct. Rte. 710 to Alameda St.	11,800	10,000	1.18	F(0)	10,020	10,000	1.00	E	8,800	10,000	0.88	D	11,000	10,000	1.10	F(0)
405-7		405	8.784	Alameda St. to Wilmington Ave.	11,390	10,000	1.14	F(0)	9,680	10,000	0.97	E	8,500	10,000	0.85	D	10,620	10,000	1.06	F(0)
405-8		405	9.556	Wilmington Ave. to Carson St.	10,600	8,000	1.33	F(1)	9,160	8,000	1.15	F(0)	9,090	8,000	1.14	F(0)	10,980	8,000	1.37	F(2)
405-9		405	10.541	Carson St. to Avalon Blvd.	10,440	8,000	1.31	F(1)	9,020	8,000	1.13	F(0)	8,950	8,000	1.12	F(0)	10,810	8,000	1.35	F(1)
405-10	1067	405	11.224	Avalon Blvd. to Jct. Rte. 110	11,200	10,000	1.12	F(0)	9,680	10,000	0.97	E	9,600	10,000	0.96	E	11,600	10,000	1.16	F(0)
405-11		405	12.97	Jct. Rte. 110 to Vermont Ave.	11,200	10,000	1.12	F(0)	9,730	10,000	0.97	E	8,350	8,000	1.04	F(0)	10,320	8,000	1.29	F(1)
405-12		405	13.28	Vermont Ave. to Normandie Ave.	11,680	12,000	0.97	E	10,140	12,000	0.85	D	8,710	10,000	0.87	D	10,750	10,000	1.08	F(0)
405-13		405	13.826	Normandie Ave. to Western Ave.	10,930	10,000	1.09	F(0)	9,490	10,000	0.95	E	8,150	8,000	1.02	F(0)	10,070	8,000	1.26	F(1)
405-14		405	14.398	Western Ave. to Crenshaw Blvd.	10,500	8,000	1.31	F(1)	9,110	8,000	1.14	F(0)	7,830	8,000	0.98	E	9,670	8,000	1.21	F(0)
405-15		405	15.447	Crenshaw Blvd. to Artesia Blvd.	10,260	8,000	1.28	F(1)	8,910	8,000	1.11	F(0)	7,650	8,000	0.96	E	9,450	8,000	1.18	F(0)
405-16		405	16.573	Artesia Blvd. to Hawthorne Blvd.	10,380	10,000	1.04	F(0)	9,010	10,000	0.90	D	7,740	8,000	0.97	E	9,560	8,000	1.20	F(0)
405-17		405	17.589	Hawthorne Blvd. to Inglewood Ave.	10,890	10,000	1.09	F(0)	9,450	10,000	0.95	E	8,120	8,000	1.02	F(0)	10,030	8,000	1.25	F(0)
405-18	1068	405	18.233	Inglewood Ave. to Rosecrans Ave.	11,400	10,000	1.14	F(0)	9,900	10,000	0.99	E	8,500	10,000	0.85	D	10,500	10,000	1.05	F(0)
710-1		710	12.97	Jct. Rte. 91 to Alondra Blvd.	10,580	12,000	0.88	D	16,390	12,000	1.37	F(2)	10,290	12,000	0.86	D	8,280	12,000	0.69	C
710-2		710	13.945	Alondra Blvd. to Jct. Rte. 105	10,940	12,000	0.91	D	16,940	12,000	1.41	F(2)	10,630	12,000	0.89	D	8,560	12,000	0.71	C

Note: D/C is demand-to-capacity ratio.

Existing Sunday Conditions

The StubHub Center, situated on the CSUDH campus, includes a stadium with existing seating for 27,000 spectators. The stadium is the home field for the Los Angeles Galaxy Major League Soccer (MLS) games, and currently provides a venue for the National Football League (NFL) Los Angeles Chargers Sunday games. The proposed project includes the addition of 3,000 seats to the existing 27,000-seat stadium to accommodate a total of 30,000 spectators at Sunday games.

The existing Sunday conditions at the study area intersections were determined using traffic counts collected on a Sunday in February 2017 during the peak pre-event period (12:00 PM to 2:00 PM) and peak post-event period (4:00 PM to 6:00 PM). Because a sporting event was not taking place on the Sunday the counts were taken, vehicle trips associated with a 27,000-seat event were added to these counts to obtain the Existing Sunday (27,000-Seat) traffic volumes.

Study Area Intersections

Table 3.9-7, Existing Sunday (27,000-Seat) LOS Study Area Intersections, summarizes the results of the Sunday intersection LOS analysis. As shown, all study area intersections are operating at LOS D or better under existing conditions.

Table 3.9-7
Existing Sunday (27,000-Seat) LOS Study Area Intersections

Study ID	Intersection Name	Control Type	Pre-Game Peak Hour		Post-Game Peak Hour	
			V/C Ratio	ICU LOS	V/C Ratio	ICU LOS
1	Victoria St./Drive D	TWSC	0.541	A	0.463	A
2	Victoria St./Tamcliff Ave.	Signalized	0.322	A	0.563	A
3	Victoria St./Birchknoll Dr.	Signalized	0.200	A	0.609	B
9	University Dr./Toro Center Dr.	TWSC	0.541	A	0.675	B
10	Albertoni St./SR 91 EB Ramps	Signalized	0.555	A	0.320	A
11	Avalon Blvd./SR 91 WB On-Ramp	Signalized	0.626	B	0.759	C
12	Avalon Blvd./Albertoni St.	Signalized	0.764	C	0.592	A
13	Avalon Blvd./Victoria St.	Signalized	0.676	B	0.543	A
14	Central Ave./Artesia Blvd. WB	Signalized	0.523	A	0.448	A
15	Central Ave./Albertoni St./Artesia Blvd. EB	Signalized	0.503	A	0.452	A
16	Central Ave./Victoria St.	Signalized	0.728	C	0.528	A
17	Wilmington Ave./Artesia Blvd. WB	Signalized	0.508	A	0.535	A
18	Wilmington Ave./Artesia Blvd. EB	Signalized	0.366	A	0.751	C
19	Wilmington Ave./Victoria St.	Signalized	0.505	A	0.585	A
22	Figueroa St./190th St./Victoria St.	Signalized	0.456	A	0.328	A
24	Main St./Victoria St.	Signalized	0.422	A	0.312	A
25	Avalon Blvd./University Dr.	Signalized	0.607	B	0.834	D
26	Avalon Blvd./Del Amo Blvd.	Signalized	0.703	C	0.750	C
27	Avalon Blvd./I-405 NB Ramps	Signalized	0.634	B	0.511	A
28	Avalon Blvd./I-405 SB Ramps	Signalized	0.577	A	0.456	A
29	Central Ave./University Dr.	Signalized	0.775	C	0.629	B
30	Wilmington Ave./University Dr.	Signalized	0.725	C	0.403	A
31	Central Ave./Del Amo Blvd.	Signalized	0.459	A	0.428	A
32	Wilmington Ave./Del Amo Blvd.	Signalized	0.502	A	0.483	A
38	Avalon Blvd./184th St.	Signalized	0.450	A	0.378	A
39	Avalon Blvd./182nd St.	TWSC	0.367	A	0.606	B
40	Victoria St./Drive C	TWSC	0.619	B	0.331	A
41	Victoria St./Rainsbury Ave.	TWSC	0.750	C	0.369	A
42	Avalon Blvd./Harbor Village/Colony Cove	Signalized	0.646	B	0.546	A

Source: TIS (February 2019)

Environmental Impacts

The campus development will occur incrementally over the Master Plan's 2035 planning horizon. Of the key components, the 3,000-seat increase in the existing StubHub Center stadium (from 27,000 seats to 30,000 seats) is anticipated to be completed in the near-term by 2019, and the portions of the Core Campus and University Village facilities are anticipated to be developed by interim year 2025. Student enrollment growth over the life of the Master Plan is anticipated to reach 20,000 FTE students by 2035. **Table 3.9-8**, Traffic Generating Project Components By Phase, summarizes the anticipated phasing of the key project components relative to existing conditions.

Proposed Design Elements/Project Design Features

Figure 3.9-10, 2018 Campus Master Plan Facilities Map, depicts the 344-acre campus under proposed project conditions, which is composed of three major areas: (1) the Core Campus with academic facilities, (2) the planned University Village, and (3) the StubHub Center stadium with a seating increase for 3,000 Sunday spectators.

The proposed 2018 Campus Master Plan will provide for new facilities, infrastructure, and features within these areas, including housing and mixed-use development that will assist in reducing vehicle trips to and from the campus:

Housing: Providing appropriate opportunities for students to live on campus is an important component of the 2018 Campus Master Plan. The Master Plan will provide for replacement of older student housing facilities and for new student residence halls and student apartments within both the Core Campus and the University Village, providing approximately 988 new additional student beds on campus.

The Master Plan also will provide for new housing with up to 2,150 apartment units within the University Village that will be made available for faculty, staff, graduate students, and the general public.

~~**Mixed Use**~~**Other Development:** In addition to housing, the University Village will include up to 721,000 square feet of campus business park facilities, and up to 96,000 square feet of retail uses serving the Village residents, faculty, students, and campus employees.

For the purposes of traffic analysis, the key changes to the campus that will be brought about by the project are summarized in **Table 3.9-8**, Traffic Generating Project Components by Phase.[2]

In addition, project design features drawn from the 2018 Campus Master Plan Guidelines were formulated in response to the Master Plan objectives and specific needs identified through a comprehensive Master Plan development process guided by a Master Plan Steering Committee representing faculty, administration, students, and staff, and by input from the campus community and stakeholders through a comprehensive public outreach process of community meetings. Relative to transportation and circulation, project design features to be developed as part of the project will address pedestrian, bicycle, transit, parking, and transportation demand management-related issues, including:

[2] Note that **Table 3.9-8**, Traffic Generating Project Components by Phase, shows changes in the number of students but not in the floor space of academic buildings. That is because when a student drives to campus and enters an academic building the trip can be attributed to either the student or to the building, but not both. Attributing it to both would result in double-counting of the trip. Traffic studies for universities have found that attributing traffic to students rather than buildings is a more reliable indicator of future trips since the student's trip to the campus is not a function of how many buildings a student will enter or how much floor space they will use.

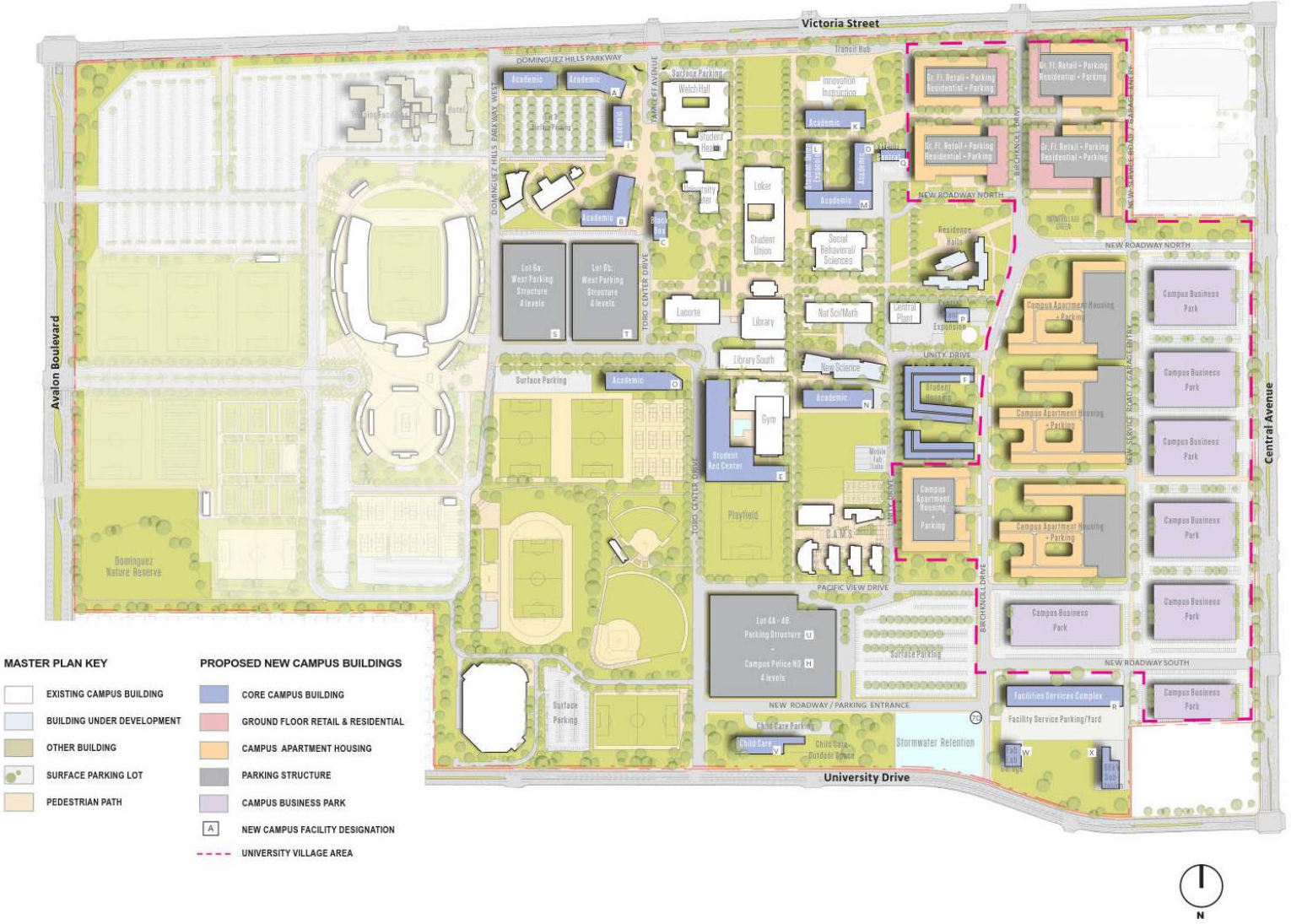
Core Campus: The Core Campus comprises the central portion of the campus, extending from Victoria Street to University Avenue. The Master Plan provides for the best use of the existing facilities and for new, appropriately situated facilities and features, including:

- Parking facilities to accommodate 20,000 FTEs, including reconfigured surface lots and new parking structures; and,
- Reconfigured north campus entry at Tamcliff Drive and Victoria Street (including the transit sub); a reinforced campus entry at Toro Center Drive and University Avenue; and reconfigured vehicle access to parking facilities.

University Village: The University Village comprises the eastern campus area, extending from Victoria Street to south of Glenn Curtiss Drive. As illustrated in **Figure 3.9-10**, 2018 Campus Master Plan Facilities Map, the 2018 Campus Master Plan will provide for ~~a~~ new ~~mixed-use~~ campus development that will include:

- Retail uses to support both the Core Campus and the University Village, including parking;
- ~~Market-rate~~Campus apartment housing and parking, including housing for faculty and staff and apartment-style housing for students;
- University Avenue, and reconfigured vehicle access from Central Avenue via Charles Willard Drive and Glenn Curtiss Drive; and
- Vehicle circulation improvements, including an extension of Birchknoll Drive from Victoria Street to University Drive.

Figure 3.9-10
~~2018~~ Campus Master Plan Facilities Map (Updated)



StubHub Center: The existing StubHub Center is located in the western-most campus area, east of Avalon Boulevard. The Center's facilities include an existing stadium with seating for 27,000 spectators. The 2018 Campus Master Plan includes the addition of 3,000 seats to the StubHub Center stadium, increasing its seating capacity to 30,000 spectators. As previously noted, the added seating would increase capacity for Sunday afternoon events only. Sunday events generally have a start time between 1:00 and 2:00 PM and a typical duration of three hours. When 30,000-seat events are taking place, no other activities that might attract additional spectators to the site (tennis or bicycling events, for example) would occur at times that would overlap with the larger 30,000-seat events. The 30,000-seat events at StubHub Center proposed as part of the project would involve off-site parking at several locations (see **Figure 3.9-11**, Off-Site Parking Lot Locations for 30,000 Seat Events) and temporary traffic controls both before and after the events (see **Figure 3.9-12**, Temporary Traffic Controls (Pre-Game) and **Figure 3.9-13**, Temporary Traffic Controls (Post-Game)).

Figure 3.9-11
Off-Site Parking Lot Locations for 30,000 Seat Events

Figure 3.9-12
Temporary Traffic Controls (Pre-Game)

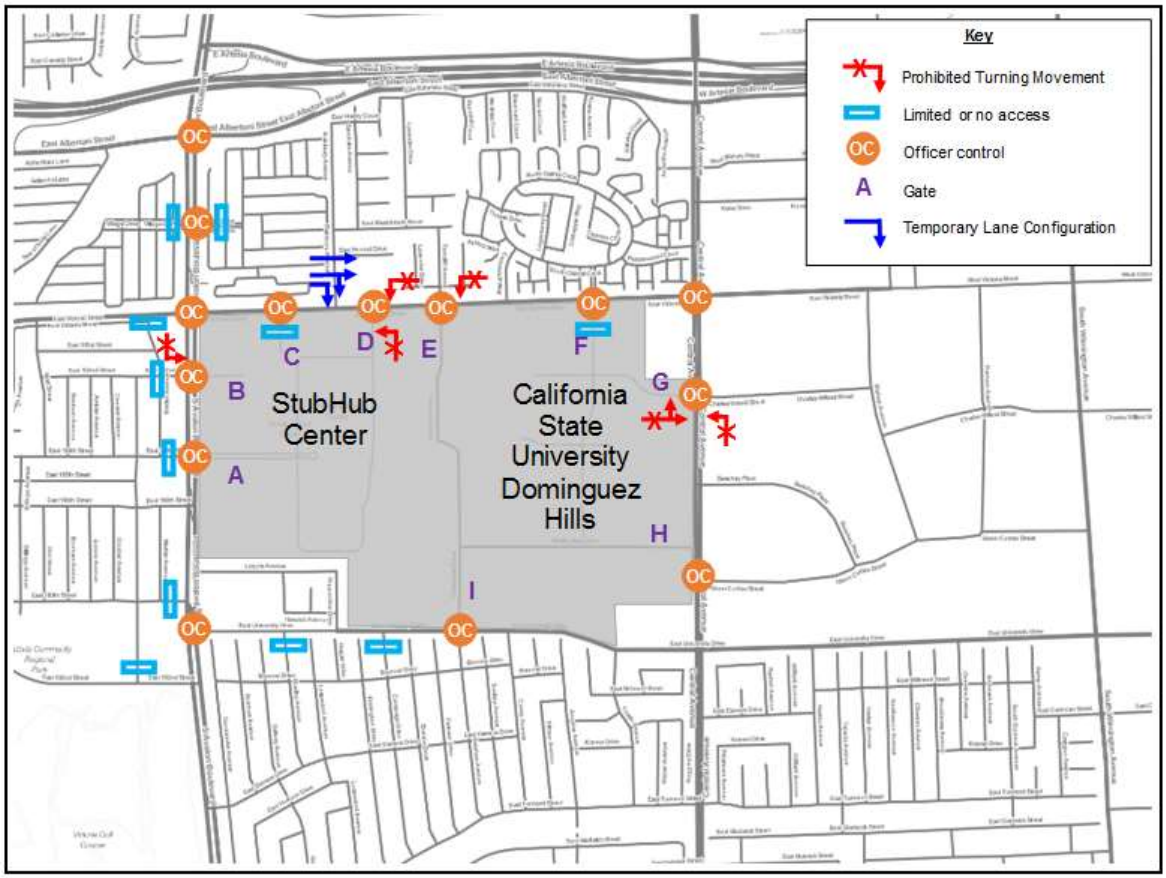
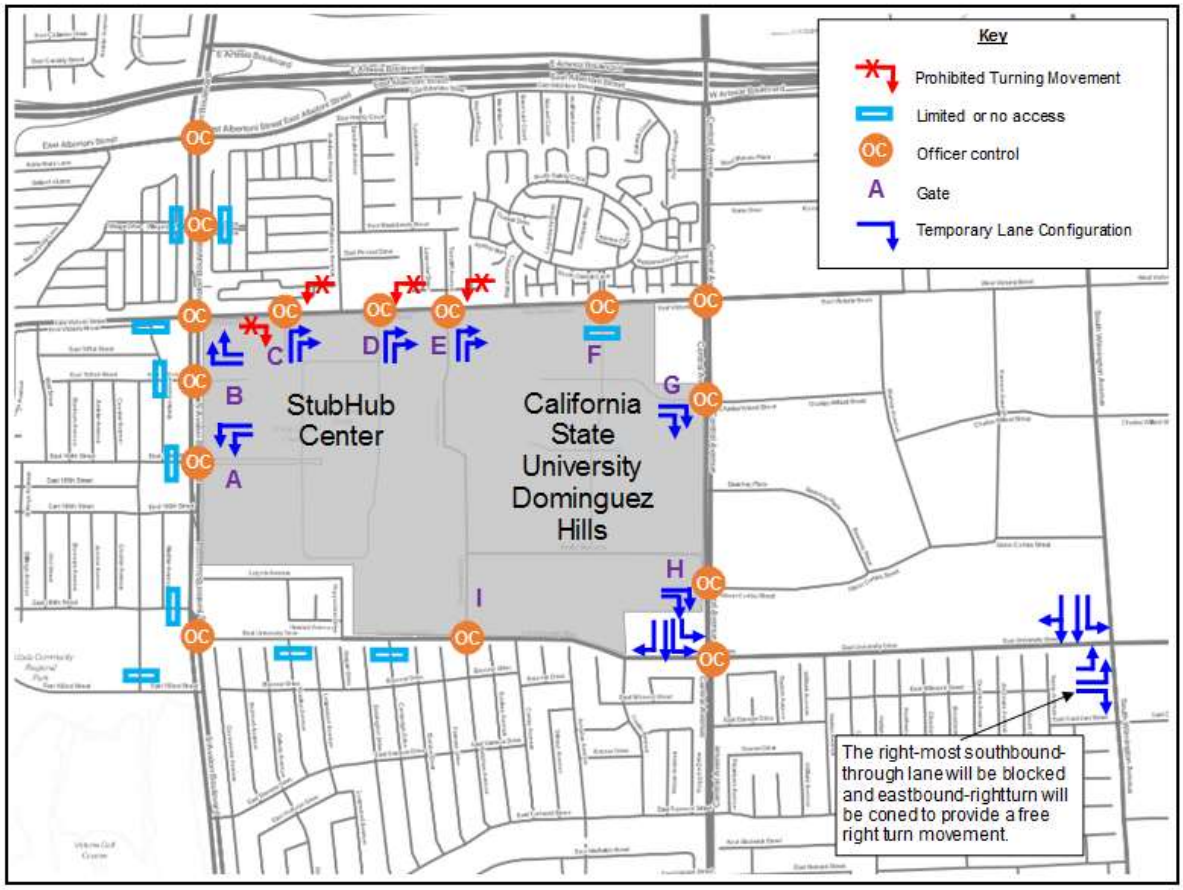


Figure 3.9-13
Temporary Traffic Controls (Post-Game)



For a complete list of project design features, please see DEIR Section 2.0, Project Description.

For the purposes of the traffic analysis, the key changes to the campus trip generation that will be brought about by the project are summarized in **Table 3.9-8**, Traffic Generating Project Components By Phase.

Table 3.9-8
Traffic Generating Project Components By Phase

Trip Generator	Units	Existing	Master Plan Near-Term (2019)		Master Plan Interim Year (2025)		Master Plan Horizon Year (2035)	
			Units	Change from Existing	Units	Change from Existing	Units	Change from Existing
CSUDH Students								
On-Campus (Resident) Students	Students	649	649	0	649	0	1,588	939
Online only Students	Students	600	637	37	717	117	1,079	479
Off-Campus (Non-Resident) Students	Students	12,822	13,647	825	15,450	2,628	22,645	9,823
Total Students (head count)	Students	**14,071**	**14,933**	862	**16,816**	2,745	**25,312**	11,241
Total Students (FTEs)	Students	**11,118**	**11,799**	681	**13,287**	2,169	**20,000**	8,882
Non-Students								
Faculty/Staff	Persons	1,052	1,116	64	1,257	205	1,892	840
High School Students	Students	676	676	0	676	0	676	0
Child/Infant Care Center Students	Persons	92	98	6	110	18	184	92
Market Rate Housing	Dwelling Units	0	0	0	1,063	1,063	2,149	2,149
Retail	sq. ft.	0	0	0	96,085	96,085	96,085	96,085
Business Park	sq. ft.	0	0	0	720,918	720,918	720,918	720,918
StubHub Main Stadium	Seats	27,000	30,000	3,000	30,000	3,000	30,000	3,000

Source: TIS (February 2019)

Significance Thresholds

In addition to the significance criteria previously provided in the Environmental Setting section, the analysis presented here also is consistent with the CEQA Guidelines relative to transportation impacts. Specifically, based on Appendix G of the CEQA Guidelines and other relevant criteria, the determination of whether the proposed project would have a potentially significant impact related to transportation is based on the following criteria:

Threshold 1: Conflict with a program, plan, ordinance or policy addressing the circulation system, including transit, roadways, bicycle lanes and pedestrian facilities paths?

Threshold 2: Substantially increase hazards due to a geometric design feature (e.g., sharp curves or dangerous intersections) or incompatible uses (e.g, farm equipment)?

Threshold 3: Result in inadequate emergency access?

Impact Analysis

Circulation

Would the proposed project conflict with a program, plan, ordinance or policy addressing the circulation system, including transit, roadways, bicycle lanes and pedestrian facilities paths?

Project Trip Generation

Two baseline years were analyzed to identify the project's significant traffic and circulation impacts: Interim Year 2025 and Buildout Year 2035. Based on the trip generation analyses, during weekdays, the project will generate 4,366 AM and 4,564 PM peak hour trips under the Interim Year 2025 Conditions, and 6,116 AM and 6,544 PM peak hour trips under the Buildout Year 2035 Conditions.

The weekday trip generation for the 2025 and 2035 scenarios is summarized in **Table 3.9-9**, Interim Year 2025 Trip Generation, and **Table 3.9-10**, Buildout Year 2035 Trip Generation.

In addition to the Interim Year and Buildout Year scenarios, a Near-Term 2019 Sunday scenario also is presented that analyzes the potential impacts associated with a 3,000-seat increase at the existing StubHub Center stadium, the only component of the proposed project planned to be completed by 2019. **Table 3.9-11**, Sunday Shuttle Bus Trip Generation for Additional 3,000-Seat Event, and **Table 3.9-12**, Sunday Peak Hour Car Trip Generation for Additional 3,000-Seat Event, illustrates the trip generation.

Finally, Existing plus Project (Buildout) Weekday and Sunday scenarios also are presented. These scenarios are hypothetical as they assume immediate implementation of the additional 3,000 StuHub seats, and immediate buildout of the full project, which is not expected to occur for more than 15 years. As a result, these scenarios potentially overstate impacts in that they do not take into account potential infrastructure improvements that would be made over the years and would add additional capacity, and they also potentially understate impacts in that they do not take into account future growth in cumulative traffic, thereby overstating the amount of available road capacity. Therefore, because the results of these analysis scenario are potentially misleading to the decisionmaker, the analyses are presented for information purposes only; significance determinations and resulting mitigation measures are based on the 2019 Sunday, and 2025 and 2035 scenarios.

Table 3.9-9
Interim Year 2025 Trip Generation

Land Use (ITE Code)	Size	Unit	AM Peak Hour			PM Peak Hour		
			Rate	Trip		Rate	Trip	
				In	Out		In	Out
On-Campus Student	649	Students	0.033	12	10	0.093	28	32
Off-Campus Student	15,450	Students	0.151	1,744	582	0.161	1,044	1,448
Faculty and Staff	1,257	Emplyee	0.067	85	0	0.013	0	17
High School (530)	676	Students	0.430	198	93	0.130	41	47
Child Care Centers	110	Students	0.962	71	35	0.962	35	71
Subtotal for Campus Trips				**2,110**	**720**		**1,148**	**1,615**
Market Rate Housing (220)	1,063	DU	0.51	108	434	0.62	428	231
Retail (820)	96,085	sq. ft.	1.58	94	58	6.07	280	303
Business Park (770)	720,918	sq. ft.	1.34	821	145	1.21	227	646
Subtotal				1,023	637		935	1,180
Internal Capture %				6%	10%		17%	13%
Internal Trips				62	62		157	157
University Village Net Total				**961**	**575**		**778**	**1,023**
Weekday Peak Hour Total				**3,071**	**1,295**		**1,926**	**2,638**

Source: TIS (February 2019)

Table 3.9-10
Buildout Year 2035 Trip Generation

Land Use (ITE Code)	Size	Unit	AM Peak Hour			PM Peak Hour		
			Rate	Trip		Rate	Trip	
				In	Out		In	Out
On-Campus Student	1,588	Students	0.033	28	24	0.093	69	78
Off-Campus Student	22,645	Students	0.151	2,556	854	0.161	1,530	2,123
Faculty and Staff	1,892	Emplyee	0.067	128	0	0.013	0	25
High School (530)	676	Students	0.430	198	93	0.130	41	47
Child Care Centers	184	Students	0.962	119	58	0.962	58	119
Subtotal for Campus Trips				**3,029**	**1,029**		**1,698**	**2,392**
Market Rate Housing (220)	2,149	DU	0.51	219	877	0.62	866	466
Retail (820)	96,085	sq. ft.	1.58	94	58	6.07	280	303
Business Park (770)	720,918	sq. ft.	1.34	821	145	1.21	227	646
Subtotal				1,134	1,080		1,373	1,415
Internal Capture %				7%	7%		12%	12%
Internal Trips				78	78		167	167
University Village Net Total				**1,056**	**1,002**		**1,206**	**1,248**
Weekday Peak Hour Total				**4,085**	**2,031**		**2,904**	**3,640**

Source: TIS (February 2019)

As noted above, to account for the 3,000-seat increase at the existing StubHub Center stadium, trip generation analyses were conducted for Sunday — with event conditions. Under the worst-case scenario, project-related total trip generation would include vehicles from spectators, stadium employees, team and media, shuttle buses, and trips from University Village. The Sunday trip generation is summarized in **Table 3.9-11**, Sunday Shuttle Bus Trip Generation a 30,000-Seat Event and **Table 3.9-12**, Sunday Peak Hour Car Trip Generation for a 30,000-Seat Event.

Table 3.9-11
Sunday Shuttle Bus Trip Generation for a 30,000-Seat Event

Spectator Park and Ride Lot	Parking Spaces	Spectators	Shuttle Buses Capacity	Shuttle Buses Trips
	(A)	(B)=(A)*3	(C)	(D)=(B)/(C)
Harbor Gateway*	900	2,700	100 seats @ 80% occupancy = 80	34
Herbalife Building	600	1,800	76 seats @ 80% occupancy = 60	30
Del Amo Station	200	600	76 seats @ 80% occupancy = 60	10
Willow Station	400	1,200	76 seats @ 80% occupancy = 60	20
Total	2,100	6,300		94

* Articulated buses will serve this location. Other locations will be served by regular buses

Source: TIS (February 2019)

Table 3.9-12
Sunday Peak Hour Car Trip Generation for a 30,000-Seat Event

Land Use (ITE Code)	Size	Unit	Pre-Game			Post-Game		
			Rate	Trip		Rate	Trip	
				In	Out		In	Out
On-Campus Student (Incremental)	**939**	**Students**	**0.033**	**17**	**14**	**0.093**	**41**	**46**
Market Rate Housing (220)	2,149	DU	0.51	548	548		548	548
Retail (820)	96,085	sq. ft.	3.12	150	150		150	150
Business Park (710)	720,918	sq. ft.	0.16	67	48		48	67
Subtotal				765	746		746	765
Internal Capture %				4%	5%		12%	12%
Internal Trips				34	34		92	92
University Village Net Total				**731**	**712**		**654**	**673**
SubHub Center (30,000-Seat)				**5,144**	**119**		**119**	**5,936**
Weekend Total				**5,892**	**845**		**814**	**6,655**

Source: TIS (February 2019)

Existing Weekday Plus Project Conditions

Forecasting Existing Plus Project Weekday Traffic

Traffic volumes for the Existing Plus Project condition were developed by adding the trips generated by full buildout of the Master Plan to the existing traffic volumes. The resulting Existing Plus Project traffic volumes are shown in TIS, Maps A-G.

Existing Plus Project Intersection Level of Service

Table 3.9-13, Existing Plus Project Weekday Intersection Level of Service, shows the Existing Plus Project weekday LOS. The LOS also is shown on maps in the TIS, in Exhibit 50 for the AM peak hour condition, and Exhibit 51 for the PM peak hour condition. **Table 3.9-14**, Existing Plus Project Significant Intersection Impacts, shows the significant intersection impacts that would result under this hypothetical scenario. As shown, under this scenario, the proposed Project would result in significant direct impacts at the following 14 intersections:

- Intersection #1, Victoria St./Drive D, during both peak hours
- Intersection #3, Victoria St./Birchknoll Dr., during PM peak hour
- Intersection #5, Central Ave./Charles Willard St., during both peak hours
- Intersection #6, Central Ave./Project Driveway/Beachey Pl., during both peak hours
- Intersection #9, University Dr./Toro Center Dr., during both peak hours
- Intersection #13, Avalon Blvd./Victoria St., during PM peak hour

- Intersection #14, Central Ave./Artesia Blvd. WB, during both peak hours
- Intersection #15, Central Ave./Albertoni St./Artesia Blvd. EB, during both peak hours
- Intersection #16, Central Ave./Victoria St., during PM peak hour
- Intersection #20, I-110 SB Off-Ramp/190th St., during both peak hours
- Intersection #22, Figueroa St./190th St./Victoria St., during both peak hours
- Intersection #24, Main St./Victoria St., during PM peak hour
- Intersection #26, Avalon Blvd./Del Amo Blvd., during PM peak hour
- Intersection #29, Central Ave./University Dr., during both peak hours

Table 3.9-13
Existing Plus Project Weekday Intersection Level of Service

Study ID	Intersection Name	Control Type	AM Peak Hour		PM Peak Hour	
			V/C Ratio or Delay	LOS (ICU or HCM)	V/C Ratio or Delay	LOS (ICU or HCM)
1	Victoria St./Drive D	TWSC	>180	**F**	>180	**F**
2	Victoria St./Tamcliff Ave.	Signalized	0.566	A	0.759	C
3	Victoria St./Birchknoll Dr.	Signalized	0.659	B	0.956	**E**
4	Victoria St./Project Service Rd.	TWSC	12	B	12.1	B
5	Central Ave./Charles Willard St.	TWSC	>180	**F**	>180	**F**
6	Central Ave./Beachey Pl.	TWSC	>180	**F**	>180	**F**
7	Central Ave./Glenn Curtiss St.	Signalized	0.834	D	0.822	D
8	University Dr./Birchknoll Dr. Ext.	TWSC	15.8	C	12.4	B
9	University Dr./Toro Center Dr.	TWSC	>180	**F**	>180	**F**
10	Albertoni St./SR 91 EB Ramps	Signalized	0.696	B	0.881	D
11	Avalon Blvd./SR 91 WB On-Ramp	Signalized	0.503	A	0.507	A
12	Avalon Blvd./Albertoni St.	Signalized	0.643	B	0.85	D
13	Avalon Blvd./Victoria St.	Signalized	0.856	D	1.118	**F**
14	Central Ave./Artesia Blvd. WB	Signalized	1.009	**F**	0.968	**E**
15	Central Ave./Albertoni St./Artesia Blvd. EB	Signalized	1.153	**F**	0.991	**E**
16	Central Ave./Victoria St.	Signalized	1.113	**F**	0.903	**E**
17	Wilmington Ave./Artesia Blvd. WB	Signalized	0.704	C	0.708	C
18	Wilmington Ave./Artesia Blvd. EB	Signalized	0.694	B	0.718	C
19	Wilmington Ave./Victoria St.	Signalized	0.514	A	0.549	A
20	I-110 SB Off-Ramp/190th St.	Signalized	1.144	**F**	1.191	**F**
21	I-110 NB On-Ramp/190th St.	Signalized	0.591	A	0.825	D
22	Figueroa St./190th St./Victoria St.	Signalized	0.909	**E**	1.068	**F**
23	Broadway/Victoria St.	Signalized	0.719	C	0.872	D
24	Main St./Victoria St.	Signalized	0.775	C	1.031	**F**
25	Avalon Blvd./University Dr.	Signalized	0.517	A	0.758	C
26	Avalon Blvd./Del Amo Blvd.	Signalized	0.873	D	0.958	**E**
27	Avalon Blvd./I-405 NB Ramps	Signalized	0.484	A	0.485	A
28	Avalon Blvd./I-405 SB Ramps	Signalized	0.542	A	0.511	A
29	Central Ave./University Dr.	Signalized	1.275	**F**	1.122	**F**
30	Wilmington Ave./University Dr.	Signalized	0.654	B	0.733	C
31	Central Ave./Del Amo Blvd.	Signalized	0.824	D	0.748	C
32	Wilmington Ave./Del Amo Blvd.	Signalized	0.687	B	0.717	C
33	W. Artesia Blvd./Crenshaw Blvd.	Signalized	0.928	**E**	0.997	**E**
34	W. 190th St./S. Western Ave.	Signalized	0.825	D	0.824	D
35	W. Artesia Blvd./Vermont Ave.	Signalized	0.864	D	1.035	**F**
36	Alameda St./Compton Blvd.	Signalized	0.675	B	0.722	C
37	Alameda St./SR 91 EB Ramps	Signalized	0.572	A	0.769	C

*Intersection LOS was calculated using HCM 2000 Delay Method, because ICU cannot be calculated for TWSC intersections.

Table 3.9-14
Existing Plus Project Significant Intersection Impacts

Study ID	Intersection Name	Control Type	Existing Scenarios					
			AM Peak Hour			PM Peak Hour		
			No Project LOS	Plus Project LOS	Project Has Significant Impact?	No Project LOS	Plus Project LOS	Project Has Significant Impact?
1	Victoria St./Drive D	TWSC	C	**F**	**Yes**	**F**	**F**	**Yes**
2	Victoria St./Tamcliff Ave.	Signalized	A	A	No	A	C	No
3	Victoria St./Birchknoll Dr.	Signalized	A	B	No	B	**E**	**Yes**
4	Victoria St./Project Service Rd.	TWSC	N/A	B	No	N/A	B	No
5	Central Ave./Charles Willard St.	TWSC	C	**F**	**Yes**	C	**F**	**Yes**
6	Central Ave./Beachey Pl.	TWSC	C	**F**	**Yes**	C	**F**	**Yes**
7	Central Ave./Glenn Curtiss St.	Signalized	A	D	No	A	D	No
8	University Dr./Birchknoll Dr. Ext.	N/A	N/A	C	No	N/A	B	No
9	University Dr./Toro Center Dr.	TWSC	B	**F**	**Yes**	B	**F**	**Yes**
10	Albertoni St./SR 91 EB Ramps	Signalized	A	B	No	C	D	No
11	Avalon Blvd./SR 91 WB On-Ramp	Signalized	A	A	No	A	A	No
12	Avalon Blvd./Albertoni St.	Signalized	A	B	No	C	D	No
13	Avalon Blvd./Victoria St.	Signalized	A	D	No	D	**F**	**Yes**
14	Central Ave./Artesia Blvd. WB	Signalized	C	**F**	**Yes**	C	**E**	**Yes**
15	Central Ave./Albertoni St./Artesia Blvd. EB	Signalized	C	**F**	**Yes**	C	**E**	**Yes**
16	Central Ave./Victoria St.	Signalized	A	**F**	**Yes**	B	**E**	**Yes**
17	Wilmington Ave./Artesia Blvd. WB	Signalized	B	C	No	C	C	No
18	Wilmington Ave./Artesia Blvd. EB	Signalized	B	B	No	C	C	No
19	Wilmington Ave./Victoria St.	Signalized	A	A	No	A	A	No
20	I-110 SB Off-Ramp/190th St.	Signalized	**E**	**F**	**Yes**	**F**	**F**	**Yes**
21	I-110 NB On-Ramp/190th St.	Signalized	A	A	No	B	D	No
22	Figueroa St./190th St./Victoria St.	Signalized	C	**E**	**Yes**	D	**F**	**Yes**
23	Broadway/Victoria St.	Signalized	A	C	No	C	D	No
24	Main St./Victoria St.	Signalized	B	C	No	D	**F**	**Yes**
25	Avalon Blvd./University Dr.	Signalized	A	A	No	B	C	No
26	Avalon Blvd./Del Amo Blvd.	Signalized	D	D	No	D	**E**	**Yes**
27	Avalon Blvd./I-405 NB Ramps	Signalized	A	A	No	A	A	No
28	Avalon Blvd./I-405 SB Ramps	Signalized	A	A	No	A	A	No
29	Central Ave./University Dr.	Signalized	A	**F**	**Yes**	A	**F**	**Yes**
30	Wilmington Ave./University Dr.	Signalized	A	B	No	A	C	No
31	Central Ave./Del Amo Blvd.	Signalized	C	D	No	B	C	No
32	Wilmington Ave./Del Amo Blvd.	Signalized	B	B	No	B	C	No
33	W. Artesia Blvd./Crenshaw Blvd.	Signalized	**E**	**E**	No	**E**	**E**	No
34	W. 190th St./S. Western Ave.	Signalized	D	D	No	C	D	No
35	W. Artesia Blvd./Vermont Ave.	Signalized	D	D	No	**F**	**F**	No
36	Alameda St./Compton Blvd.	Signalized	B	B	No	C	C	No
37	Alameda St./SR 91 EB Ramps	Signalized	A	A	No	C	C	No

Existing Plus Project Freeway Level of Service

The LOS for the study area freeway segments under Existing Plus Project conditions are shown in **Table 3.9-15**, Existing Plus Project Freeway LOS. As shown on the table, the analysis addressed potential impacts to SR-91, I-110, I-710, and I-405, including applicable CMP locations. **Table 3.9-16**, Existing Plus Project Freeway Significant Impacts, shows that the Project would have significant direct impacts at the following CMP locations:

- CMP Station #1033, SR 91 East of Alameda St./Santa Fe Ave. eastbound during the PM peak hour
- CMP Station #1034, SR 91 East of Cherry Ave., eastbound during the PM peak hour and westbound, during AM peak hour
- CMP Station #1046, I-110 at Manchester Blvd., northbound during the PM peak hour and southbound in the AM and PM peak hours
- CMP Station #1047, I-110 at Slauson Ave., northbound during the PM peak hour and southbound during the AM and PM peak hours
- CMP Station #1066, I-405 at Santa Fe Ave., northbound during the AM and PM peak hour and southbound during the PM peak hour
- CMP Station #1067, I-405 at the Carson Scales, northbound during AM and PM peak hours and southbound during the PM peak hour
- CMP Station # 1068, I-405 North of Inglewood Avenue at Compton Blvd., northbound during the PM peak hour

In addition, under the Existing plus Project scenario, the proposed project would result in significant impacts at the following freeway segments not designated as CMP monitoring stations:

- SR-91 eastbound, Jct. Rte. 110 to Avalon Blvd., during the PM peak hour
- SR-91 eastbound, Avalon Blvd. to Central Ave., during the PM peak hour
- SR-91 eastbound, Central Ave. to Wilmington Ave., during the PM peak hour
- SR-91 eastbound, Wilmington Ave. to Alameda St., during the PM peak hour
- SR-91 eastbound, Alameda St. to Alameda St./Santa Fe Ave., during both peak hours
- SR-91 eastbound, Alameda St./Santa Fe Ave. to Long Beach Blvd., during the PM peak hour
- SR-91 eastbound, Long Beach Blvd. to Jct. Rte. 710, during the PM peak hour
- SR-91 eastbound, Jct. Rte. 710 to Cherry Ave., during the PM peak hour
- SR-91 eastbound, Cherry Ave. to Paramount Blvd., during the PM peak hour
- SR-91 eastbound, Jct. Rte. 19 to Clark Ave., during the PM peak hour
- I-110 northbound, Sepulveda Blvd. to Carson St., during the AM peak hour

- I-110 northbound, Carson St. to Torrance/Del Amo Blvd., during both peak hours
- I-110 northbound, Torrance/Del Amo Blvd. to Jct. Rte. 405, during both peak hours
- I-110 northbound, Jct. Rte. 405 to Jct. Rte. 91, during the AM peak hour
- I-110 northbound, El Segundo Blvd. to Jct. Rte. 105, during the PM peak hour
- I-110 northbound, Century Blvd. to Manchester Ave., during the PM peak hour
- I-110 northbound, Manchester Ave. to Florence Ave., during the PM peak hour
- I-110 northbound, Florence Ave. to Gage Ave., during the PM peak hour
- I-110 northbound, Gage Ave. to Slauson Ave., during the PM peak hour
- I-110 northbound, Slauson Ave. to 51st St., during the PM peak hour
- I-110 northbound, 51st St. to Vernon Ave., during the PM peak hour
- I-110 northbound, Vernon Ave. to Martin Luther King Jr. Blvd., during the PM peak hour
- I-405 northbound, Lakewood Blvd. to Cherry Ave., during the AM peak hour
- I-405 northbound, Cherry Ave. to Orange Ave., during the AM peak hour
- I-405 northbound, Orange Ave. to Atlantic Ave., during both peak hours
- I-405 northbound, Atlantic Ave. to Long Beach Blvd, during both peak hours
- I-405 northbound, Jct. Rte. 710 to Alameda St., during both peak hours
- I-405 northbound, Alameda St. to Wilmington Ave., during both peak hours
- I-405 northbound, Wilmington Ave. to Carson St., during both peak hours
- I-405 northbound, Carson St. to Avalon Blvd., during both peak hours
- I-405 northbound, Avalon Blvd. to Jct. Rte. 110, during both peak hours
- I-405 northbound, Jct. Rte. 110 to Vermont Ave., during the PM peak hour
- I-405 northbound, Vermont Ave. to Normandie Ave., during the AM peak hour
- I-405 northbound, Normandie Ave. to Western Ave., during both peak hours
- I-405 northbound, Western Ave. to Crenshaw Blvd., during both peak hours
- I-405 northbound, Crenshaw Blvd. to Artesia Blvd., during both peak hours
- I-405 northbound, Inglewood Ave. to Rosecrans Ave., during the PM peak hour
- SR-91 westbound, Jct. Rte. 110 to Avalon Blvd., during both peak hours
- SR-91 westbound, Avalon Blvd. to Central Ave., during the AM peak hour
- SR-91 westbound, Central Ave. to Wilmington Ave., during the AM peak hour
- SR-91 westbound, Wilmington Ave. to Alameda St., during the AM peak hour
- SR-91 westbound, Alameda St. to Alameda St./Santa Fe Ave., during the AM peak hour

- SR-91 westbound, Long Beach Blvd. to Jct. Rte. 710, during the AM peak hour
- SR-91 westbound, Jct. Rte. 710 to Cherry Ave., during the AM peak hour
- SR-91 westbound, Cherry Ave. to Paramount Blvd., during the AM peak hour
- SR-91 westbound, Paramount Blvd. to Downey Ave., during the AM peak hour
- SR-91 westbound, Downey Ave. to Jct. Rte. 19, during the AM peak hour
- SR-91 westbound, Jct. Rte. 19 to Clark Ave., during both peak hours
- SR-91 westbound, Clark Ave. to Bellflower Blvd., during the AM peak hour
- SR-91 westbound, Bellflower Blvd. to Jct. Rte. 605, during the AM peak hour
- I-110 southbound, Sepulveda Blvd. to Carson St., during the PM peak hour
- I-110 southbound, Carson St. to Torrance/Del Amo Blvd., during both peak hours
- I-110 southbound, Torrance/Del Amo Blvd. to Jct. Rte. 405, during both peak hours
- I-110 southbound, Jct. Rte. 405 to Jct. Rte. 91, during both peak hours
- I-110 southbound, Redondo Beach Blvd. to Rosecrans Ave., during the AM peak hour
- I-110 southbound, Rosecrans Ave. to El Segundo Blvd., during both peak hours
- I-110 southbound, Century Blvd. to Manchester Ave., during both peak hours
- I-110 southbound, Manchester Ave. to Florence Ave., during both peak hours
- I-110 southbound, Florence Ave. to Gage Ave., during both peak hours
- I-110 southbound, Gage Ave. to Slauson Ave., during both peak hours
- I-110 southbound, Slauson Ave. to 51st St., during both peak hours
- I-110 southbound, 51st St. to Vernon Ave., during both peak hours
- I-110 southbound, Vernon Ave. to Martin Luther King Jr. Blvd., during the AM peak hour
- I-110 southbound, Martin Luther King Jr. Blvd. to Exposition Blvd., during both peak hours
- I-405 southbound, Cherry Ave. to Orange Ave., during the PM peak hour
- I-405 southbound, Orange Ave. to Atlantic Ave., during the PM peak hour
- I-405 southbound, Atlantic Ave. to Long Beach Blvd, during the PM peak hour
- I-405 southbound, Long Beach Blvd to Jct. Rte. 710, during the PM peak hour
- I-405 southbound, Jct. Rte. 710 to Alameda St., during the PM peak hour
- I-405 southbound, Alameda St. to Wilmington Ave., during the PM peak hour
- I-405 southbound, Wilmington Ave. to Carson St., during the PM peak hour
- I-405 southbound, Carson St. to Avalon Blvd., during the PM peak hour

- I-405 southbound, Avalon Blvd. to Jct. Rte. 110, during the PM peak hour
- I-405 southbound, Jct. Rte. 110 to Vermont Ave., during both peak hours
- I-405 southbound, Vermont Ave. to Normandie Ave., during the PM peak hour
- I-405 southbound, Normandie Ave. to Western Ave., during both peak hours
- I-405 southbound, Western Ave. to Crenshaw Blvd., during both peak hours
- I-405 southbound, Crenshaw Blvd. to Artesia Blvd., during both peak hours
- I-405 southbound, Artesia Blvd. to Hawthorne Blvd., during the AM peak hour
- I-405 southbound, Hawthorne Blvd. to Inglewood Ave., during both peak hours

Table 3.9-15
Existing Plus Project Freeway LOS

ID	Fwy Rte	Post Mile	Location	Northbound/Eastbound								Southbound/Westbound							
				AM Peak Hour				PM Peak Hour				AM Peak Hour				PM Peak Hour			
				Demand	Capacity	D/C	LOS	Demand	Capacity	D/C	LOS	Demand	Capacity	D/C	LOS	Demand	Capacity	D/C	LOS
91-1	91	6.344	Vermont Ave. to Jct. Rte. 110	7,200	12,000	0.60	C	14,760	12,000	1.23	F(0)	9,520	4,000	2.38	F(3)	6,220	4,000	1.56	F(3)
91-2	91	7.426	Jct. Rte. 110 to Avalon Blvd.	7,220	10,000	0.72	C	14,820	10,000	1.48	F(3)	9,600	10,000	0.96	E	6,270	10,000	0.63	C
91-3	91	8.435	Avalon Blvd. to Central Ave.	7,560	10,000	0.76	C	15,520	10,000	1.55	F(3)	10,290	10,000	1.03	F(0)	6,730	10,000	0.67	C
91-4	91	9.162	Central Ave. to Wilmington Ave.	7,850	10,000	0.79	D	16,100	10,000	1.61	F(3)	10,660	10,000	1.07	F(0)	6,970	10,000	0.70	C
91-5	91	10.271	Wilmington Ave. to Alameda St.	7,820	8,000	0.98	E	16,050	8,000	2.01	F(3)	10,660	8,000	1.33	F(1)	6,970	8,000	0.87	D
91-6	91	10.41	Alameda St. to Alameda St./Santa Fe Ave.	8,130	12,000	0.68	C	16,700	12,000	1.39	F(2)	11,080	12,000	0.92	D	7,250	12,000	0.60	C
91-7	91	11.096	Alameda St./Santa Fe Ave. to Long Beach Blvd	8,130	12,000	0.68	C	16,680	12,000	1.39	F(2)	11,050	10,000	1.11	F(0)	7,220	10,000	0.72	C
91-8	91	11.681	Long Beach Blvd. to Jct. Rte. 710	10,690	10,000	1.07	F(0)	11,350	10,000	1.14	F(0)	12,780	10,000	1.28	F(1)	8,450	10,000	0.85	D
91-9	91	13.094	Jct. Rte. 710 to Cherry Ave.	10,870	10,000	1.09	F(0)	11,530	10,000	1.15	F(0)	12,980	12,000	1.08	F(0)	8,580	12,000	0.72	C
91-10	91	13.594	Cherry Ave. to Paramount Blvd.	10,710	10,000	1.07	F(0)	11,370	10,000	1.14	F(0)	12,800	10,000	1.28	F(1)	8,470	10,000	0.85	D
91-11	91	14.103	Paramount Blvd. to Downey Ave.	10,670	12,000	0.89	D	11,320	12,000	0.94	E	12,740	10,000	1.27	F(1)	8,430	10,000	0.84	D
91-12	91	14.618	Downey Ave. to Jct. Rte. 19	9,870	10,000	0.99	E	10,470	10,000	1.05	F(0)	11,770	8,000	1.47	F(3)	7,790	8,000	0.97	E
91-13	91	15.105	Jct. Rte. 19 to Clark Ave.	10,410	12,000	0.87	D	11,040	12,000	0.92	D	12,410	10,000	1.24	F(0)	8,210	10,000	0.82	D
91-14	91	15.614	Clark Ave. to Bellflower Blvd.	10,290	12,000	0.86	D	10,900	12,000	0.91	D	12,260	10,000	1.23	F(0)	8,110	10,000	0.81	D
110-1	110	1.23	Bellflower Blvd. to Jct. Rte. 605	4,460	8,000	0.56	C	3,270	8,000	0.41	B	3,610	8,000	0.45	B	4,380	8,000	0.55	C
110-2	110	2.771	Channel St. to C St.	4,660	10,000	0.47	B	3,420	10,000	0.34	A	3,770	8,000	0.47	B	4,580	8,000	0.57	C
110-3	110	3.264	C St. to Anaheim St.	5,070	10,000	0.51	B	3,710	10,000	0.37	B	4,090	10,000	0.41	B	4,970	10,000	0.50	B
110-4	110	4.061	Anaheim St. to Jct. Rte. 1	7,100	8,000	0.89	D	5,220	8,000	0.65	C	5,720	8,000	0.72	C	6,940	8,000	0.87	D
110-5	110	5.451	Jct. Rte. 1 to Sepulveda Blvd.	9,190	8,000	1.15	F(0)	6,740	8,000	0.84	D	7,430	8,000	0.93	D	9,020	8,000	1.13	F(0)
110-6	110	7.016	Sepulveda Blvd. to Carson St.	10,560	8,000	1.32	F(1)	7,730	8,000	0.97	E	8,540	8,000	1.07	F(0)	10,360	8,000	1.30	F(1)
110-7	110	8.028	Carson St. to Torrance/Del Amo Blvd.	10,860	8,000	1.36	F(2)	7,830	8,000	0.98	E	8,750	8,000	1.09	F(0)	10,600	8,000	1.33	F(1)
110-8	110	8.775	Torrance/Del Amo Blvd. to Jct. Rte. 405	13,500	12,000	1.13	F(0)	9,730	12,000	0.81	D	10,880	8,000	1.36	F(2)	13,170	8,000	1.65	F(3)
110-9	110	9.87	Jct. Rte. 405 to Jct. Rte. 91	8,840	12,000	0.74	C	9,150	12,000	0.76	C	10,090	12,000	0.84	D	9,650	12,000	0.80	D
110-10	110	11.239	Jct. Rte. 91 to Redondo Beach Blvd.	9,190	10,000	0.92	D	9,500	10,000	0.95	E	10,480	10,000	1.05	F(0)	10,030	10,000	1.00	E
110-11	110	11.891	Redondo Beach Blvd. to Rosecrans Ave.	9,560	10,000	0.96	E	9,870	10,000	0.99	E	10,920	10,000	1.09	F(0)	10,440	10,000	1.04	F(0)
110-12	110	12.898	Rosecrans Ave. to El Segundo Blvd.	9,720	10,000	0.97	E	10,020	10,000	1.00	E	11,100	12,000	0.93	D	10,620	12,000	0.89	D
110-13	110	13.82	El Segundo Blvd. to Jct. Rte. 105	10,850	12,000	0.90	D	11,170	12,000	0.93	D	12,380	12,000	1.03	F(0)	11,870	12,000	0.99	E
110-14	110	14.967	Jct. Rte. 105 to Century Blvd.	11,660	10,000	1.17	F(0)	11,990	10,000	1.20	F(0)	13,290	10,000	1.33	F(1)	12,740	10,000	1.27	F(1)
110-15	110	15.976	Century Blvd. to Manchester Ave.	11,340	10,000	1.13	F(0)	11,660	10,000	1.17	F(0)	12,900	10,000	1.29	F(1)	12,360	10,000	1.24	F(0)
110-16	110	16.981	Manchester Ave. to Florence Ave.	12,000	10,000	1.20	F(0)	12,310	10,000	1.23	F(0)	13,030	10,000	1.30	F(1)	12,510	10,000	1.25	F(0)
110-17	110	17.514	Florence Ave. to Gage Ave.	11,930	10,000	1.19	F(0)	12,230	10,000	1.22	F(0)	12,960	10,000	1.30	F(1)	12,430	10,000	1.24	F(0)
110-18	110	17.98	Gage Ave. to Slauson Ave.	11,490	8,000	1.44	F(2)	11,770	8,000	1.47	F(3)	12,460	8,000	1.56	F(3)	11,950	8,000	1.49	F(3)
110-19	110	18.495	Slauson Ave. to 51st St.	11,710	8,000	1.46	F(3)	12,000	8,000	1.50	F(3)	12,700	10,000	1.27	F(1)	12,180	10,000	1.22	F(0)
110-20	110	18.998	51st St. to Vernon Ave.	11,690	10,000	1.17	F(0)	11,980	10,000	1.20	F(0)	12,680	10,000	1.27	F(1)	12,170	10,000	1.22	F(0)
110-21	110	19.502	Vernon Ave. to Martin Luther King Jr. Blvd.	10,590	10,000	1.06	F(0)	10,840	10,000	1.08	F(0)	11,490	8,000	1.44	F(2)	11,020	8,000	1.38	F(2)
110-22	110	19.996	Martin Luther King Jr. Blvd. to Exposition Blvd.	10,240	10,000	1.02	F(0)	10,480	10,000	1.05	F(0)	11,140	10,000	1.11	F(0)	10,690	10,000	1.07	F(0)
405-1	405	3.324	Exposition Blvd. to Jct. Rte. 10	10,870	10,000	1.09	F(0)	8,810	10,000	0.88	D	11,090	10,000	1.11	F(0)	14,490	10,000	1.45	F(2)
405-2	405	4.879	Lakewood Blvd. to Cherry Ave.	11,410	10,000	1.14	F(0)	9,240	10,000	0.92	D	11,620	8,000	1.45	F(2)	15,200	8,000	1.90	F(3)
405-3	405	5.388	Cherry Ave. to Orange Ave.	11,900	8,000	1.49	F(3)	9,640	8,000	1.21	F(0)	12,140	8,000	1.52	F(3)	15,870	8,000	1.98	F(3)
405-4	405	6.076	Orange Ave. to Atlantic Ave.	11,710	8,000	1.46	F(3)	9,490	8,000	1.19	F(0)	11,940	12,000	1.00	E	15,630	12,000	1.30	F(1)
405-5	405	6.34	Atlantic Ave. to Long Beach Blvd	11,660	12,000	0.97	E	9,450	12,000	0.79	D	11,880	10,000	1.19	F(0)	15,530	10,000	1.55	F(3)
405-6	405	7.596	Long Beach Blvd to Jct. Rte. 710	12,030	10,000	1.20	F(0)	10,190	10,000	1.02	F(0)	8,910	10,000	0.89	D	11,200	10,000	1.12	F(0)
405-7	405	8.784	Jct. Rte. 710 to Alameda St.	11,650	10,000	1.17	F(0)	9,870	10,000	0.99	E	8,630	10,000	0.86	D	10,860	10,000	1.09	F(0)
405-8	405	9.556	Alameda St. to Wilmington Ave.	10,860	8,000	1.36	F(2)	9,350	8,000	1.17	F(0)	9,220	8,000	1.15	F(0)	11,220	8,000	1.40	F(2)
405-9	405	10.541	Wilmington Ave. to Carson St.	10,700	8,000	1.34	F(1)	9,210	8,000	1.15	F(0)	9,080	8,000	1.14	F(0)	11,050	8,000	1.38	F(2)
405-10	405	11.224	Carson St. to Avalon Blvd.	11,200	10,000	1.12	F(0)	9,680	10,000	0.97	E	9,600	10,000	0.96	E	11,600	10,000	1.16	F(0)
405-11	405	12.97	Avalon Blvd. to Jct. Rte. 110	11,200	10,000	1.12	F(0)	9,730	10,000	0.97	E	8,350	8,000	1.04	F(0)	10,320	8,000	1.29	F(1)
405-12	405	13.28	Jct. Rte. 110 to Vermont Ave.	11,900	12,000	0.99	E	10,480	12,000	0.87	D	8,970	10,000	0.90	D	10,980	10,000	1.10	F(0)
405-13	405	13.826	Vermont Ave. to Normandie Ave.	11,150	10,000	1.12	F(0)	9,830	10,000	0.98	E	8,360	8,000	1.05	F(0)	10,260	8,000	1.28	F(1)
405-14	405	14.398	Normandie Ave. to Western Ave.	10,700	8,000	1.34	F(1)	9,420	8,000	1.18	F(0)	8,040	8,000	1.01	F(0)	9,860	8,000	1.23	F(0)
405-15	405	15.447	Western Ave. to Crenshaw Blvd.	10,430	8,000	1.30	F(1)	9,170	8,000	1.15	F(0)	7,850	8,000	0.98	E	9,620	8,000	1.20	F(0)
405-16	405	16.573	Crenshaw Blvd. to Artesia Blvd.	10,520	10,000	1.05	F(0)	9,230	10,000	0.92	D	7,910	8,000	0.99	E	9,710	8,000	1.21	F(0)
405-17	405	17.589	Artesia Blvd. to Hawthorne Blvd.	11,010	10,000	1.10	F(0)	9,640	10,000	0.96	E	8,280	8,000	1.04	F(0)	10,180	8,000	1.27	F(1)
405-18	405	18.233	Hawthorne Blvd. to Inglewood Ave.	11,510	10,000	1.15	F(0)	10,060	10,000	1.01	F(0)	8,640	10,000	0.86	D	10,620	10,000	1.06	F(0)
710-1	710	12.97	Inglewood Ave. to Rosecrans Ave.	11,110	12,000	0.93	D	17,230	12,000	1.44	F(2)	10,960	12,000	0.91	D	8,450	12,000	0.70	C
710-2	710	13.945	Jct. Rte. 91 to Alondra Blvd.	11,460	12,000	0.96	E	17,780	12,000	1.48	F(3)	11,300	12,000	0.94	E	8,710	12,000	0.73	C

Note: D/C is demand-to-capacity ratio.

Table 3.9-16
Existing Plus Project Freeway Significant Impacts

Northbound/Eastbound

ID	CMP Station	Fwy Rte	Post Mile	Location	Existing (2017)				2017 Plus Project				2017 Increase in D/C Ratio with Project		2017 Project Has Significant Impact?	
					AM Peak Hour		PM Peak Hour		AM Peak Hour		PM Peak Hour					
					D/C	LOS	D/C	LOS	D/C	LOS	D/C	LOS	AM	PM	AM	PM
91-1		91	6.344	Jct. Rte. 110 to Avalon Blvd.	0.56	C	1.16	**F(0)**	0.58	C	1.18	**F(0)**	0.02	0.02	No	**Yes**
91-2		91	7.426	Avalon Blvd. to Central Ave.	0.69	C	1.42	**F(2)**	0.71	C	1.46	**F(3)**	0.02	0.04	No	**Yes**
91-3		91	8.435	Central Ave. to Wilmington Ave.	0.70	C	1.44	**F(2)**	0.73	C	1.49	**F(3)**	0.03	0.05	No	**Yes**
91-4		91	9.162	Wilmington Ave. to Alameda St.	0.73	C	1.50	**F(3)**	0.76	C	1.55	**F(3)**	0.03	0.05	No	**Yes**
91-5		91	10.271	Alameda St. to Alameda St./Santa F	0.91	D	1.87	**F(3)**	0.94	**E**	1.93	**F(3)**	0.03	0.06	**Yes**	**Yes**
91-6	1033	91	10.41	Alameda St./Santa Fe Ave. to Long	0.63	C	1.30	**F(1)**	0.65	C	1.34	**F(1)**	0.02	0.04	No	**Yes**
91-7		91	11.096	Long Beach Blvd. to Jct. Rte. 710	0.63	C	1.30	**F(1)**	0.65	C	1.34	**F(1)**	0.02	0.04	No	**Yes**
91-8		91	11.681	Jct. Rte. 710 to Cherry Ave.	0.78	D	1.11	**F(0)**	0.79	D	1.14	**F(0)**	0.01	0.03	No	**Yes**
91-9	1034	91	13.094	Cherry Ave. to Paramount Blvd.	0.79	D	1.13	**F(0)**	0.80	D	1.15	**F(0)**	0.01	0.02	No	**Yes**
91-10		91	13.594	Paramount Blvd. to Downey Ave.	0.78	D	1.12	**F(0)**	0.79	D	1.14	**F(0)**	0.01	0.02	No	No
91-11		91	14.103	Downey Ave. to Jct. Rte. 19	0.65	C	0.93	D	0.66	C	0.94	**E**	0.01	0.01	No	No
91-12		91	14.618	Jct. Rte. 19 to Clark Ave.	0.72	C	1.03	**F(0)**	0.73	C	1.05	**F(0)**	0.01	0.02	No	**Yes**
91-13		91	15.105	Clark Ave. to Bellflower Blvd.	0.63	C	0.90	D	0.64	C	0.92	D	0.01	0.02	No	No
91-14		91	15.614	Bellflower Blvd. to Jct. Rte. 605	0.63	C	0.89	D	0.63	C	0.91	D	0.00	0.02	No	No
110-1	1045	110	1.23	Channel St. to C St.	0.54	B	0.39	B	0.56	C	0.41	B	0.02	0.02	No	No
110-2		110	2.771	C St. to Anaheim St.	0.45	B	0.32	A	0.47	B	0.34	A	0.02	0.02	No	No
110-3		110	3.264	Anaheim St. to Jct. Rte. 1	0.49	B	0.35	A	0.51	B	0.37	B	0.02	0.02	No	No
110-4		110	4.061	Jct. Rte. 1 to Sepulveda Blvd.	0.86	D	0.62	C	0.89	D	0.65	C	0.03	0.03	No	No
110-5		110	5.451	Sepulveda Blvd. to Carson St.	1.11	**F(0)**	0.80	D	1.15	**F(0)**	0.84	D	0.04	0.04	**Yes**	No
110-6		110	7.016	Carson St. to Torrance/Del Amo Blvd	1.28	**F(1)**	0.93	D	1.32	**F(1)**	0.97	**E**	0.04	0.04	**Yes**	**Yes**
110-7		110	8.028	Torrance/Del Amo Blvd. to Jct. Rte.	1.36	**F(2)**	0.98	**E**	1.39	**F(2)**	1.02	**F(0)**	0.03	0.04	**Yes**	**Yes**
110-8		110	8.775	Jct. Rte. 405 to Jct. Rte. 91	1.12	**F(0)**	0.81	D	1.15	**F(0)**	0.84	D	0.03	0.03	**Yes**	No
110-9		110	9.87	Jct. Rte. 91 to Redondo Beach Blvd.	0.74	C	0.75	C	0.76	C	0.78	D	0.02	0.03	No	No
110-10		110	11.239	Redondo Beach Blvd. to Rosecrans	0.84	D	0.85	D	0.86	D	0.89	D	0.02	0.04	No	No
110-11		110	11.891	Rosecrans Ave. to El Segundo Blvd.	0.88	D	0.89	D	0.89	D	0.92	D	0.01	0.03	No	No
110-12		110	12.898	El Segundo Blvd. to Jct. Rte. 105	0.89	D	0.91	D	0.91	D	0.94	**E**	0.02	0.03	No	**Yes**
110-13		110	13.82	Jct. Rte. 105 to Century Blvd.	0.79	D	0.80	D	0.80	D	0.82	D	0.01	0.02	No	No
110-14		110	14.967	Century Blvd. to Manchester Ave.	0.99	**E**	1.00	**E**	1.00	**E**	1.03	**F(0)**	0.01	0.03	No	**Yes**
110-15	1046	110	15.976	Manchester Ave. to Florence Ave.	0.96	**E**	0.98	**E**	0.97	**E**	1.00	**E**	0.01	0.02	No	**Yes**
110-16		110	16.981	Florence Ave. to Gage Ave.	0.99	**E**	1.01	**F(0)**	1.00	**E**	1.03	**F(0)**	0.01	0.02	No	**Yes**
110-17	1047	110	17.514	Gage Ave. to Slauson Ave.	0.98	**E**	1.00	**E**	0.99	**E**	1.02	**F(0)**	0.01	0.02	No	**Yes**
110-18		110	17.98	Slauson Ave. to 51st St.	1.14	**F(0)**	1.16	**F(0)**	1.15	**F(0)**	1.18	**F(0)**	0.01	0.02	No	**Yes**
110-19		110	18.495	51st St. to Vernon Ave.	1.16	**F(0)**	1.18	**F(0)**	1.17	**F(0)**	1.20	**F(0)**	0.01	0.02	No	**Yes**
110-20		110	18.998	Vernon Ave. to Martin Luther King Jr.	0.97	**E**	0.98	**E**	0.97	**E**	1.00	**E**	0.00	0.02	No	**Yes**
110-21		110	19.502	Martin Luther King Jr. Blvd. to Expos	0.87	D	0.89	D	0.88	D	0.90	D	0.01	0.01	No	No
110-22		110	19.996	Exposition Blvd. to Jct. Rte. 10	0.85	D	0.86	D	0.85	D	0.87	D	0.00	0.01	No	No
405-1		405	3.324	Lakewood Blvd. to Cherry Ave.	1.16	**F(0)**	0.99	**E**	1.18	**F(0)**	1.00	**E**	0.02	0.01	**Yes**	No
405-2		405	4.879	Cherry Ave. to Orange Ave.	1.22	**F(0)**	1.04	**F(0)**	1.24	**F(0)**	1.05	**F(0)**	0.02	0.01	**Yes**	No
405-3		405	5.388	Orange Ave. to Atlantic Ave.	1.59	**F(3)**	1.35	**F(1)**	1.61	**F(3)**	1.37	**F(2)**	0.02	0.02	**Yes**	**Yes**
405-4		405	6.076	Atlantic Ave. to Long Beach Blvd	1.57	**F(3)**	1.33	**F(1)**	1.59	**F(3)**	1.35	**F(1)**	0.02	0.02	**Yes**	**Yes**
405-5		405	6.34	Long Beach Blvd to Jct. Rte. 710	1.04	**F(0)**	0.88	D	1.05	**F(0)**	0.89	D	0.01	0.01	No	No
405-6	1066	405	7.596	Jct. Rte. 710 to Alameda St.	1.18	**F(0)**	1.00	**E**	1.20	**F(0)**	1.02	**F(0)**	0.02	0.02	**Yes**	**Yes**
405-7		405	8.784	Alameda St. to Wilmington Ave.	1.14	**F(0)**	0.97	**E**	1.17	**F(0)**	0.99	**E**	0.03	0.02	**Yes**	**Yes**
405-8		405	9.556	Wilmington Ave. to Carson St.	1.33	**F(1)**	1.15	**F(0)**	1.36	**F(2)**	1.17	**F(0)**	0.03	0.02	**Yes**	**Yes**
405-9		405	10.541	Carson St. to Avalon Blvd.	1.31	**F(1)**	1.13	**F(0)**	1.34	**F(1)**	1.15	**F(0)**	0.03	0.02	**Yes**	**Yes**
405-10	1067	405	11.224	Avalon Blvd. to Jct. Rte. 110	1.12	**F(0)**	0.97	**E**	1.15	**F(0)**	0.99	**E**	0.03	0.02	**Yes**	**Yes**
405-11		405	12.97	Jct. Rte. 110 to Vermont Ave.	1.12	**F(0)**	0.97	**E**	1.14	**F(0)**	1.00	**E**	0.02	0.03	No	**Yes**
405-12		405	13.28	Vermont Ave. to Normandie Ave.	0.97	**E**	0.85	D	0.99	**E**	0.87	D	0.02	0.02	**Yes**	No
405-13		405	13.826	Normandie Ave. to Western Ave.	1.09	**F(0)**	0.95	**E**	1.11	**F(0)**	0.98	**E**	0.02	0.03	**Yes**	**Yes**
405-14		405	14.398	Western Ave. to Crenshaw Blvd.	1.31	**F(1)**	1.14	**F(0)**	1.34	**F(1)**	1.18	**F(0)**	0.03	0.04	**Yes**	**Yes**
405-15		405	15.447	Crenshaw Blvd. to Artesia Blvd.	1.28	**F(1)**	1.11	**F(0)**	1.30	**F(1)**	1.15	**F(0)**	0.02	0.04	**Yes**	**Yes**
405-16		405	16.573	Artesia Blvd. to Hawthorne Blvd.	1.04	**F(0)**	0.90	D	1.05	**F(0)**	0.92	D	0.01	0.02	No	No
405-17		405	17.589	Hawthorne Blvd. to Inglewood Ave.	1.09	**F(0)**	0.95	**E**	1.10	**F(0)**	0.96	**E**	0.01	0.01	No	No
405-18	1068	405	18.233	Inglewood Ave. to Rosecrans Ave.	1.14	**F(0)**	0.99	**E**	1.15	**F(0)**	1.01	**F(0)**	0.01	0.02	No	**Yes**
710-1		710	12.97	Jct. Rte. 91 to Alondra Blvd.	0.88	D	1.37	**F(2)**	0.89	D	1.38	**F(2)**	0.01	0.01	No	No
710-2		710	13.945	Alondra Blvd. to Jct. Rte. 105	0.91	D	1.41	**F(2)**	0.92	D	1.42	**F(2)**	0.01	0.01	No	No

Note: D/C is demand-to-capacity ratio.

Table 3.9-16
Existing Plus Project Freeway Significant Impacts

Southbound/Westbound

ID	CMP Station	Fwy Rte	Post Mile	Location	Existing (2017)				2017 Plus Project				2017 Increase in D/C Ratio with Project		2017 Project Has Significant Impact?	
					AM Peak Hour		PM Peak Hour		AM Peak Hour		PM Peak Hour					
					D/C	LOS	D/C	LOS	D/C	LOS	D/C	LOS	AM	PM	AM	PM
91-1		91	6.344	Jct. Rte. 110 to Avalon Blvd.	2.25	F(3)	1.53	F(3)	2.29	F(3)	1.56	F(3)	0.04	0.03	Yes	Yes
91-2		91	7.426	Avalon Blvd. to Central Ave.	0.92	D	0.63	C	0.96	E	0.65	C	0.04	0.02	Yes	No
91-3		91	8.435	Central Ave. to Wilmington Ave.	0.94	E	0.64	C	0.99	E	0.67	C	0.05	0.03	Yes	No
91-4		91	9.162	Wilmington Ave. to Alameda St.	0.97	E	0.66	C	1.03	F(0)	0.70	C	0.06	0.04	Yes	No
91-5		91	10.271	Alameda St. to Alameda St./Santa Fe	1.21	F(0)	0.83	D	1.28	F(1)	0.87	D	0.07	0.04	Yes	No
91-6	1033	91	10.41	Alameda St./Santa Fe Ave. to Long Be	0.84	D	0.57	C	0.89	D	0.60	C	0.05	0.03	No	No
91-7		91	11.096	Long Beach Blvd. to Jct. Rte. 710	1.01	F(0)	0.69	C	1.06	F(0)	0.72	C	0.05	0.03	Yes	No
91-8		91	11.681	Jct. Rte. 710 to Cherry Ave.	1.25	F(0)	0.88	D	1.28	F(1)	0.90	D	0.03	0.02	Yes	No
91-9	1034	91	13.094	Cherry Ave. to Paramount Blvd.	1.06	F(0)	0.75	C	1.08	F(0)	0.76	C	0.02	0.01	Yes	No
91-10		91	13.594	Paramount Blvd. to Downey Ave.	1.25	F(0)	0.88	D	1.28	F(1)	0.90	D	0.03	0.02	Yes	No
91-11		91	14.103	Downey Ave. to Jct. Rte. 19	1.25	F(0)	0.88	D	1.27	F(1)	0.90	D	0.02	0.02	Yes	No
91-12		91	14.618	Jct. Rte. 19 to Clark Ave.	1.44	F(2)	1.02	F(0)	1.47	F(3)	1.04	F(0)	0.03	0.02	Yes	Yes
91-13		91	15.105	Clark Ave. to Bellflower Blvd.	1.22	F(0)	0.86	D	1.24	F(0)	0.87	D	0.02	0.01	Yes	No
91-14		91	15.614	Bellflower Blvd. to Jct. Rte. 605	1.21	F(0)	0.85	D	1.23	F(0)	0.86	D	0.02	0.01	Yes	No
110-1	1045	110	1.23	Channel St. to C St.	0.43	B	0.53	B	0.45	B	0.55	C	0.02	0.02	No	No
110-2		110	2.771	C St. to Anaheim St.	0.45	B	0.55	C	0.47	B	0.57	C	0.02	0.02	No	No
110-3		110	3.264	Anaheim St. to Jct. Rte. 1	0.39	B	0.48	B	0.41	B	0.50	B	0.02	0.02	No	No
110-4		110	4.061	Jct. Rte. 1 to Sepulveda Blvd.	0.69	C	0.84	D	0.72	C	0.87	D	0.03	0.03	No	No
110-5		110	5.451	Sepulveda Blvd. to Carson St.	0.90	D	1.09	F(0)	0.93	D	1.13	F(0)	0.03	0.04	No	Yes
110-6		110	7.016	Carson St. to Torrance/Del Amo Blvd.	1.04	F(0)	1.25	F(0)	1.07	F(0)	1.30	F(1)	0.03	0.05	Yes	Yes
110-7		110	8.028	Torrance/Del Amo Blvd. to Jct. Rte. 4	1.09	F(0)	1.33	F(1)	1.13	F(0)	1.37	F(2)	0.04	0.04	Yes	Yes
110-8		110	8.775	Jct. Rte. 405 to Jct. Rte. 91	1.36	F(2)	1.65	F(3)	1.39	F(2)	1.69	F(3)	0.03	0.04	Yes	Yes
110-9		110	9.87	Jct. Rte. 91 to Redondo Beach Blvd.	0.81	D	0.78	D	0.84	D	0.80	D	0.03	0.02	No	No
110-10		110	11.239	Redondo Beach Blvd. to Rosecrans A	0.92	D	0.88	D	0.95	E	0.91	D	0.03	0.03	Yes	No
110-11		110	11.891	Rosecrans Ave. to El Segundo Blvd.	0.96	E	0.92	D	0.99	E	0.95	E	0.03	0.03	Yes	Yes
110-12		110	12.898	El Segundo Blvd. to Jct. Rte. 105	0.82	D	0.79	D	0.85	D	0.82	D	0.03	0.03	No	No
110-13		110	13.82	Jct. Rte. 105 to Century Blvd.	0.86	D	0.83	D	0.88	D	0.85	D	0.02	0.02	No	No
110-14		110	14.967	Century Blvd. to Manchester Ave.	1.08	F(0)	1.04	F(0)	1.11	F(0)	1.06	F(0)	0.03	0.02	Yes	Yes
110-15	1046	110	15.976	Manchester Ave. to Florence Ave.	1.05	F(0)	1.01	F(0)	1.08	F(0)	1.03	F(0)	0.03	0.02	Yes	Yes
110-16		110	16.981	Florence Ave. to Gage Ave.	1.06	F(0)	1.02	F(0)	1.09	F(0)	1.04	F(0)	0.03	0.02	Yes	Yes
110-17	1047	110	17.514	Gage Ave. to Slauson Ave.	1.06	F(0)	1.02	F(0)	1.08	F(0)	1.04	F(0)	0.02	0.02	Yes	Yes
110-18		110	17.98	Slauson Ave. to 51st St.	1.22	F(0)	1.17	F(0)	1.25	F(0)	1.20	F(0)	0.03	0.03	Yes	Yes
110-19		110	18.495	51st St. to Vernon Ave.	1.04	F(0)	1.00	E	1.06	F(0)	1.02	F(0)	0.02	0.02	Yes	Yes
110-20		110	18.998	Vernon Ave. to Martin Luther King Jr.	1.04	F(0)	1.00	E	1.06	F(0)	1.01	F(0)	0.02	0.01	Yes	No
110-21		110	19.502	Martin Luther King Jr. Blvd. to Exposit	1.12	F(0)	1.08	F(0)	1.15	F(0)	1.10	F(0)	0.03	0.02	Yes	Yes
110-22		110	19.996	Exposition Blvd. to Jct. Rte. 10	0.91	D	0.87	D	0.93	D	0.89	D	0.02	0.02	No	No
405-1		405	3.324	Lakewood Blvd. to Cherry Ave.	0.87	D	1.09	F(0)	0.88	D	1.10	F(0)	0.01	0.01	No	No
405-2		405	4.879	Cherry Ave. to Orange Ave.	1.14	F(0)	1.42	F(2)	1.15	F(0)	1.44	F(2)	0.01	0.02	No	Yes
405-3		405	5.388	Orange Ave. to Atlantic Ave.	1.19	F(0)	1.48	F(3)	1.20	F(0)	1.50	F(3)	0.01	0.02	No	Yes
405-4		405	6.076	Atlantic Ave. to Long Beach Blvd	0.78	D	0.97	E	0.79	D	0.99	E	0.01	0.02	No	Yes
405-5		405	6.34	Long Beach Blvd to Jct. Rte. 710	0.93	D	1.16	F(0)	0.94	E	1.18	F(0)	0.01	0.02	No	Yes
405-6	1066	405	7.596	Jct. Rte. 710 to Alameda St.	0.88	D	1.10	F(0)	0.89	D	1.12	F(0)	0.01	0.02	No	Yes
405-7		405	8.784	Alameda St. to Wilmington Ave.	0.85	D	1.06	F(0)	0.86	D	1.09	F(0)	0.01	0.03	No	Yes
405-8		405	9.556	Wilmington Ave. to Carson St.	1.14	F(0)	1.37	F(2)	1.15	F(0)	1.40	F(2)	0.01	0.03	No	Yes
405-9		405	10.541	Carson St. to Avalon Blvd.	1.12	F(0)	1.35	F(1)	1.14	F(0)	1.38	F(2)	0.02	0.03	No	Yes
405-10	1067	405	11.224	Avalon Blvd. to Jct. Rte. 110	0.96	E	1.16	F(0)	0.97	E	1.18	F(0)	0.01	0.02	No	Yes
405-11		405	12.97	Jct. Rte. 110 to Vermont Ave.	1.04	F(0)	1.29	F(1)	1.08	F(0)	1.32	F(1)	0.04	0.03	Yes	Yes
405-12		405	13.28	Vermont Ave. to Normandie Ave.	0.87	D	1.08	F(0)	0.90	D	1.10	F(0)	0.03	0.02	No	Yes
405-13		405	13.826	Normandie Ave. to Western Ave.	1.02	F(0)	1.26	F(1)	1.05	F(0)	1.28	F(1)	0.03	0.02	Yes	Yes
405-14		405	14.398	Western Ave. to Crenshaw Blvd.	0.98	E	1.21	F(0)	1.01	F(0)	1.23	F(0)	0.03	0.02	Yes	Yes
405-15		405	15.447	Crenshaw Blvd. to Artesia Blvd.	0.96	E	1.18	F(0)	0.98	E	1.20	F(0)	0.02	0.02	Yes	Yes
405-16		405	16.573	Artesia Blvd. to Hawthorne Blvd.	0.97	E	1.20	F(0)	0.99	E	1.21	F(0)	0.02	0.01	Yes	No
405-17		405	17.589	Hawthorne Blvd. to Inglewood Ave.	1.02	F(0)	1.25	F(0)	1.04	F(0)	1.27	F(1)	0.02	0.02	Yes	Yes
405-18	1068	405	18.233	Inglewood Ave. to Rosecrans Ave.	0.85	D	1.05	F(0)	0.86	D	1.06	F(0)	0.01	0.01	No	No
710-1		710	12.97	Jct. Rte. 91 to Alondra Blvd.	0.86	D	0.69	C	0.88	D	0.70	C	0.02	0.01	No	No
710-2		710	13.945	Alondra Blvd. to Jct. Rte. 105	0.89	D	0.71	C	0.91	D	0.73	C	0.02	0.02	No	No

Note: D/C is demand-to-capacity ratio.

Pedestrian Impacts

The proposed project would provide safe pedestrian connections between campus buildings, adjacent streets, and transit facilities, and would not significantly disrupt existing or planned pedestrian facilities or significantly conflict with applicable non-automotive transportation plans, guidelines, policies, or standards. Additionally, Sunday stadium events will include temporary pre-event and post-event control of intersections by traffic control officers who will be able to stop traffic to allow pedestrians to safely cross the street when going to and from the stadium (see **Appendix F**); to ensure impacts are less than significant, these project design features also are included as mitigation measures to ensure their implementation. Therefore, the proposed Project would not result in potentially significant impacts relative to pedestrians under this scenario.

Bicyclist Impacts

The proposed project would not significantly disrupt existing or planned bicycle facilities nor would it significantly conflict with applicable non-automotive transportation plans, guidelines, policies, or standards. Additionally, Sunday stadium events will include temporary pre-event and post-event control of intersections by traffic control officers who will be able to stop traffic to allow bicyclists to safely cross the street when going to and from the stadium (see **Appendix F**); to ensure impacts are less than significant, these project design features also are included as mitigation measures to ensure their implementation. Therefore, the proposed Project would not result in potentially significant impacts relative to bicyclists under this scenario.

Transit Impacts

CSU guidelines state that a significant transit impact would occur if, "*A project significantly disrupts existing or planned transit facilities and services or significantly conflicts with applicable transit plans, guidelines, policies, or standards*."

The proposed project would not significantly disrupt existing or planned transit facilities and services, nor would it significantly conflict with applicable transit plans, guidelines, policies, or standards. Therefore, the proposed Project would not result in potentially significant impacts relative to transit under this scenario.

As a supplement to the transit analysis procedure described in the CSU Transportation Impact Study Manual, based on the substantial transit services available in the CSUDH area, an analysis was performed of the capacity of the local transit system to accommodate an increase in passengers attributable to the Project.

The analysis was conducted in three steps. First, the number of additional transit trips that would be generated by the proposed Project was estimated using available mode share data; that is, available data illustrating the percentage of travel utilizing transit. Thereafter, the capacity of the area's transit systems to accommodate the additional passengers was assessed. The final step was to compare the number of new trips attributable to the Project with the available capacity of the system to determine if the increase in passengers could be accommodated by the system. Because CSU has not developed criteria specific to a transit capacity analysis, and due to the location of the proposed Project in Los Angeles County, for the limited purposes of this analysis the LA Metro

standards[3] relative to passenger loading were used. The LA Metro standards are shown in **Table 3.9-17**, Loading Standards for Weekday AM and PM Periods.

Table 3.9-17
Loading Standards for Weekday AM and PM Periods

Frequency Range in Minutes	Passengers Per Seat
1-10	1.40
11-20	1.30
21-40	1.20
41-60	1.10
60+	1.00

Project Transit Demand Estimate

Several sources of information were reviewed regarding the transit mode share at CSUDH and for the City of Carson more generally. Based on data from the CSUDH Transportation Services Department, approximately 1% of students purchase transit access passes. Accounting for the fact that all students who utilize transit may not purchase transit access passes, based on this data point it is estimated that approximately 2% of CSUDH students utilize public transit to travel to/from the campus. In addition to the CSUDH Transportation Services Department data, the LA County CMP Transit Impact Methodology also was reviewed. The CMP methodology recommends assuming 1.4 person trips per car trip and 3.4% of person-trips by transit for locations not within ¼ mile of transit centers or rail transit. These percentages are consistent with U.S. Census data[4] for the City of Carson, which reports a 3.4% transit mode share. To conduct the analysis, the higher of the two sources, i.e. the 3.4% share from the CMP rather than the 2% from the CSU data, was used to ensure a conservative estimate of Project impacts.

Using the LA County CMP methodology to conduct the analysis, for every 100 car-trips to the campus there would be 4.9 transit trips. This ratio of 4.49 transit trips for every 100 car trips was combined with the auto trip generation rate for the various Project components to identify a transit trip generation rate for the proposed Project (see **Table 3.9-18**, Computation of Transit Trip Generation Rate).

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[3] Transit Service Policy. Los Angeles County Metropolitan Transportation Authority, October 2015. Pg. 50. Transit-related thresholds to be applied at other CSU campuses throughout the state will vary dependent upon multiple factors, including project location.

[4] U.S. Census Bureau American FactFinder website, accessed November 8, 2018

Table 3.9-18
Computation of Transit Trip Generation Rate

Land Use (ITE Code)	Unit	Transit Trips per 100 Car Trips	AM Peak Hour		PM Peak Hour	
			Auto Rate	Transit Rate	Rate	Transit Rate
		(A)	(B)	(C)=(A)*(B)/100	(D)	(E)=(A)*(D)/100
On-Campus Student	Students	4.9	0.033	0.002	0.093	0.005
Off-Campus Student	Students	4.9	0.151	0.007	0.161	0.008
Faculty and Staff	Employee	4.9	0.067	0.003	0.013	0.001
High School (530)	Students	4.9	0.430	0.021	0.130	0.006
Child Care Centers	Students	4.9	0.962	0.047	0.962	0.047
Market Rate Housing (220)	Dwelling Unit	4.9	0.51	0.025	0.62	0.030
Retail (820)	1,000 sq. ft.	4.9	1.58	0.078	6.07	0.297
Business Park (770)	1,000 sq. ft.	4.9	1.34	0.066	1.21	0.059

The proposed Project transit trip generation rates were then applied to the number of units in each component of the Project (students, ~~market rate~~campus apartment housings~~,~~ etc.) to estimate the number of peak-hour transit trips that would be generated by the Project. This number is shown in **Table 3.9-19**, Project Peak-Hour Transit Trips. As shown, the exhibit distinguishes direction of travel, with some project components generating inbound trips in the morning and outbound trips in the evening, while other components generate trips in the opposite direction. The analysis ultimately focused on Project trips in the peak direction, which is the relevant timeframe for assessing demand and capacity. Peak direction was identified in **Table 3.9-19** as inbound towards the campus in the AM peak hour and outbound away from the campus in the PM peak hour. If the peak hour peak direction demand can be accommodated, then the non-peak direction can also be accommodated. As shown on **Table 3.9-19**, the Project would generate a net increase of 134 transit trips in the AM peak hour, and 154 transit trips in the PM peak hour.

Table 3.9-19
Project Peak-Hour Transit Trips

Land Use (ITE Code)	Unit	Existing Conditions					2035 Alternative 1				
		Number of Units	AM Transit Trip-Gen Rate	AM Peak Hour Transit Trips	PM Transit Trip-Gen Rate	PM Peak Hour Transit Trips	Number of Units	AM Peak Hour Transit Trips	Net Increase in Trips in AM (i.e. Project trips)	PM Peak Hour Transit Trips	Net Increase in Trips in PM (i.e. Project trips)
		(A)	(B)	(C)=(A)*(B)	(D)	(E)=(A)*(D)	(F)	(G)=(B)*(F)	(H)=(G)-(C)	(I)=(D)*(F)	(J)=(I)-(E)
Inbound in AM, Outbound in PM											
Off-Campus Student	Students	12,822	0.007	95	0.008	101	22,645	167	72	179	78
Faculty and Staff	Employee	1,052	0.003	3	0.001	1	1,892	6	3	1	1
High School (530)	Students	676	0.021	14	0.006	4	676	14	0	4	0
Child Care Centers	Students	92	0.047	4	0.047	4	184	9	4	9	4
Retail (820)	1,000 sq. ft.	0	0.078	0	0.297	0	96,085	7	7	29	29
Business Park (770)	1,000 sq. ft.	0	0.066	0	0.059	0	720,918	47	47	43	43
Subtotal				117		111		251	**134**	265	**154**
									Project Peak Direction Trips		
Outbound in AM, Inbound in PM											
On-Campus Student	Students	649	0.002	1	0.005	3	1,588	3	2	7	4
Market Rate Housing (220)	Dwelling Unit	0	0.025	0	0.030	0	2,149	54	54	65	65
Subtotal				1		3		56	55	73	70

The next step in the analysis was to determine how Project transit trips would be distributed among the various transit lines serving the CSUDH campus. This determination was made based on the SCAG travel demand model[5]. Based on the model, the total number of arriving or departing Project trips was distributed among the transit lines as shown in **Table 3.9-20**, Project Transit Trips by Transit Route[6]. Since the SCAG model only depicts AM transit operations and does not explicitly represent PM transit operations, the reverse of the AM peak directionality was used for the PM. The resulting number of passengers for each transit system is the number of Project passengers (i.e., the Project transit demand) that would need to be accommodated by each respective system, as shown in **Table 3.9-20**.

Table 3.9-20
Project Transit Trips by Transit Route

Transit Operator	Route	% of Campus Transit Arrivals	AM Arriving Project Passengers	% of Campus Transit Departures	PM Departing Project Passengers
City of Carson	A	20.1%	27	20%	31
City of Carson	E	0.0%	0	0%	0
City of Carson	H	1.5%	2	1%	2
Torrance Transit	6 E	5.3%	7	6%	10
Torrance Transit	6 W	6.3%	9	5%	8
Metro	52 N	20.1%	27	0%	1
Metro	52 S	0.4%	1	20%	31
Metro	53 N	20.1%	27	0%	1
Metro	53 S	0.4%	1	20%	31
Metro	130 E	6.6%	9	8%	12
Metro	130 W	8.0%	11	7%	10
Metro	205 N	3.0%	4	1%	2
Metro	205 S	1.5%	2	3%	5
Metro	246 N	3.0%	4	2%	3
Metro	246 S	2.2%	3	3%	5
Long Beach Transit	1 N	0.7%	1	1%	1
Long Beach Transit	1 S	0.7%	1	1%	1
Total		100%	136	100%	154

Comparing Project Trips to the Available Transit Capacity

Once the Project peak hour transit trips were estimated, the next step was to compute the available capacity of each route. This computation is shown in **Table 3.9-21**, Determination of Plus Project Transit Capacity Impacts. The following descriptions, with corresponding letters, correspond to columns in the exhibit:

[5] The SCAG travel demand model does not explicitly represent the Toro Shuttle. The Toro Shuttle goes between the Blue Line station and the campus, as does Metro Route 130. Accordingly, for purposes of the analysis, the demand for the Toro Shuttle was included as part of the Route 130 demand in the model.

[6] The number of AM arriving trips in **Table 3.9-21** is slightly different from **Table 3.9-20** due to rounding.

Capacity of Transit

A. Peak hour headways were obtained from each transit route's schedule.

B. The number of seats per vehicle was obtained directly from the transit agency, except for Metro routes, which were assumed an average seating capacity of a standard 40 feet municipal bus.

C. The peak hour seated capacity was calculated by dividing the number of seats by the headway in an hour. For example, if the number of seats is 40 and the headway is 30 minutes, the hourly seated capacity is 80 seats.

Existing Transit Operations

D. The load factor standard was taken from Metro's Transit Service Policy, as shown earlier in **Table 3.9-17**.

E. The Existing AM Peak Hour load for City of Carson Transit was estimated from its monthly ridership obtained from the City of Carson. For the remaining transit lines, the peak hour maximum load near the campus was obtained from the SCAG travel demand model.

F. The Existing AM Peak Hour load factor was then calculated by dividing the existing peak hour load by the peak hour seated capacity.

Existing Plus Project Transit Demand

G. The number of new AM peak hour transit passengers generated by the Project for each route was taken from **Table 3.9-20**.

H. The Existing AM Peak Hour Plus Project passenger load was then estimated by adding the Project riders to the existing peak hour load.

I. The Existing AM Peak Hour Plus Project load factor was then estimated by dividing the Existing Plus Project transit load by peak hour seated capacity.

Steps E through I were repeated for the PM Peak hour in steps J through N.

The final two columns in **Table 3.9-21** compare the load factors for the Existing and Existing Plus Project condition with the load factor standard shown in Column D. The conclusion is that there are no existing *deficiencies* in the transit system serving the CSUDH campus and that the addition of the Project would not cause any deficiencies to arise. Therefore, the Project would have no significant transit capacity impacts under this scenario.

Moreover, the Existing Plus Project scenario represents the worst case in terms of potential transit impacts because transit service providers monitor demand growth and add capacity as needed. This means that the Existing Conditions study year represents the lowest amount of available capacity that the system is likely to have throughout the planning horizon of this study. Since there would be no significant transit capacity impacts under the worse-case scenario, it is reasonable to conclude that there would be no significant transit capacity impacts in any of the other future year scenarios (i.e., 2019 Sunday, Interim Year, and Buildout Year).

Table 3.9-21
Determination of Plus Project Transit Capacity Impacts

Route		Headway (minutes)	Seats per vehicle	Peak Hour Seated Capacity	Load Factor Standard (maximum allowable)	Existing AM Peak Hour Load	Existing AM Load Factor	AM Arriving Project Passengers	AM Load with Project	AM Load Factor with Project	Existing PM Peak Hour Load	Existing PM Load Factor	PM Departing Project Passengers	PM Load with Project	PM Load Factor with Project	Existing Deficiency?	Deficiency with Project?
		(A)	(B)	(C)=(B)/(A)/60	(D)	(E)	(F)=(E)/(C)	(G)	(H)=(E)+(G)	(I)=(H)/(C)	(J)	(K)=(J)/(C)	(L)	(M)=(J)+(L)	(N)=(M)/(C)	(E)>(D) or (K)>(D)?	(I)>(D) or (N)>(D)?
City of Carson	A	40	35	53	1.20	11	0.21	27	38	0.72	11	0.21	31	42	0.80	No	No
City of Carson	E	60	35	35	1.00	4	0.10	0	4	0.10	4	0.10	0	4	0.10	No	No
City of Carson	H	40	35	53	1.20	9	0.18	2	11	0.22	9	0.18	2	11	0.22	No	No
Torrance Transit	6 E	40	40	60	1.20	16	0.27	7	23	0.38	17	0.28	10	27	0.45	No	No
Torrance Transit	6 W	40	40	60	1.20	17	0.28	9	26	0.43	16	0.27	8	24	0.40	No	No
Metro	52 N	20	40	120	1.30	90	0.75	27	117	0.97	24	0.20	1	25	0.21	No	No
Metro	52 S	20	40	120	1.30	24	0.20	1	25	0.21	90	0.75	31	121	1.00	No	No
Metro	53 N	20	40	120	1.30	90	0.75	27	117	0.97	24	0.20	1	25	0.21	No	No
Metro	53 S	20	40	120	1.30	24	0.20	1	25	0.21	90	0.75	31	121	1.00	No	No
Metro	130 E	30	40	80	1.20	34	0.43	9	43	0.54	68	0.85	12	80	1.00	No	No
Metro	130 W	30	40	80	1.20	68	0.85	11	79	0.98	34	0.43	10	44	0.55	No	No
Metro	205 N	30	40	80	1.20	24	0.30	4	28	0.35	64	0.80	2	66	0.83	No	No
Metro	205 S	30	40	80	1.20	64	0.80	2	66	0.83	24	0.30	5	29	0.36	No	No
Metro	246 N	30	40	80	1.20	65	0.81	4	69	0.86	39	0.49	3	42	0.53	No	No
Metro	246 S	30	40	80	1.20	39	0.49	3	42	0.53	65	0.81	5	70	0.88	No	No
Long Beach Transit	1 N	30	29	58	1.20	6	0.10	1	7	0.12	8	0.14	1	9	0.16	No	No
Long Beach Transit	1 S	30	29	58	1.20	8	0.14	1	9	0.16	6	0.10	1	7	0.12	No	No

Existing Sunday Plus Project Conditions

Traffic volumes for the Existing Sunday Plus Project Conditions were developed by adding the traffic for a 27,000 seat event to the existing non-event Sunday traffic counts, thereby resulting in No Project conditions, and to those resulting volumes adding in the traffic generated by the Master Plan buildout on a Sunday, including the 3,000 additional stadium seats. See **Table 3.9-11**, Sunday Shuttle Bus Trip Generation for a 30,000 Seat Event, and **Table 3.9-12**, Sunday Peak Hour Car Trip Generation for a 30,000 Seat Event. The 30,000 seat events will include off-site parking at several locations and temporary traffic controls both before and after the events (see **Appendix F**); to ensure implementation, these project design features also are included as mitigation measures.

Intersection LOS

Intersection LOS analysis results are summarized in **Table 3.9-22**, Existing Sunday Plus Project Additional 3,000 Seats Intersection LOS. As shown, under this scenario, all of the study area intersections will operate at LOS D or better during both pre-event and post-event conditions.

Table 3.9-22
Existing Sunday Plus Project Additional 3,000-Seats Intersection LOS

Study ID	Intersection Name	Control Type	Pre-Game Peak Hour		Post-Game Peak Hour	
			V/C Ratio	ICU LOS	V/C Ratio	ICU LOS
1	Victoria St./Drive D	TWSC	0.591	A	0.494	A
2	Victoria St./Tamcliff Ave.	Signalized	0.341	A	0.603	B
3	Victoria St./Birchknoll Dr.	Signalized	0.206	A	0.659	B
9	University Dr./Toro Center Dr.	TWSC	0.575	A	0.734	C
10	Albertoni St./SR 91 EB Ramps	Signalized	0.577	A	0.320	A
11	Avalon Blvd./SR 91 WB On-Ramp	Signalized	0.661	B	0.816	D
12	Avalon Blvd./Albertoni St.	Signalized	0.800	C	0.615	B
13	Avalon Blvd./Victoria St.	Signalized	0.715	C	0.564	A
14	Central Ave./Artesia Blvd. WB	Signalized	0.537	A	0.448	A
15	Central Ave./Albertoni St./Artesia Blvd. EB	Signalized	0.519	A	0.474	A
16	Central Ave./Victoria St.	Signalized	0.781	C	0.559	A
17	Wilmington Ave./Artesia Blvd. WB	Signalized	0.505	A	0.542	A
18	Wilmington Ave./Artesia Blvd. EB	Signalized	0.381	A	0.804	D
19	Wilmington Ave./Victoria St.	Signalized	0.536	A	0.624	B
22	Figueroa St./190th St./Victoria St.	Signalized	0.469	A	0.331	A
24	Main St./Victoria St.	Signalized	0.438	A	0.316	A
25	Avalon Blvd./University Dr.	Signalized	0.644	B	0.890	D
26	Avalon Blvd./Del Amo Blvd.	Signalized	0.732	C	0.773	C
27	Avalon Blvd./I-405 NB Ramps	Signalized	0.650	B	0.528	A
28	Avalon Blvd./I-405 SB Ramps	Signalized	0.587	A	0.457	A
29	Central Ave./University Dr.	Signalized	0.837	D	0.674	B
30	Wilmington Ave./University Dr.	Signalized	0.777	C	0.426	A
31	Central Ave./Del Amo Blvd.	Signalized	0.459	A	0.430	A
32	Wilmington Ave./Del Amo Blvd.	Signalized	0.537	A	0.505	A
38	Avalon Blvd./184th St.	Signalized	0.475	A	0.383	A
39	Avalon Blvd./182nd St.	TWSC	0.369	A	0.644	B
40	Victoria St./Drive C	TWSC	0.675	B	0.347	A
41	Victoria St./Rainsbury Ave.	TWSC	0.809	D	0.384	A
42	Avalon Blvd./Harbor Village/Colony Cove	Signalized	0.677	B	0.567	A

Source: TIS (February 2019)

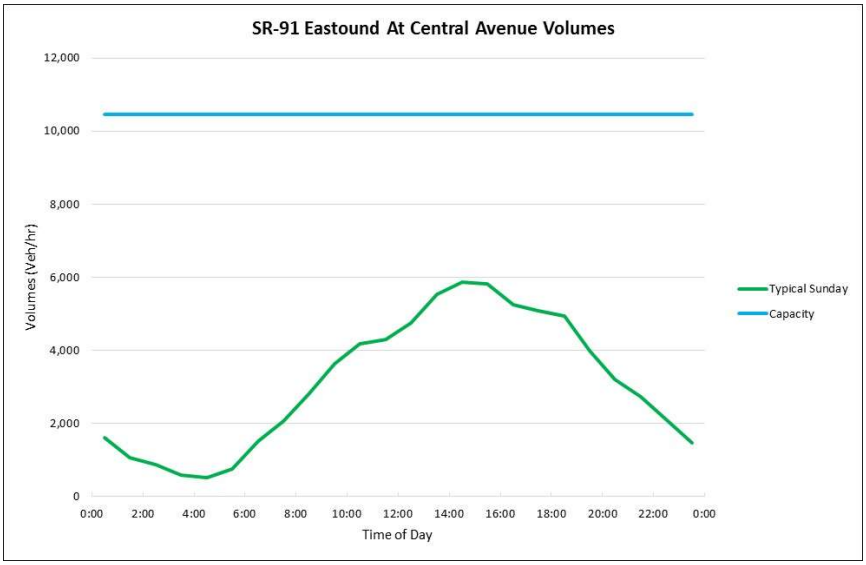
Freeway Analysis

With respect to freeways, Caltrans' traffic impact analysis guidelines focus on the weekday peak periods rather than weekends. The guidelines' lack of forecasts for Sunday traffic, lack of LOS thresholds for Sundays, and lack of Sunday trip generation rates for most land uses preclude preparation of a typical analysis of freeway impacts.

On that basis, the traffic engineer reviewed the intersection analysis presented above for the additional 3,000 seats to determine whether the Project would add more than 150 vehicles at any location (the threshold for analysis). Based on that review, the project would add more than 150 vehicles at only one location -- SR-91 Eastbound. **Figure 3.9-14**, Comparison of Sunday Freeway Traffic to Capacity, below, compares Sunday traffic

volumes[7] on SR-91 to the capacity of the freeway. As shown in the exhibit, the freeway is at most only about half full on Sundays and, therefore, can easily accommodate the additional 170 trips that would be generated by the proposed Project and, therefore, impacts would be less than significant.

Figure 3.9-14
Comparison of Sunday Freeway Traffic to Capacity



Pedestrian Conditions

The additional 3,000 seats to be provided as part of the proposed project and the corresponding increase in pedestrian traffic will not significantly disrupt existing or planned pedestrian facilities or significantly conflict with applicable non-automotive transportation plans, guidelines, policies, or standards. The event will include temporary pre-event and post-event control of intersections by traffic control officers who will be able to stop traffic to allow pedestrians to safely cross the street when going to and from the stadium (see **Appendix F**); to ensure impacts are less than significant, these project design features also are included as mitigation measures to ensure their implementation. Therefore, this project component will not have any significant pedestrian impacts under this scenario.

Bicycle Conditions

The additional 3,000 seats to be provided as part of the proposed project and the corresponding increase in bicycle traffic will not significantly disrupt existing or planned bicycle facilities or significantly conflict with applicable non-automotive transportation plans, guidelines, policies, or standards. The event will include temporary pre-event and post-event control of intersections by traffic control officers whose presence will make the

[7] This data comes from PeMS, Caltrans' system of embedded loops.

streets around StubHub Center safer for bicyclists than streets that are unsupervised (see **Appendix F**); to ensure impacts are less than significant, these project design features also are included as mitigation measures to ensure their implementation. Therefore, this project component will not have any significant bicycle impacts under this scenario.

Transit Conditions

The 30,000-seat event will not significantly disrupt existing or planned transit facilities or significantly conflict with applicable non-automotive transit plans, guidelines, policies, or standards. The project component also will complement the existing transit system by providing shuttle buses from transit centers to the stadium (see **Appendix F**). Therefore, the proposed project would not result in significant impacts to transit under this scenario. Please also see the analysis of transit impacts under the Existing plus Project scenario.

Year 2019 Sunday Plus Project Conditions

As previously noted, the only component of the 2018 Campus Master Plan anticipated to be completed in the near-near term is the provision of an additional 3,000 seats at the existing StubHub Center stadium. Pursuant to the Master Plan, the seating at the existing stadium will be increased by 3,000 seats, from the existing seating for 27,000 spectators to 30,000 spectators. The stadium will continue to be the home field of the Los Angeles Galaxy MLS, and to provide a venue for NFL Sunday games, as well as other Sunday sporting events.

Traffic volumes for the Year 2019 Sunday Plus Project Conditions were developed by factoring up the existing non-event Sunday traffic counts to 2019 using the growth factor from the Los Angeles County CMP, adding in the traffic for a 27,000-seat event, thereby resulting in No Project conditions, and to those resulting volumes adding in the traffic generated by the Master Plan, including traffic generated by the 3,000-seats that would be added as part of the proposed project.

Intersection LOS

Intersection LOS analysis results are summarized in **Table 3.9-23**, Year 2019 Sunday Plus Project Additional 3,000 Seats Intersection LOS. As shown, under this scenario, all of the study area intersections will operate at LOS D or better during both pre- event and post-event conditions.

Table 3.9-23
Year 2019 Sunday Plus Project Additional 3,000-Seats Intersection LOS

Study ID	Intersection Name	Control Type	Pre-Game Peak Hour		Post-Game Peak Hour	
			V/C Ratio	ICU LOS	V/C Ratio	ICU LOS
1	Victoria St./Drive D	TWSC	0.591	A	0.500	A
2	Victoria St./Tamcliff Ave.	Signalized	0.347	A	0.619	B
3	Victoria St./Birchknoll Dr.	Signalized	0.216	A	0.666	B
9	University Dr./Toro Center Dr.	TWSC	0.575	A	0.734	C
10	Albertoni St./SR 91 EB Ramps	Signalized	0.583	A	0.320	A
11	Avalon Blvd./SR 91 WB On-Ramp	Signalized	0.666	B	0.822	D
12	Avalon Blvd./Albertoni St.	Signalized	0.807	D	0.619	B
13	Avalon Blvd./Victoria St.	Signalized	0.725	C	0.575	A
14	Central Ave./Artesia Blvd. WB	Signalized	0.548	A	0.460	A
15	Central Ave./Albertoni St./Artesia Blvd. EB	Signalized	0.534	A	0.480	A
16	Central Ave./Victoria St.	Signalized	0.813	D	0.588	A
17	Wilmington Ave./Artesia Blvd. WB	Signalized	0.519	A	0.546	A
18	Wilmington Ave./Artesia Blvd. EB	Signalized	0.397	A	0.810	D
19	Wilmington Ave./Victoria St.	Signalized	0.549	A	0.634	B
22	Figueroa St./190th St./Victoria St.	Signalized	0.478	A	0.334	A
24	Main St./Victoria St.	Signalized	0.444	A	0.319	A
25	Avalon Blvd./University Dr.	Signalized	0.651	B	0.894	D
26	Avalon Blvd./Del Amo Blvd.	Signalized	0.769	C	0.829	D
27	Avalon Blvd./I-405 NB Ramps	Signalized	0.681	B	0.564	A
28	Avalon Blvd./I-405 SB Ramps	Signalized	0.642	B	0.507	A
29	Central Ave./University Dr.	Signalized	0.859	D	0.699	B
30	Wilmington Ave./University Dr.	Signalized	0.802	D	0.443	A
31	Central Ave./Del Amo Blvd.	Signalized	0.496	A	0.464	A
32	Wilmington Ave./Del Amo Blvd.	Signalized	0.558	A	0.535	A
38	Avalon Blvd./184th St.	Signalized	0.475	A	0.387	A
39	Avalon Blvd./182nd St.	TWSC	0.375	A	0.648	B
40	Victoria St./Drive C	TWSC	0.681	B	0.356	A
41	Victoria St./Rainsbury Ave.	TWSC	0.813	D	0.391	A
42	Avalon Blvd./Harbor Village/Colony Cove	Signalized	0.681	B	0.571	A

Source: TIS (February 2019)

Freeway Analysis

As discussed in the Freeway Analysis presented under the Existing Sunday Plus Project Conditions scenario, the proposed Project would not result in significant freeway impacts under Sunday conditions.

Pedestrian Conditions

The additional 3,000 seats to be provided as part of the proposed project and the corresponding increase in pedestrian traffic will not significantly disrupt existing or planned pedestrian facilities or significantly conflict with applicable non-automotive transportation plans, guidelines, policies, or standards. The event will include temporary

pre-event and post-event control of intersections by traffic control officers who will be able to stop traffic to allow pedestrians to safely cross the street when going to and from the stadium (see **Appendix F**); to ensure impacts are less than significant, these project design features also are included as mitigation measures to ensure their implementation. Therefore, this project component will not have any significant pedestrian impacts under this scenario.

Bicycle Conditions

The additional 3,000 seats to be provided as part of the proposed project and the corresponding increase in bicycle traffic will not significantly disrupt existing or planned bicycle facilities or significantly conflict with applicable non-automotive transportation plans, guidelines, policies, or standards. The event will include temporary pre-event and post-event control of intersections by traffic control officers whose presence will make the streets around StubHub Center safer for bicyclists than streets that are unsupervised (see **Appendix F**); to ensure impacts are less than significant, these project design features also are included as mitigation measures to ensure their implementation. Therefore, this project components will not have any significant bicycle impacts under this scenario.

Transit Conditions

The 30,000-seat event will not significantly disrupt existing or planned transit facilities or significantly conflict with applicable non-automotive transit plans, guidelines, policies, or standards. The event will complement the transit system by providing shuttle buses from transit centers to the stadium (see **Appendix F**). Therefore, the proposed project would not result in significant impacts to transit under this scenario. Please also see the analysis of transit impacts under the Existing plus Project scenario.

Interim Year (2025) No Project Conditions

Traffic volumes for the 2025 No Project condition were developed by factoring up the existing weekday traffic counts using the LA CMP growth factor and then adding in the traffic for other reasonably foreseeable development projects that may appreciably affect traffic volumes in the vicinity of the campus vicinity.[8]

Study Area Intersections

Table 3.9-24, Interim Year (2025) No Project Weekday Intersection LOS, summarizes the results of the intersection LOS analysis under this scenario. As shown, the following 7 intersections will operate below the target LOS D in Year 2025 without the proposed project:

[8] The cumulative projects included as part of the analysis include all development projects listed in the City of Carson's Development Status Report as of August 28, 2017 at http://ci.carson.ca.us/communitydevelopment/devstatusreport.aspx.

- No. 1 — Victoria Ave./Drive D (PM peak hour)
- No. 5 — Central Ave./Charles Willard St. (AM peak hour)
- No. 20 — I-110 SB Off-Ramp/190th St. (AM and PM peak hours)
- No. 24 — Main St./Victoria St. (PM peak hour)
- No. 26 — Avalon Blvd./Del Amo Blvd. (PM peak hour)
- No. 33 — W. Artesia Blvd./Crenshaw Blvd. (AM and PM peak hours)
- No. 35 — W. Artesia Blvd./Vermont Ave. (PM peak hour)

Intersections 1, 20, 33, and 35 are already operating at LOS E or worse under Existing Conditions, and intersections 5, 24, and 26 are new deficiencies under No Project Year 2025 conditions.

Table 3.9-24
Interim Year (2025) No Project Weekday Intersection LOS

Study ID	Intersection Name	Control Type	AM Peak Hour		PM Peak Hour	
			V/C Ratio or Delay	LOS (ICU or HCM)	V/C Ratio or Delay	LOS (ICU or HCM)
1	Victoria St./Drive D	TWSC	25.8	D	>180	**F**
2	Victoria St./Tamcliff Ave.	Signalized	0.438	A	0.603	B
3	Victoria St./Birchknoll Dr.	Signalized	0.566	A	0.688	B
4	Victoria St./Project Service Rd.	N/A	N/A	N/A	N/A	N/A
5	Central Ave./Charles Willard St.	TWSC	38.6	**E**	33.2	D
6	Central Ave./Beachey Pl.	TWSC	19	C	22.3	C
7	Central Ave./Glenn Curtiss St.	Signalized	0.45	A	0.506	A
8	University Dr./Birchknoll Dr. Ext.	N/A	N/A	N/A	N/A	N/A
9	University Dr./Toro Center Dr.	TWSC	13.4	B	14.7	B
10	Albertoni St./SR 91 EB Ramps	Signalized	0.614	B	0.8	C
11	Avalon Blvd./SR 91 WB On-Ramp	Signalized	0.522	A	0.523	A
12	Avalon Blvd./Albertoni St.	Signalized	0.616	B	0.815	D
13	Avalon Blvd./Victoria St.	Signalized	0.619	B	0.885	D
14	Central Ave./Artesia Blvd. WB	Signalized	0.792	C	0.754	C
15	Central Ave./Albertoni St./Artesia Blvd. EB	Signalized	0.803	D	0.79	C
16	Central Ave./Victoria St.	Signalized	0.572	A	0.694	B
17	Wilmington Ave./Artesia Blvd. WB	Signalized	0.727	C	0.735	C
18	Wilmington Ave./Artesia Blvd. EB	Signalized	0.731	C	0.743	C
19	Wilmington Ave./Victoria St.	Signalized	0.539	A	0.569	A
20	I-110 SB Off-Ramp/190th St.	Signalized	1.063	**F**	1.091	**F**
21	I-110 NB On-Ramp/190th St.	Signalized	0.5	A	0.713	C
22	Figueroa St./190th St./Victoria St.	Signalized	0.822	D	0.869	D
23	Broadway/Victoria St.	Signalized	0.581	A	0.753	C
24	Main St./Victoria St.	Signalized	0.653	B	0.9	**E**
25	Avalon Blvd./University Dr.	Signalized	0.46	A	0.649	B
26	Avalon Blvd./Del Amo Blvd.	Signalized	0.854	D	0.945	**E**
27	Avalon Blvd./I-405 NB Ramps	Signalized	0.506	A	0.51	A
28	Avalon Blvd./I-405 SB Ramps	Signalized	0.592	A	0.569	A
29	Central Ave./University Dr.	Signalized	0.581	A	0.522	A
30	Wilmington Ave./University Dr.	Signalized	0.504	A	0.583	A
31	Central Ave./Del Amo Blvd.	Signalized	0.74	C	0.72	C
32	Wilmington Ave./Del Amo Blvd.	Signalized	0.67	B	0.7	C
33	W. Artesia Blvd./Crenshaw Blvd.	Signalized	0.947	**E**	1.016	**F**
34	W. 190th St./S. Western Ave.	Signalized	0.839	D	0.792	C
35	W. Artesia Blvd./Vermont Ave.	Signalized	0.849	D	1.054	**F**
36	Alameda St./Compton Blvd.	Signalized	0.681	B	0.734	C
37	Alameda St./SR 91 EB Ramps	Signalized	0.578	A	0.788	C

*Intersection LOS was calculated using HCM 2000 Delay Method, because ICU cannot be calculated for TWSC intersections.

Source: TIS (February 2019)

Study Area Freeway Segments

The Interim Year (2025) No Project Conditions LOS for the study area freeway segments are shown in **Table 3.9-25**, 2025 Weekday No Project LOS Study Area Freeway Locations. As shown, the following 7 CMP monitoring locations do not meet the target LOS of D or better under this scenario; these are the same 7 locations that already operate at LOS worse than D under Existing Conditions:

- CMP Station No. 1033 — SR-91 East of Alameda St./Santa Fe Ave., Eastbound (PM peak hour)
- CMP Station No. 1034 — SR-91 East of Cherry Ave., Eastbound (PM peak hour) and Westbound (AM peak hour)
- CMP Station No. 1046 — I-110 at Manchester Blvd., Eastbound and Westbound (AM and PM peak hours)
- CMP Station No. 1047 — I-110 at Slauson Ave., Eastbound and Westbound (AM and PM peak hours)
- CMP Station No. 1066 — I-405 at Santa Fe Ave., Northbound (AM and PM peak hours) and Southbound (PM peak hour)
- CMP Station No. 1067 — I-405 South of I-110 at the Carson Scales, Northbound (AM and PM peak hours) and Southbound (AM and PM peak hours)
- CMP Station No. 1068 — I-405 North of Inglewood Ave. at Compton Blvd., Northbound (AM and PM peak hour) and Southbound (PM peak hour)

In addition to the CMP monitoring locations, the following study area freeway segments also are forecast to have an LOS worse than D:

- SR-91 eastbound, Jct. Rte. 110 to Avalon Blvd., during the PM peak hour
- SR-91 eastbound, Avalon Blvd. to Central Ave., during the PM peak hour
- SR-91 eastbound, Central Ave. to Wilmington Ave., during the PM peak hour
- SR-91 eastbound, Wilmington Ave. to Alameda St., during the PM peak hour
- SR-91 eastbound, Alameda St. to Alameda St./Santa Fe Ave., during both peak hours
- SR-91 eastbound, Long Beach Blvd. to Jct. Rte. 710, during the PM peak hour
- SR-91 eastbound, Jct. Rte. 710 to Cherry Ave., during the PM peak hour
- SR-91 eastbound, Paramount Blvd. to Downey Ave., during the PM peak hour
- SR-91 eastbound, Downey Ave. to Jct. Rte. 19, during the PM peak hour
- SR-91 eastbound, Jct. Rte. 19 to Clark Ave., during the PM peak hour
- SR-91 eastbound, Clark Ave. to Bellflower Blvd., during the PM peak hour

- SR-91 eastbound, Bellflower Blvd. to Jct. Rte. 605, during the PM peak hour
- I-110 northbound, Sepulveda Blvd. to Carson St., during the AM peak hour
- I-110 northbound, Carson St. to Torrance/Del Amo Blvd., during both peak hours
- I-110 northbound, Torrance/Del Amo Blvd. to Jct. Rte. 405, during both peak hours
- I-110 northbound, Jct. Rte. 405 to Jct. Rte. 91, during the AM peak hour
- I-110 northbound, Century Blvd. to Manchester Ave., during both peak hours
- I-110 northbound, Florence Ave. to Gage Ave., during both peak hours
- I-110 northbound, Slauson Ave. to 51st St., during both peak hours
- I-110 northbound, 51st St. to Vernon Ave., during both peak hours
- I-110 northbound, Vernon Ave. to Martin Luther King Jr. Blvd., during both peak hours
- I-405 northbound, Lakewood Blvd. to Cherry Ave., during both peak hours
- I-405 northbound, Cherry Ave. to Orange Ave., during both peak hours
- I-405 northbound, Orange Ave. to Atlantic Ave., during both peak hours
- I-405 northbound, Atlantic Ave. to Long Beach Blvd, during both peak hours
- I-405 northbound, Long Beach Blvd to Jct. Rte. 710, during both peak hours
- I-405 northbound, Alameda St. to Wilmington Ave., during both peak hours
- I-405 northbound, Wilmington Ave. to Carson St., during both peak hours
- I-405 northbound, Carson St. to Avalon Blvd., during both peak hours
- I-405 northbound, Jct. Rte. 110 to Vermont Ave., during both peak hours
- I-405 northbound, Vermont Ave. to Normandie Ave., during the AM peak hour
- I-405 northbound, Normandie Ave. to Western Ave., during both peak hours
- I-405 northbound, Western Ave. to Crenshaw Blvd., during both peak hours
- I-405 northbound, Crenshaw Blvd. to Artesia Blvd., during both peak hours
- I-405 northbound, Artesia Blvd. to Hawthorne Blvd., during the AM peak hour
- I-405 northbound, Hawthorne Blvd. to Inglewood Ave., during both peak hours
- I-710 northbound, Jct. Rte. 91 to Alondra Blvd., during both peak hours
- I-710 northbound, Alondra Blvd. to Jct. Rte. 105, during both peak hours
- SR-91 westbound, Jct. Rte. 110 to Avalon Blvd., during both peak hours
- SR-91 westbound, Avalon Blvd. to Central Ave., during the AM peak hour
- SR-91 westbound, Central Ave. to Wilmington Ave., during the AM peak hour

- SR-91 westbound, Wilmington Ave. to Alameda St., during the AM peak hour
- SR-91 westbound, Alameda St. to Alameda St./Santa Fe Ave., during the AM peak hour
- SR-91 westbound, Long Beach Blvd. to Jct. Rte. 710, during the AM peak hour
- SR-91 westbound, Jct. Rte. 710 to Cherry Ave., during both peak hours
- SR-91 westbound, Paramount Blvd. to Downey Ave., during both peak hours
- SR-91 westbound, Downey Ave. to Jct. Rte. 19, during the AM peak hour
- SR-91 westbound, Jct. Rte. 19 to Clark Ave., during both peak hours
- SR-91 westbound, Clark Ave. to Bellflower Blvd., during the AM peak hour
- SR-91 westbound, Bellflower Blvd. to Jct. Rte. 605, during the AM peak hour
- I-110 southbound, Sepulveda Blvd. to Carson St., during the PM peak hour
- I-110 southbound, Carson St. to Torrance/Del Amo Blvd., during both peak hours
- I-110 southbound, Torrance/Del Amo Blvd. to Jct. Rte. 405, during both peak hours
- I-110 southbound, Jct. Rte. 405 to Jct. Rte. 91, during both peak hours
- I-110 southbound, Redondo Beach Blvd. to Rosecrans Ave., during the AM peak hour
- I-110 southbound, Rosecrans Ave. to El Segundo Blvd., during both peak hours
- I-110 southbound, Century Blvd. to Manchester Ave., during both peak hours
- I-110 southbound, Florence Ave. to Gage Ave., during both peak hours
- I-110 southbound, Slauson Ave. to 51st St., during both peak hours
- I-110 southbound, 51st St. to Vernon Ave., during both peak hours
- I-110 southbound, Vernon Ave. to Martin Luther King Jr. Blvd., during both peak hours
- I-110 southbound, Martin Luther King Jr. Blvd. to Exposition Blvd., during both peak hours
- I-405 southbound, Lakewood Blvd. to Cherry Ave., during both peak hours
- I-405 southbound, Cherry Ave. to Orange Ave., during both peak hours
- I-405 southbound, Orange Ave. to Atlantic Ave., during both peak hours
- I-405 southbound, Atlantic Ave. to Long Beach Blvd, during the PM peak hour
- I-405 southbound, Long Beach Blvd to Jct. Rte. 710, during both peak hours
- I-405 southbound, Alameda St. to Wilmington Ave., during the PM peak hour
- I-405 southbound, Wilmington Ave. to Carson St., during both peak hours

- I-405 southbound, Carson St. to Avalon Blvd., during both peak hours
- I-405 southbound, Jct. Rte. 110 to Vermont Ave., during both peak hours
- I-405 southbound, Vermont Ave. to Normandie Ave., during the PM peak hour
- I-405 southbound, Normandie Ave. to Western Ave., during both peak hours
- I-405 southbound, Western Ave. to Crenshaw Blvd., during the both peak hours
- I-405 southbound, Crenshaw Blvd. to Artesia Blvd., during both peak hours
- I-405 southbound, Artesia Blvd. to Hawthorne Blvd., during both peak hours
- I-405 southbound, Hawthorne Blvd. to Inglewood Ave., during both peak hours
- I-710 southbound, Alondra Blvd. to Jct. Rte. 105, during the AM peak hour

Table 3.9-25
2025 Weekday No Project LOS for Study Area Freeway Locations

ID	CMP Station	Fwy Rte	Post Mile	Location	Northbound/Eastbound								Southbound/Westbound							
					AM Peak Hour				PM Peak Hour				AM Peak Hour				PM Peak Hour			
					Demand	Capacity	D/C	LOS	Demand	Capacity	D/C	LOS	Demand	Capacity	D/C	LOS	Demand	Capacity	D/C	LOS
91-1		91	6.344	Jct. Rte. 110 to Avalon Blvd.	7,000	12,000	0.58	C	14,400	12,000	1.20	F(0)	9,300	4,000	2.33	F(3)	6,300	4,000	1.58	F(3)
91-2		91	7.426	Avalon Blvd. to Central Ave.	7,200	10,000	0.72	C	14,700	10,000	1.47	F(3)	9,500	10,000	0.95	E	6,500	10,000	0.65	C
91-3		91	8.435	Central Ave. to Wilmington Ave.	7,300	10,000	0.73	C	14,900	10,000	1.49	F(3)	9,700	10,000	0.97	E	6,600	10,000	0.66	C
91-4		91	9.162	Wilmington Ave. to Alameda St.	7,600	10,000	0.76	C	15,500	10,000	1.55	F(3)	10,000	10,000	1.00	E	6,800	10,000	0.68	C
91-5		91	10.271	Alameda St. to Alameda St./Santa Fe Ave.	7,900	8,000	0.99	E	16,200	8,000	2.03	F(3)	10,500	8,000	1.31	F(1)	7,100	8,000	0.89	D
91-6	1033	91	10.41	Alameda St./Santa Fe Ave. to Long Beach Blvd.	8,200	12,000	0.68	C	16,800	12,000	1.40	F(2)	10,900	12,000	0.91	D	7,400	12,000	0.62	C
91-7		91	11.096	Long Beach Blvd. to Jct. Rte. 710	8,200	12,000	0.68	C	16,800	12,000	1.40	F(2)	10,900	10,000	1.09	F(0)	7,400	10,000	0.74	C
91-8		91	11.681	Jct. Rte. 710 to Cherry Ave.	8,400	10,000	0.84	D	12,000	10,000	1.20	F(0)	13,500	10,000	1.35	F(1)	9,500	10,000	0.95	E
91-9	1034	91	13.094	Cherry Ave. to Paramount Blvd.	8,500	10,000	0.85	D	12,200	10,000	1.22	F(0)	13,700	12,000	1.14	F(0)	9,600	12,000	0.80	D
91-10		91	13.594	Paramount Blvd. to Downey Ave.	8,300	10,000	0.83	D	11,800	10,000	1.18	F(0)	13,300	10,000	1.33	F(1)	9,400	10,000	0.94	E
91-11		91	14.103	Downey Ave. to Jct. Rte. 19	8,300	12,000	0.69	C	11,800	12,000	0.98	E	13,200	10,000	1.32	F(1)	9,300	10,000	0.93	D
91-12		91	14.618	Jct. Rte. 19 to Clark Ave.	7,600	10,000	0.76	C	10,900	10,000	1.09	F(0)	12,300	8,000	1.54	F(3)	8,600	8,000	1.08	F(0)
91-13		91	15.105	Clark Ave. to Bellflower Blvd.	8,100	12,000	0.68	C	11,500	12,000	0.96	E	12,900	10,000	1.29	F(1)	9,100	10,000	0.91	D
91-14		91	15.614	Bellflower Blvd. to Jct. Rte. 605	8,000	12,000	0.67	C	11,400	12,000	0.95	E	12,800	10,000	1.28	F(1)	9,000	10,000	0.90	D
110-1	1045	110	1.23	Channel St. to C St.	4,500	8,000	0.56	C	3,200	8,000	0.40	B	3,600	8,000	0.45	B	4,300	8,000	0.54	B
110-2		110	2.771	C St. to Anaheim St.	4,700	10,000	0.47	B	3,400	10,000	0.34	A	3,800	8,000	0.48	B	4,500	8,000	0.56	C
110-3		110	3.264	Anaheim St. to Jct. Rte. 1	5,100	10,000	0.51	B	3,600	10,000	0.36	B	4,100	10,000	0.41	B	4,900	10,000	0.49	B
110-4		110	4.061	Jct. Rte. 1 to Sepulveda Blvd.	7,100	8,000	0.89	D	5,100	8,000	0.64	C	5,700	8,000	0.71	C	6,900	8,000	0.86	D
110-5		110	5.451	Sepulveda Blvd. to Carson St.	9,200	8,000	1.15	F(0)	6,600	8,000	0.83	D	7,400	8,000	0.93	D	9,000	8,000	1.13	F(0)
110-6		110	7.016	Carson St. to Torrance/Del Amo Blvd.	10,600	8,000	1.33	F(1)	7,700	8,000	0.96	E	8,600	8,000	1.08	F(0)	10,400	8,000	1.30	F(1)
110-7		110	8.028	Torrance/Del Amo Blvd. to Jct. Rte. 405	11,200	8,000	1.40	F(2)	8,100	8,000	1.01	F(0)	9,100	8,000	1.14	F(0)	11,000	8,000	1.38	F(2)
110-8		110	8.775	Jct. Rte. 405 to Jct. Rte. 91	13,800	12,000	1.15	F(0)	9,900	12,000	0.83	D	11,100	8,000	1.39	F(2)	13,500	8,000	1.69	F(3)
110-9		110	9.87	Jct. Rte. 91 to Redondo Beach Blvd.	9,100	12,000	0.76	C	9,200	12,000	0.77	C	9,900	12,000	0.83	D	9,600	12,000	0.80	D
110-10		110	11.239	Redondo Beach Blvd. to Rosecrans Ave.	9,400	11,000	0.85	D	9,600	11,000	0.87	D	10,300	11,000	0.94	E	9,900	11,000	0.90	D
110-11		110	11.891	Rosecrans Ave. to El Segundo Blvd.	9,800	11,000	0.89	D	10,000	11,000	0.91	D	10,800	11,000	0.98	E	10,400	11,000	0.95	E
110-12		110	12.898	El Segundo Blvd. to Jct. Rte. 105	10,000	11,000	0.91	D	10,200	11,000	0.93	D	11,000	13,000	0.85	D	10,600	13,000	0.82	D
110-13		110	13.82	Jct. Rte. 105 to Century Blvd.	11,200	14,000	0.80	D	11,400	14,000	0.81	D	12,200	14,000	0.87	D	11,800	14,000	0.84	D
110-14		110	14.967	Century Blvd. to Manchester Ave.	12,000	12,000	1.00	E	12,200	12,000	1.02	F(0)	13,100	12,000	1.09	F(0)	12,700	12,000	1.06	F(0)
110-15	1046	110	15.976	Manchester Ave. to Florence Ave.	11,700	12,000	0.98	E	11,900	12,000	0.99	E	12,800	12,000	1.07	F(0)	12,300	12,000	1.03	F(0)
110-16		110	16.981	Florence Ave. to Gage Ave.	12,100	12,000	1.01	F(0)	12,300	12,000	1.03	F(0)	12,900	12,000	1.08	F(0)	12,500	12,000	1.04	F(0)
110-17	1047	110	17.514	Gage Ave. to Slauson Ave.	12,000	12,000	1.00	E	12,200	12,000	1.02	F(0)	12,900	12,000	1.08	F(0)	12,400	12,000	1.03	F(0)
110-18		110	17.98	Slauson Ave. to 51st St.	11,600	10,000	1.16	F(0)	11,700	10,000	1.17	F(0)	12,400	10,000	1.24	F(0)	11,900	10,000	1.19	F(0)
110-19		110	18.495	51st St. to Vernon Ave.	11,800	10,000	1.18	F(0)	12,000	10,000	1.20	F(0)	12,600	12,000	1.05	F(0)	12,200	12,000	1.02	F(0)
110-20		110	18.998	Vernon Ave. to Martin Luther King Jr. Blvd.	11,800	12,000	0.98	E	12,000	12,000	1.00	E	12,600	12,000	1.05	F(0)	12,200	12,000	1.02	F(0)
110-21		110	19.502	Martin Luther King Jr. Blvd. to Exposition Blvd.	10,700	12,000	0.89	D	10,800	12,000	0.90	D	11,400	10,000	1.14	F(0)	11,000	10,000	1.10	F(0)
110-22		110	19.996	Exposition Blvd. to Jct. Rte. 10	10,300	12,000	0.86	D	10,500	12,000	0.88	D	11,100	12,000	0.93	D	10,700	12,000	0.89	D
405-1		405	3.324	Lakewood Blvd. to Cherry Ave.	12,500	10,000	1.25	F(0)	10,700	10,000	1.07	F(0)	9,400	10,000	0.94	E	11,700	10,000	1.17	F(0)
405-2		405	4.879	Cherry Ave. to Orange Ave.	13,200	10,000	1.32	F(1)	11,200	10,000	1.12	F(0)	9,800	8,000	1.23	F(0)	12,300	8,000	1.54	F(3)
405-3		405	5.388	Orange Ave. to Atlantic Ave.	13,700	8,000	1.71	F(3)	11,700	8,000	1.46	F(3)	10,200	8,000	1.28	F(1)	12,800	8,000	1.60	F(3)
405-4		405	6.076	Atlantic Ave. to Long Beach Blvd	13,500	8,000	1.69	F(3)	11,500	8,000	1.44	F(2)	10,100	12,000	0.84	D	12,600	12,000	1.05	F(0)
405-5		405	6.34	Long Beach Blvd to Jct. Rte. 710	13,400	12,000	1.12	F(0)	11,400	12,000	0.95	E	10,000	10,000	1.00	E	12,500	10,000	1.25	F(0)
405-6	1066	405	7.596	Jct. Rte. 710 to Alameda St.	12,200	10,000	1.22	F(0)	10,400	10,000	1.04	F(0)	9,100	10,000	0.91	D	11,400	10,000	1.14	F(0)
405-7		405	8.784	Alameda St. to Wilmington Ave.	11,800	10,000	1.18	F(0)	10,000	10,000	1.00	E	8,800	10,000	0.88	D	11,000	10,000	1.10	F(0)
405-8		405	9.556	Wilmington Ave. to Carson St.	11,000	8,000	1.38	F(2)	9,500	8,000	1.19	F(0)	9,400	8,000	1.18	F(0)	11,400	8,000	1.43	F(2)
405-9		405	10.541	Carson St. to Avalon Blvd.	10,800	8,000	1.35	F(1)	9,300	8,000	1.16	F(0)	9,300	8,000	1.16	F(0)	11,200	8,000	1.40	F(2)
405-10	1067	405	11.224	Avalon Blvd. to Jct. Rte. 110	11,600	10,000	1.16	F(0)	10,000	10,000	1.00	E	9,900	10,000	0.99	E	12,000	10,000	1.20	F(0)
405-11		405	12.97	Jct. Rte. 110 to Vermont Ave.	11,400	10,000	1.14	F(0)	9,900	10,000	0.99	E	8,500	8,000	1.06	F(0)	10,500	8,000	1.31	F(1)
405-12		405	13.28	Vermont Ave. to Normandie Ave.	11,900	12,000	0.99	E	10,400	12,000	0.87	D	8,900	10,000	0.89	D	11,000	10,000	1.10	F(0)
405-13		405	13.826	Normandie Ave. to Western Ave.	11,200	10,000	1.12	F(0)	9,700	10,000	0.97	E	8,300	8,000	1.04	F(0)	10,300	8,000	1.29	F(1)
405-14		405	14.398	Western Ave. to Crenshaw Blvd.	10,700	8,000	1.34	F(1)	9,300	8,000	1.16	F(0)	8,000	8,000	1.00	E	9,900	8,000	1.24	F(0)
405-15		405	15.447	Crenshaw Blvd. to Artesia Blvd.	10,500	8,000	1.31	F(1)	9,100	8,000	1.14	F(0)	7,800	8,000	0.98	E	9,700	8,000	1.21	F(0)
405-16		405	16.573	Artesia Blvd. to Hawthorne Blvd.	10,600	10,000	1.06	F(0)	9,200	10,000	0.92	D	7,900	8,000	0.99	E	9,800	8,000	1.23	F(0)
405-17		405	17.589	Hawthorne Blvd. to Inglewood Ave.	11,100	10,000	1.11	F(0)	9,700	10,000	0.97	E	8,300	8,000	1.04	F(0)	10,200	8,000	1.28	F(1)
405-18	1068	405	18.233	Inglewood Ave. to Rosecrans Ave.	11,600	10,000	1.16	F(0)	10,100	10,000	1.01	F(0)	8,700	10,000	0.87	D	10,700	10,000	1.07	F(0)
710-1		710	12.97	Jct. Rte. 91 to Alondra Blvd.	11,400	12,000	0.95	E	17,700	12,000	1.48	F(3)	11,100	12,000	0.93	D	8,900	12,000	0.74	C
710-2		710	13.945	Alondra Blvd. to Jct. Rte. 105	11,800	12,000	0.98	E	18,300	12,000	1.53	F(3)	11,500	12,000	0.96	E	9,200	12,000	0.77	C

Note: D/C is demand-to-capacity ratio.

Interim Year (2025) Plus Project Conditions

Traffic volumes for the Interim Year (2025) Plus Project Conditions were developed by adding the traffic from development of a portion of the University Village and the projected increase in student enrollment to Interim Year 2025 No Project Conditions. Please see **Table 3.9-9**, Interim Year 2025 Trip Generation, for the specific vehicle trip generation used for the analysis.

Study Area Intersections

The results of the intersection LOS analysis are summarized in **Table 3.9-26**, Interim Year (2025) Plus Project Intersection LOS, and **Table 3.9-27**, Interim Year (2025) Plus Project Intersection Significant Impacts. As shown on the tables, the LOS for each intersection

under Plus Project Conditions was compared to the Interim Year (2025) No Project Conditions, with resulting significant impact determinations made. The results show that the proposed project would result in significant direct or cumulative impacts at the following 10 study area intersections:

- No. 1 — Victoria St./Drive D (AM peak hour)
- No. 3 — Victoria St./Birchknoll Dr. (PM peak hour)
- No. 5 — Central Ave./Charles Willard St. (PM peak hour)
- No. 6 — Central Ave./Project Driveway/Beachey Pl. (AM and PM peak hours)
- No. 13 — Avalon Blvd./Victoria St. (PM peak hour)
- No. 14 — Central Ave./Artesia Blvd. WB (PM peak hour)
- No. 15 — Central Ave./Albertoni St./Artesia Blvd. EB (AM and PM peak hours)
- No. 20 — I-110 SB Off-Ramp/190th St. (AM and PM peak hours)
- No. 22 — Figueroa St./190th St./Victoria St. (AM and PM peak hours)
- No. 24 — Main St./Victoria St. (PM peak hour)

Table 3.9-26
Interim Year (2025) Plus Project Intersection LOS

Study ID	Intersection Name	Control Type	AM Peak Hour		PM Peak Hour	
			V/C Ratio or Delay	LOS (ICU or HCM)	V/C Ratio or Delay	LOS (ICU or HCM)
1	Victoria St./Drive D	TWSC	94.3	**F**	>180	**F**
2	Victoria St./Tamcliff Ave.	Signalized	0.559	A	0.728	C
3	Victoria St./Birchknoll Dr.	Signalized	0.806	D	1.025	**F**
4	Victoria St./Project Service Rd.	TWSC	11.3	B	14.9	B
5	Central Ave./Charles Willard St.	TWSC	>180	**F**	>180	**F**
6	Central Ave./Beachey Pl.	TWSC	96.6	**F**	>180	**F**
7	Central Ave./Glenn Curtiss St.	Signalized	0.653	B	0.7	B
8	University Dr./Birchknoll Dr. Ext.	N/A	N/A	N/A	N/A	N/A
9	University Dr./Toro Center Dr.	TWSC	14.4	B	16.7	C
10	Albertoni St./SR 91 EB Ramps	Signalized	0.657	B	0.831	D
11	Avalon Blvd./SR 91 WB On-Ramp	Signalized	0.524	A	0.529	A
12	Avalon Blvd./Albertoni St.	Signalized	0.629	B	0.842	D
13	Avalon Blvd./Victoria St.	Signalized	0.755	C	1.029	**F**
14	Central Ave./Artesia Blvd. WB	Signalized	0.889	D	0.922	**E**
15	Central Ave./Albertoni St./Artesia Blvd. EB	Signalized	1.053	**F**	0.998	**E**
16	Central Ave./Victoria St.	Signalized	0.838	D	0.847	D
17	Wilmington Ave./Artesia Blvd. WB	Signalized	0.734	C	0.746	C
18	Wilmington Ave./Artesia Blvd. EB	Signalized	0.734	C	0.749	C
19	Wilmington Ave./Victoria St.	Signalized	0.551	A	0.582	A
20	I-110 SB Off-Ramp/190th St.	Signalized	1.169	**F**	1.175	**F**
21	I-110 NB On-Ramp/190th St.	Signalized	0.6	A	0.797	C
22	Figueroa St./190th St./Victoria St.	Signalized	0.9	**E**	1.036	**F**
23	Broadway/Victoria St.	Signalized	0.694	B	0.847	D
24	Main St./Victoria St.	Signalized	0.766	C	1.022	**F**
25	Avalon Blvd./University Dr.	Signalized	0.483	A	0.672	B
26	Avalon Blvd./Del Amo Blvd.	Signalized	0.871	D	0.963	**E**
27	Avalon Blvd./I-405 NB Ramps	Signalized	0.509	A	0.516	A
28	Avalon Blvd./I-405 SB Ramps	Signalized	0.595	A	0.565	A
29	Central Ave./University Dr.	Signalized	0.741	C	0.619	B
30	Wilmington Ave./University Dr.	Signalized	0.635	B	0.729	C
31	Central Ave./Del Amo Blvd.	Signalized	0.821	D	0.751	C
32	Wilmington Ave./Del Amo Blvd.	Signalized	0.707	C	0.744	C
33	W. Artesia Blvd./Crenshaw Blvd.	Signalized	0.95	**E**	1.019	**F**
34	W. 190th St./S. Western Ave.	Signalized	0.841	D	0.83	D
35	W. Artesia Blvd./Vermont Ave.	Signalized	0.858	D	1.062	**F**
36	Alameda St./Compton Blvd.	Signalized	0.691	B	0.738	C
37	Alameda St./SR 91 EB Ramps	Signalized	0.588	A	0.794	C

*Intersection LOS was calculated using HCM 2000 Delay Method, because ICU cannot be calculated for TWSC intersections.

Source: TIS (February 2019)

Table 3.9-27
Interim Year (2025) Plus Project Intersection Significant Impacts

Study ID	Intersection Name	Control Type	2025 Scenarios					
			AM Peak Hour			PM Peak Hour		
			No Project LOS	Plus Project LOS	Project Has Significant Impact?	No Project LOS	Plus Project LOS	Project Has Significant Impact?
1	Victoria St./Drive D	TWSC	D	**F**	**Yes**	**F**	**F**	**Yes**
2	Victoria St./Tamcliff Ave.	Signalized	A	A	No	B	C	No
3	Victoria St./Birchknoll Dr.	Signalized	A	D	No	B	**F**	**Yes**
4	Victoria St./Project Service Rd.	TWSC	N/A	B	No	N/A	B	No
5	Central Ave./Charles Willard St.	TWSC	**E**	**F**	**Yes**	D	**F**	**Yes**
6	Central Ave./Beachey Pl.	TWSC	C	**F**	**Yes**	C	**F**	**Yes**
7	Central Ave./Glenn Curtiss St.	Signalized	A	B	No	A	B	No
8	University Dr./Birchknoll Dr. Ext.	N/A	N/A	N/A	N/A	N/A	N/A	N/A
9	University Dr./Toro Center Dr.	TWSC	B	B	No	B	C	No
10	Albertoni St./SR 91 EB Ramps	Signalized	B	B	No	C	D	No
11	Avalon Blvd./SR 91 WB On-Ramp	Signalized	A	A	No	A	A	No
12	Avalon Blvd./Albertoni St.	Signalized	B	B	No	D	D	No
13	Avalon Blvd./Victoria St.	Signalized	B	C	No	D	**F**	**Yes**
14	Central Ave./Artesia Blvd. WB	Signalized	C	D	No	C	**E**	**Yes**
15	Central Ave./Albertoni St./Artesia Blvd. EB	Signalized	D	**F**	**Yes**	C	**E**	**Yes**
16	Central Ave./Victoria St.	Signalized	A	D	No	B	D	No
17	Wilmington Ave./Artesia Blvd. WB	Signalized	C	C	No	C	C	No
18	Wilmington Ave./Artesia Blvd. EB	Signalized	C	C	No	C	C	No
19	Wilmington Ave./Victoria St.	Signalized	A	A	No	A	A	No
20	I-110 SB Off-Ramp/190th St.	Signalized	**F**	**F**	**Yes**	**F**	**F**	**Yes**
21	I-110 NB On-Ramp/190th St.	Signalized	A	A	No	C	C	No
22	Figueroa St./190th St./Victoria St.	Signalized	D	**E**	**Yes**	D	**F**	**Yes**
23	Broadway/Victoria St.	Signalized	A	B	No	C	D	No
24	Main St./Victoria St.	Signalized	B	C	No	**E**	**F**	**Yes**
25	Avalon Blvd./University Dr.	Signalized	A	A	No	B	B	No
26	Avalon Blvd./Del Amo Blvd.	Signalized	D	D	No	**E**	**E**	No
27	Avalon Blvd./I-405 NB Ramps	Signalized	A	A	No	A	A	No
28	Avalon Blvd./I-405 SB Ramps	Signalized	A	A	No	A	A	No
29	Central Ave./University Dr.	Signalized	A	C	No	A	B	No
30	Wilmington Ave./University Dr.	Signalized	A	B	No	A	C	No
31	Central Ave./Del Amo Blvd.	Signalized	C	D	No	C	C	No
32	Wilmington Ave./Del Amo Blvd.	Signalized	B	C	No	C	C	No
33	W. Artesia Blvd./Crenshaw Blvd.	Signalized	**E**	**E**	No	**F**	**F**	No
34	W. 190th St./S. Western Ave.	Signalized	D	D	No	C	D	No
35	W. Artesia Blvd./Vermont Ave.	Signalized	D	D	No	**F**	**F**	No
36	Alameda St./Compton Blvd.	Signalized	B	B	No	C	C	No
37	Alameda St./SR 91 EB Ramps	Signalized	A	A	No	C	C	No

Source: TIS (February 2019)

Study Area Freeway Segments

The study area freeway segment LOS are shown in **Table 3.9-28**, Interim Year (2025) Plus Project Freeway Segment LOS, and **Table 3.9-29**, Interim Year (2025) Plus Project Freeway Significant Impacts. The LOS for each segment under Plus Project Conditions was compared to the Interim Year (2025) No Project Conditions, with significant impact determinations made. The results show that the proposed project would result in significant impacts at the following freeway segments

- SR-91 eastbound, Avalon Blvd. to Central Ave., during the PM peak hour
- SR-91 eastbound, Central Ave. to Wilmington Ave., during the PM peak hour
- SR-91 eastbound, Wilmington Ave. to Alameda St., during the PM peak hour
- SR-91 eastbound, Alameda St. to Alameda St./Santa Fe Ave., during the PM peak hour
- SR-91 eastbound, Alameda St./Santa Fe Ave. to Long Beach Blvd., during the PM peak hour
- SR-91 eastbound, Long Beach Blvd. to Jct. Rte. 710, during the PM peak hour
- I-110 northbound, Sepulveda Blvd. to Carson St., during the AM peak hour
- I-110 northbound, Carson St. to Torrance/Del Amo Blvd., during both peak hours
- I-110 northbound, Torrance/Del Amo Blvd. to Jct. Rte. 405, during both peak hours
- I-110 northbound, Jct. Rte. 405 to Jct. Rte. 91, during the AM peak hour
- I-405 northbound, Carson St. to Avalon Blvd., during both peak hours
- I-405 northbound, Avalon Blvd. to Jct. Rte. 110, during the PM peak hour
- I-405 northbound, Jct. Rte. 110 to Vermont Ave., during the PM peak hour
- I-405 northbound, Normandie Ave. to Western Ave., during the PM peak hour
- I-405 northbound, Western Ave. to Crenshaw Blvd., during the PM peak hour
- I-405 northbound, Crenshaw Blvd. to Artesia Blvd., during the PM peak hour
- SR-91 westbound, Avalon Blvd. to Central Ave., during the AM peak hour
- SR-91 westbound, Central Ave. to Wilmington Ave., during the AM peak hour
- SR-91 westbound, Wilmington Ave. to Alameda St., during the AM peak hour
- SR-91 westbound, Alameda St. to Alameda St./Santa Fe Ave., during the AM peak hour
- SR-91 westbound, Long Beach Blvd. to Jct. Rte. 710, during the AM peak hour
- I-110 southbound, Sepulveda Blvd. to Carson St., during the PM peak hour
- I-110 southbound, Carson St. to Torrance/Del Amo Blvd., during the PM peak hour

- I-110 southbound, Torrance/Del Amo Blvd. to Jct. Rte. 405, during both peak hours
- I-110 southbound, Jct. Rte. 405 to Jct. Rte. 91, during both peak hours
- I-110 southbound, Redondo Beach Blvd. to Rosecrans Ave., during the AM peak hour
- I-110 southbound, Rosecrans Ave. to El Segundo Blvd., during the AM peak hour
- I-110 southbound, Century Blvd. to Manchester Ave., during the AM peak hour
- I-110 southbound, Slauson Ave. to 51st St., during the AM peak hour
- I-405 southbound, Carson St. to Avalon Blvd., during the PM peak hour
- I-405 southbound, Avalon Blvd. to Jct. Rte. 110, during the AM peak hour
- I-405 southbound, Jct. Rte. 110 to Vermont Ave., during both peak hours
- I-405 southbound, Western Ave. to Crenshaw Blvd., during the AM peak hour

Table 3.9-28
Interim Year (2025) Plus Project Freeway Segment LOS

ID	CMP Station	Fwy Rte	Post Mile	Location	Northbound/Eastbound								Southbound/Westbound							
					AM Peak Hour				PM Peak Hour				AM Peak Hour				PM Peak Hour			
					Demand	Capacity	D/C	LOS	Demand	Capacity	D/C	LOS	Demand	Capacity	D/C	LOS	Demand	Capacity	D/C	LOS
91-1		91	6.344	Jct. Rte. 110 to Avalon Blvd.	7,060	12,000	0.59	C	14,530	12,000	1.21	F(0)	9,370	4,000	2.34	F(3)	6,340	4,000	1.59	F(3)
91-2		91	7.426	Avalon Blvd. to Central Ave.	7,280	10,000	0.73	C	14,870	10,000	1.49	F(3)	9,650	10,000	0.97	E	6,600	10,000	0.66	C
91-3		91	8.435	Central Ave. to Wilmington Ave.	7,400	10,000	0.74	C	15,120	10,000	1.51	F(3)	9,940	10,000	0.99	E	6,750	10,000	0.68	C
91-4		91	9.162	Wilmington Ave. to Alameda St.	7,700	10,000	0.77	C	15,720	10,000	1.57	F(3)	10,240	10,000	1.02	F(0)	6,950	10,000	0.70	C
91-5		91	10.271	Alameda St. to Alameda St./Santa Fe Ave.	7,990	8,000	1.00	E	16,400	8,000	2.05	F(3)	10,740	8,000	1.34	F(1)	7,250	8,000	0.91	D
91-6	1033	91	10.41	Alameda St./Santa Fe Ave. to Long Beach Blvd.	8,290	12,000	0.69	C	17,000	12,000	1.42	F(2)	11,150	12,000	0.93	D	7,550	12,000	0.63	C
91-7		91	11.096	Long Beach Blvd. to Jct. Rte. 710	8,290	12,000	0.69	C	17,000	12,000	1.42	F(2)	11,130	10,000	1.11	F(0)	7,550	10,000	0.76	C
91-8		91	11.681	Jct. Rte. 710 to Cherry Ave.	8,450	10,000	0.85	D	12,110	10,000	1.21	F(0)	13,630	10,000	1.36	F(2)	9,580	10,000	0.96	E
91-9	1034	91	13.094	Cherry Ave. to Paramount Blvd.	8,550	10,000	0.86	D	12,310	10,000	1.23	F(0)	13,820	12,000	1.15	F(0)	9,680	12,000	0.81	D
91-10		91	13.594	Paramount Blvd. to Downey Ave.	8,350	10,000	0.84	D	11,900	10,000	1.19	F(0)	13,420	10,000	1.34	F(1)	9,470	10,000	0.95	E
91-11		91	14.103	Downey Ave. to Jct. Rte. 19	8,340	12,000	0.70	C	11,900	12,000	0.99	E	13,310	10,000	1.33	F(1)	9,370	10,000	0.94	E
91-12		91	14.618	Jct. Rte. 19 to Clark Ave.	7,640	10,000	0.76	C	10,990	10,000	1.10	F(0)	12,400	8,000	1.55	F(3)	8,660	8,000	1.08	F(0)
91-13		91	15.105	Clark Ave. to Bellflower Blvd.	8,140	12,000	0.68	C	11,590	12,000	0.97	E	13,000	10,000	1.30	F(1)	9,160	10,000	0.92	D
91-14		91	15.614	Bellflower Blvd. to Jct. Rte. 605	8,040	12,000	0.67	C	11,480	12,000	0.96	E	12,890	10,000	1.29	F(1)	9,060	10,000	0.91	D
110-1	1045	110	1.23	Channel St. to C St.	4,610	8,000	0.58	C	3,300	8,000	0.41	B	3,670	8,000	0.46	B	4,420	8,000	0.55	C
110-2		110	2.771	C St. to Anaheim St.	4,810	10,000	0.48	B	3,500	10,000	0.35	A	3,880	8,000	0.49	B	4,630	8,000	0.58	C
110-3		110	3.264	Anaheim St. to Jct. Rte. 1	5,220	10,000	0.52	B	3,710	10,000	0.37	B	4,180	10,000	0.42	B	5,040	10,000	0.50	B
110-4		110	4.061	Jct. Rte. 1 to Sepulveda Blvd.	7,280	8,000	0.91	D	5,260	8,000	0.66	C	5,810	8,000	0.73	C	7,080	8,000	0.89	D
110-5		110	5.451	Sepulveda Blvd. to Carson St.	9,410	8,000	1.18	F(0)	6,780	8,000	0.85	D	7,530	8,000	0.94	E	9,220	8,000	1.15	F(0)
110-6		110	7.016	Carson St. to Torrance/Del Amo Blvd.	10,810	8,000	1.35	F(1)	7,880	8,000	0.99	E	8,740	8,000	1.09	F(0)	10,630	8,000	1.33	F(1)
110-7		110	8.028	Torrance/Del Amo Blvd. to Jct. Rte. 405	11,410	8,000	1.43	F(2)	8,280	8,000	1.04	F(0)	9,240	8,000	1.16	F(0)	11,230	8,000	1.40	F(2)
110-8		110	8.775	Jct. Rte. 405 to Jct. Rte. 91	14,010	12,000	1.17	F(0)	10,080	12,000	0.84	D	11,240	8,000	1.41	F(2)	13,730	8,000	1.72	F(3)
110-9		110	9.87	Jct. Rte. 91 to Redondo Beach Blvd.	9,200	12,000	0.77	C	9,400	12,000	0.78	D	10,110	12,000	0.84	D	9,740	12,000	0.81	D
110-10		110	11.239	Redondo Beach Blvd. to Rosecrans Ave.	9,500	11,000	0.86	D	9,800	11,000	0.89	D	10,510	11,000	0.96	E	10,040	11,000	0.91	D
110-11		110	11.891	Rosecrans Ave. to El Segundo Blvd.	9,900	11,000	0.90	D	10,190	11,000	0.93	D	11,010	11,000	1.00	E	10,540	11,000	0.96	E
110-12		110	12.898	El Segundo Blvd. to Jct. Rte. 105	10,090	11,000	0.92	D	10,380	11,000	0.94	E	11,210	13,000	0.86	D	10,740	13,000	0.83	D
110-13		110	13.82	Jct. Rte. 105 to Century Blvd.	11,280	14,000	0.81	D	11,560	14,000	0.83	D	12,400	14,000	0.89	D	11,940	14,000	0.85	D
110-14		110	14.967	Century Blvd. to Manchester Ave.	12,080	12,000	1.01	F(0)	12,360	12,000	1.03	F(0)	13,300	12,000	1.11	F(0)	12,840	12,000	1.07	F(0)
110-15	1046	110	15.976	Manchester Ave. to Florence Ave.	11,780	12,000	0.98	E	12,050	12,000	1.00	E	12,970	12,000	1.08	F(0)	12,420	12,000	1.04	F(0)
110-16		110	16.981	Florence Ave. to Gage Ave.	12,170	12,000	1.01	F(0)	12,430	12,000	1.04	F(0)	13,060	12,000	1.09	F(0)	12,610	12,000	1.05	F(0)
110-17	1047	110	17.514	Gage Ave. to Slauson Ave.	12,060	12,000	1.01	F(0)	12,320	12,000	1.03	F(0)	13,060	12,000	1.09	F(0)	12,510	12,000	1.04	F(0)
110-18		110	17.98	Slauson Ave. to 51st St.	11,660	10,000	1.17	F(0)	11,820	10,000	1.18	F(0)	12,550	10,000	1.26	F(1)	12,000	10,000	1.20	F(0)
110-19		110	18.495	51st St. to Vernon Ave.	11,860	10,000	1.19	F(0)	12,120	10,000	1.21	F(0)	12,750	12,000	1.06	F(0)	12,300	12,000	1.03	F(0)
110-20		110	18.998	Vernon Ave. to Martin Luther King Jr. Blvd.	11,860	12,000	0.99	E	12,110	12,000	1.01	F(0)	12,740	12,000	1.06	F(0)	12,300	12,000	1.03	F(0)
110-21		110	19.502	Martin Luther King Jr. Blvd. to Exposition Blvd.	10,750	12,000	0.90	D	10,910	12,000	0.91	D	11,530	10,000	1.15	F(0)	11,090	10,000	1.11	F(0)
110-22		110	19.996	Exposition Blvd. to Jct. Rte. 10	10,340	12,000	0.86	D	10,590	12,000	0.88	D	11,240	12,000	0.94	E	10,800	12,000	0.90	D
405-1		405	3.324	Lakewood Blvd. to Cherry Ave.	12,570	10,000	1.26	F(1)	10,750	10,000	1.08	F(0)	9,440	10,000	0.94	E	11,770	10,000	1.18	F(0)
405-2		405	4.879	Cherry Ave. to Orange Ave.	13,280	10,000	1.33	F(1)	11,260	10,000	1.13	F(0)	9,840	8,000	1.23	F(0)	12,370	8,000	1.55	F(3)
405-3		405	5.388	Orange Ave. to Atlantic Ave.	13,780	8,000	1.72	F(3)	11,760	8,000	1.47	F(3)	10,240	8,000	1.28	F(1)	12,880	8,000	1.61	F(3)
405-4		405	6.076	Atlantic Ave. to Long Beach Blvd	13,590	8,000	1.70	F(3)	11,560	8,000	1.45	F(2)	10,140	12,000	0.85	D	12,690	12,000	1.06	F(0)
405-5		405	6.34	Long Beach Blvd to Jct. Rte. 710	13,500	12,000	1.13	F(0)	11,470	12,000	0.96	E	10,050	10,000	1.01	F(0)	12,590	10,000	1.26	F(1)
405-6	1066	405	7.596	Jct. Rte. 710 to Alameda St.	12,330	10,000	1.23	F(0)	10,490	10,000	1.05	F(0)	9,160	10,000	0.92	D	11,520	10,000	1.15	F(0)
405-7		405	8.784	Alameda St. to Wilmington Ave.	11,940	10,000	1.19	F(0)	10,100	10,000	1.01	F(0)	8,870	10,000	0.89	D	11,140	10,000	1.11	F(0)
405-8		405	9.556	Wilmington Ave. to Carson St.	11,140	8,000	1.39	F(2)	9,600	8,000	1.20	F(0)	9,470	8,000	1.18	F(0)	11,540	8,000	1.44	F(2)
405-9		405	10.541	Carson St. to Avalon Blvd.	10,940	8,000	1.37	F(2)	9,400	8,000	1.18	F(0)	9,370	8,000	1.17	F(0)	11,340	8,000	1.42	F(2)
405-10	1067	405	11.224	Avalon Blvd. to Jct. Rte. 110	11,700	10,000	1.17	F(0)	10,170	10,000	1.02	F(0)	10,060	10,000	1.01	F(0)	12,130	10,000	1.21	F(0)
405-11		405	12.97	Jct. Rte. 110 to Vermont Ave.	11,500	10,000	1.15	F(0)	10,070	10,000	1.01	F(0)	8,660	8,000	1.08	F(0)	10,630	8,000	1.33	F(1)
405-12		405	13.28	Vermont Ave. to Normandie Ave.	12,000	12,000	1.00	E	10,570	12,000	0.88	D	9,040	10,000	0.90	D	11,120	10,000	1.11	F(0)
405-13		405	13.826	Normandie Ave. to Western Ave.	11,300	10,000	1.13	F(0)	9,870	10,000	0.99	E	8,420	8,000	1.05	F(0)	10,400	8,000	1.30	F(1)
405-14		405	14.398	Western Ave. to Crenshaw Blvd.	10,800	8,000	1.35	F(1)	9,470	8,000	1.18	F(0)	8,120	8,000	1.02	F(0)	10,000	8,000	1.25	F(0)
405-15		405	15.447	Crenshaw Blvd. to Artesia Blvd.	10,580	8,000	1.32	F(1)	9,240	8,000	1.16	F(0)	7,910	8,000	0.99	E	9,790	8,000	1.22	F(0)
405-16		405	16.573	Artesia Blvd. to Hawthorne Blvd.	10,670	10,000	1.07	F(0)	9,320	10,000	0.93	D	7,990	8,000	1.00	E	9,880	8,000	1.24	F(0)
405-17		405	17.589	Hawthorne Blvd. to Inglewood Ave.	11,160	10,000	1.12	F(0)	9,810	10,000	0.98	E	8,390	8,000	1.05	F(0)	10,270	8,000	1.28	F(1)
405-18	1068	405	18.233	Inglewood Ave. to Rosecrans Ave.	11,650	10,000	1.17	F(0)	10,190	10,000	1.02	F(0)	8,770	10,000	0.88	D	10,760	10,000	1.08	F(0)
710-1		710	12.97	Jct. Rte. 91 to Alondra Blvd.	11,440	12,000	0.95	E	17,780	12,000	1.48	F(3)	11,210	12,000	0.93	D	8,970	12,000	0.75	C
710-2		710	13.945	Alondra Blvd. to Jct. Rte. 105	11,830	12,000	0.99	E	18,370	12,000	1.53	F(3)	11,600	12,000	0.97	E	9,260	12,000	0.77	C

Note: D/C is demand-to-capacity ratio.

Table 3.9-29
Interim Year (2025) Plus Project Freeway Significant Impacts

Northbound/Eastbound

ID	CMP Station	Fwy Rte	Post Mile	Location	2025 No Project				2025 Plus Project				2025 Increase in D/C Ratio with Project		2025 Project Has Significant Impact?	
					AM Peak Hour		PM Peak Hour		AM Peak Hour		PM Peak Hour					
					D/C	LOS	D/C	LOS	D/C	LOS	D/C	LOS	AM	PM	AM	PM
91-1		91	6.344	Jct. Rte. 110 to Avalon Blvd.	0.58	C	1.20	F(0)	0.59	C	1.21	F(0)	0.01	0.01	No	No
91-2		91	7.426	Avalon Blvd. to Central Ave.	0.72	C	1.47	F(3)	0.73	C	1.49	F(3)	0.01	0.02	No	Yes
91-3		91	8.435	Central Ave. to Wilmington Ave.	0.73	C	1.49	F(3)	0.74	C	1.51	F(3)	0.01	0.02	No	Yes
91-4		91	9.162	Wilmington Ave. to Alameda St.	0.76	C	1.55	F(3)	0.77	C	1.57	F(3)	0.01	0.02	No	Yes
91-5		91	10.271	Alameda St. to Alameda St./Santa F	0.99	E	2.03	F(3)	1.00	E	2.05	F(3)	0.01	0.02	No	Yes
91-6	1033	91	10.41	Alameda St./Santa Fe Ave. to Long	0.68	C	1.40	F(2)	0.69	C	1.42	F(2)	0.01	0.02	No	Yes
91-7		91	11.096	Long Beach Blvd. to Jct. Rte. 710	0.68	C	1.40	F(2)	0.69	C	1.42	F(2)	0.01	0.02	No	Yes
91-8		91	11.681	Jct. Rte. 710 to Cherry Ave.	0.84	D	1.20	F(0)	0.85	D	1.21	F(0)	0.01	0.01	No	No
91-9	1034	91	13.094	Cherry Ave. to Paramount Blvd.	0.85	D	1.22	F(0)	0.86	D	1.23	F(0)	0.01	0.01	No	No
91-10		91	13.594	Paramount Blvd. to Downey Ave.	0.83	D	1.18	F(0)	0.84	D	1.19	F(0)	0.01	0.01	No	No
91-11		91	14.103	Downey Ave. to Jct. Rte. 19	0.69	C	0.98	E	0.70	C	0.99	E	0.01	0.01	No	No
91-12		91	14.618	Jct. Rte. 19 to Clark Ave.	0.76	C	1.09	F(0)	0.76	C	1.10	F(0)	0.00	0.01	No	No
91-13		91	15.105	Clark Ave. to Bellflower Blvd.	0.68	C	0.96	E	0.68	C	0.97	E	0.00	0.01	No	No
91-14		91	15.614	Bellflower Blvd. to Jct. Rte. 605	0.67	C	0.95	E	0.67	C	0.96	E	0.00	0.01	No	No
110-1	1045	110	1.23	Channel St. to C St.	0.56	C	0.40	B	0.58	C	0.41	B	0.02	0.01	No	No
110-2		110	2.771	C St. to Anaheim St.	0.47	B	0.34	A	0.48	B	0.35	A	0.01	0.01	No	No
110-3		110	3.264	Anaheim St. to Jct. Rte. 1	0.51	B	0.36	B	0.52	B	0.37	B	0.01	0.01	No	No
110-4		110	4.061	Jct. Rte. 1 to Sepulveda Blvd.	0.89	D	0.64	C	0.91	D	0.66	C	0.02	0.02	No	No
110-5		110	5.451	Sepulveda Blvd. to Carson St.	1.15	F(0)	0.83	D	1.18	F(0)	0.85	D	0.03	0.02	Yes	No
110-6		110	7.016	Carson St. to Torrance/Del Amo Blvd	1.33	F(1)	0.96	E	1.35	F(1)	0.99	E	0.02	0.03	Yes	Yes
110-7		110	8.028	Torrance/Del Amo Blvd. to Jct. Rte.	1.40	F(2)	1.01	F(0)	1.43	F(2)	1.04	F(0)	0.03	0.03	Yes	Yes
110-8		110	8.775	Jct. Rte. 405 to Jct. Rte. 91	1.15	F(0)	0.83	D	1.17	F(0)	0.84	D	0.02	0.01	Yes	No
110-9		110	9.87	Jct. Rte. 91 to Redondo Beach Blvd.	0.76	C	0.77	C	0.77	C	0.78	D	0.01	0.01	No	No
110-10		110	11.239	Redondo Beach Blvd. to Rosecrans	0.85	D	0.87	D	0.86	D	0.89	D	0.01	0.02	No	No
110-11		110	11.891	Rosecrans Ave. to El Segundo Blvd.	0.89	D	0.91	D	0.90	D	0.93	D	0.01	0.02	No	No
110-12		110	12.898	El Segundo Blvd. to Jct. Rte. 105	0.91	D	0.93	D	0.92	D	0.94	E	0.01	0.01	No	No
110-13		110	13.82	Jct. Rte. 105 to Century Blvd.	0.80	D	0.81	D	0.81	D	0.83	D	0.01	0.02	No	No
110-14		110	14.967	Century Blvd. to Manchester Ave.	1.00	E	1.02	F(0)	1.01	F(0)	1.03	F(0)	0.01	0.01	No	No
110-15	1046	110	15.976	Manchester Ave. to Florence Ave.	0.98	E	0.99	E	0.98	E	1.00	E	0.00	0.01	No	No
110-16		110	16.981	Florence Ave. to Gage Ave.	1.01	F(0)	1.03	F(0)	1.01	F(0)	1.04	F(0)	0.00	0.01	No	No
110-17	1047	110	17.514	Gage Ave. to Slauson Ave.	1.00	E	1.02	F(0)	1.01	F(0)	1.03	F(0)	0.01	0.01	No	No
110-18		110	17.98	Slauson Ave. to 51st St.	1.16	F(0)	1.17	F(0)	1.17	F(0)	1.18	F(0)	0.01	0.01	No	No
110-19		110	18.495	51st St. to Vernon Ave.	1.18	F(0)	1.20	F(0)	1.19	F(0)	1.21	F(0)	0.01	0.01	No	No
110-20		110	18.998	Vernon Ave. to Martin Luther King Jr.	0.98	E	1.00	E	0.99	E	1.01	F(0)	0.01	0.01	No	No
110-21		110	19.502	Martin Luther King Jr. Blvd. to Expos	0.89	D	0.90	D	0.90	D	0.91	D	0.01	0.01	No	No
110-22		110	19.996	Exposition Blvd. to Jct. Rte. 10	0.86	D	0.88	D	0.86	D	0.88	D	0.00	0.00	No	No
405-1		405	3.324	Lakewood Blvd. to Cherry Ave.	1.25	F(0)	1.07	F(0)	1.26	F(1)	1.08	F(0)	0.01	0.01	No	No
405-2		405	4.879	Cherry Ave. to Orange Ave.	1.32	F(1)	1.12	F(0)	1.33	F(1)	1.13	F(0)	0.01	0.01	No	No
405-3		405	5.388	Orange Ave. to Atlantic Ave.	1.71	F(3)	1.46	F(3)	1.72	F(3)	1.47	F(3)	0.01	0.01	No	No
405-4		405	6.076	Atlantic Ave. to Long Beach Blvd	1.69	F(3)	1.44	F(2)	1.70	F(3)	1.45	F(2)	0.01	0.01	No	No
405-5		405	6.34	Long Beach Blvd to Jct. Rte. 710	1.12	F(0)	0.95	E	1.13	F(0)	0.96	E	0.01	0.01	No	No
405-6	1066	405	7.596	Jct. Rte. 710 to Alameda St.	1.22	F(0)	1.04	F(0)	1.23	F(0)	1.05	F(0)	0.01	0.01	No	No
405-7		405	8.784	Alameda St. to Wilmington Ave.	1.18	F(0)	1.00	E	1.19	F(0)	1.01	F(0)	0.01	0.01	No	No
405-8		405	9.556	Wilmington Ave. to Carson St.	1.38	F(2)	1.19	F(0)	1.39	F(2)	1.20	F(0)	0.01	0.01	No	No
405-9		405	10.541	Carson St. to Avalon Blvd.	1.35	F(1)	1.16	F(0)	1.37	F(2)	1.18	F(0)	0.02	0.02	Yes	Yes
405-10	1067	405	11.224	Avalon Blvd. to Jct. Rte. 110	1.16	F(0)	1.00	E	1.17	F(0)	1.02	F(0)	0.01	0.02	No	Yes
405-11		405	12.97	Jct. Rte. 110 to Vermont Ave.	1.14	F(0)	0.99	E	1.15	F(0)	1.01	F(0)	0.01	0.02	No	Yes
405-12		405	13.28	Vermont Ave. to Normandie Ave.	0.99	E	0.87	D	1.00	E	0.88	D	0.01	0.01	No	No
405-13		405	13.826	Normandie Ave. to Western Ave.	1.12	F(0)	0.97	E	1.13	F(0)	0.99	E	0.01	0.02	No	Yes
405-14		405	14.398	Western Ave. to Crenshaw Blvd.	1.34	F(1)	1.16	F(0)	1.35	F(1)	1.18	F(0)	0.01	0.02	No	Yes
405-15		405	15.447	Crenshaw Blvd. to Artesia Blvd.	1.31	F(1)	1.14	F(0)	1.32	F(1)	1.16	F(0)	0.01	0.02	No	Yes
405-16		405	16.573	Artesia Blvd. to Hawthorne Blvd.	1.06	F(0)	0.92	D	1.07	F(0)	0.93	D	0.01	0.01	No	No
405-17		405	17.589	Hawthorne Blvd. to Inglewood Ave.	1.11	F(0)	0.97	E	1.12	F(0)	0.98	E	0.01	0.01	No	No
405-18	1068	405	18.233	Inglewood Ave. to Rosecrans Ave.	1.16	F(0)	1.01	F(0)	1.17	F(0)	1.02	F(0)	0.01	0.01	No	No
710-1		710	12.97	Jct. Rte. 91 to Alondra Blvd.	0.95	E	1.48	F(3)	0.95	E	1.48	F(3)	0.00	0.00	No	No
710-2		710	13.945	Alondra Blvd. to Jct. Rte. 105	0.98	E	1.53	F(3)	0.99	E	1.53	F(3)	0.01	0.00	No	No

Note: D/C is demand-to-capacity ratio.

Table 3.9-29
Interim Year (2025) Plus Project Freeway Significant Impacts

Southbound/Westbound

ID	CMP Station	Fwy Rte	Post Mile	Location	2025 No Project				2025 Plus Project				2025 Increase in D/C Ratio with Project		2025 Project Has Significant Impact?	
					AM Peak Hour		PM Peak Hour		AM Peak Hour		PM Peak Hour					
					D/C	LOS	D/C	LOS	D/C	LOS	D/C	LOS	AM	PM	AM	PM
91-1		91	6.344	Jct. Rte. 110 to Avalon Blvd.	2.33	F(3)	1.58	F(3)	2.34	F(3)	1.59	F(3)	0.01	0.01	No	No
91-2		91	7.426	Avalon Blvd. to Central Ave.	0.95	E	0.65	C	0.97	E	0.66	C	0.02	0.01	Yes	No
91-3		91	8.435	Central Ave. to Wilmington Ave.	0.97	E	0.66	C	0.99	E	0.68	C	0.02	0.02	Yes	No
91-4		91	9.162	Wilmington Ave. to Alameda St.	1.00	E	0.68	C	1.02	F(0)	0.70	C	0.02	0.02	Yes	No
91-5		91	10.271	Alameda St. to Alameda St./Santa F	1.31	F(1)	0.89	D	1.34	F(1)	0.91	D	0.03	0.02	Yes	No
91-6	1033	91	10.41	Alameda St./Santa Fe Ave. to Long	0.91	D	0.62	C	0.93	D	0.63	C	0.02	0.01	No	No
91-7		91	11.096	Long Beach Blvd. to Jct. Rte. 710	1.09	F(0)	0.74	C	1.11	F(0)	0.76	C	0.02	0.02	Yes	No
91-8		91	11.681	Jct. Rte. 710 to Cherry Ave.	1.35	F(1)	0.95	E	1.36	F(2)	0.96	E	0.01	0.01	No	No
91-9	1034	91	13.094	Cherry Ave. to Paramount Blvd.	1.14	F(0)	0.80	D	1.15	F(0)	0.81	D	0.01	0.01	No	No
91-10		91	13.594	Paramount Blvd. to Downey Ave.	1.33	F(1)	0.94	E	1.34	F(1)	0.95	E	0.01	0.01	No	No
91-11		91	14.103	Downey Ave. to Jct. Rte. 19	1.32	F(1)	0.93	D	1.33	F(1)	0.94	E	0.01	0.01	No	No
91-12		91	14.618	Jct. Rte. 19 to Clark Ave.	1.54	F(3)	1.08	F(0)	1.55	F(3)	1.08	F(0)	0.01	0.00	No	No
91-13		91	15.105	Clark Ave. to Bellflower Blvd.	1.29	F(1)	0.91	D	1.30	F(1)	0.92	D	0.01	0.01	No	No
91-14		91	15.614	Bellflower Blvd. to Jct. Rte. 605	1.28	F(1)	0.90	D	1.29	F(1)	0.91	D	0.01	0.01	No	No
110-1	1045	110	1.23	Channel St. to C St.	0.45	B	0.54	B	0.46	B	0.55	C	0.01	0.01	No	No
110-2		110	2.771	C St. to Anaheim St.	0.48	B	0.56	C	0.49	B	0.58	C	0.01	0.02	No	No
110-3		110	3.264	Anaheim St. to Jct. Rte. 1	0.41	B	0.49	B	0.42	B	0.50	B	0.01	0.01	No	No
110-4		110	4.061	Jct. Rte. 1 to Sepulveda Blvd.	0.71	C	0.86	D	0.73	C	0.89	D	0.02	0.03	No	No
110-5		110	5.451	Sepulveda Blvd. to Carson St.	0.93	D	1.13	F(0)	0.94	E	1.15	F(0)	0.01	0.02	No	Yes
110-6		110	7.016	Carson St. to Torrance/Del Amo Blvd	1.08	F(0)	1.30	F(1)	1.09	F(0)	1.33	F(1)	0.01	0.03	No	Yes
110-7		110	8.028	Torrance/Del Amo Blvd. to Jct. Rte.	1.14	F(0)	1.38	F(2)	1.16	F(0)	1.40	F(2)	0.02	0.02	Yes	Yes
110-8		110	8.775	Jct. Rte. 405 to Jct. Rte. 91	1.39	F(2)	1.69	F(3)	1.41	F(2)	1.72	F(3)	0.02	0.03	Yes	Yes
110-9		110	9.87	Jct. Rte. 91 to Redondo Beach Blvd.	0.83	D	0.80	D	0.84	D	0.81	D	0.01	0.01	No	No
110-10		110	11.239	Redondo Beach Blvd. to Rosecrans	0.94	E	0.90	D	0.96	E	0.91	D	0.02	0.01	Yes	No
110-11		110	11.891	Rosecrans Ave. to El Segundo Blvd.	0.98	E	0.95	E	1.00	E	0.96	E	0.02	0.01	Yes	No
110-12		110	12.898	El Segundo Blvd. to Jct. Rte. 105	0.85	D	0.82	D	0.86	D	0.83	D	0.01	0.01	No	No
110-13		110	13.82	Jct. Rte. 105 to Century Blvd.	0.87	D	0.84	D	0.89	D	0.85	D	0.02	0.01	No	No
110-14		110	14.967	Century Blvd. to Manchester Ave.	1.09	F(0)	1.06	F(0)	1.11	F(0)	1.07	F(0)	0.02	0.01	Yes	No
110-15	1046	110	15.976	Manchester Ave. to Florence Ave.	1.07	F(0)	1.03	F(0)	1.08	F(0)	1.04	F(0)	0.01	0.01	No	No
110-16		110	16.981	Florence Ave. to Gage Ave.	1.08	F(0)	1.04	F(0)	1.09	F(0)	1.05	F(0)	0.01	0.01	No	No
110-17	1047	110	17.514	Gage Ave. to Slauson Ave.	1.08	F(0)	1.03	F(0)	1.09	F(0)	1.04	F(0)	0.01	0.01	No	No
110-18		110	17.98	Slauson Ave. to 51st St.	1.24	F(0)	1.19	F(0)	1.26	F(1)	1.20	F(0)	0.02	0.01	Yes	No
110-19		110	18.495	51st St. to Vernon Ave.	1.05	F(0)	1.02	F(0)	1.06	F(0)	1.03	F(0)	0.01	0.01	No	No
110-20		110	18.998	Vernon Ave. to Martin Luther King Jr.	1.05	F(0)	1.02	F(0)	1.06	F(0)	1.03	F(0)	0.01	0.01	No	No
110-21		110	19.502	Martin Luther King Jr. Blvd. to Expos	1.14	F(0)	1.10	F(0)	1.15	F(0)	1.11	F(0)	0.01	0.01	No	No
110-22		110	19.996	Exposition Blvd. to Jct. Rte. 10	0.93	D	0.89	D	0.94	E	0.90	D	0.01	0.01	No	No
405-1		405	3.324	Lakewood Blvd. to Cherry Ave.	0.94	E	1.17	F(0)	0.94	E	1.18	F(0)	0.00	0.01	No	No
405-2		405	4.879	Cherry Ave. to Orange Ave.	1.23	F(0)	1.54	F(3)	1.23	F(0)	1.55	F(3)	0.00	0.01	No	No
405-3		405	5.388	Orange Ave. to Atlantic Ave.	1.28	F(1)	1.60	F(3)	1.28	F(1)	1.61	F(3)	0.00	0.01	No	No
405-4		405	6.076	Atlantic Ave. to Long Beach Blvd	0.84	D	1.05	F(0)	0.85	D	1.06	F(0)	0.01	0.01	No	No
405-5		405	6.34	Long Beach Blvd to Jct. Rte. 710	1.00	E	1.25	F(0)	1.01	F(0)	1.26	F(1)	0.01	0.01	No	No
405-6	1066	405	7.596	Jct. Rte. 710 to Alameda St.	0.91	D	1.14	F(0)	0.92	D	1.15	F(0)	0.01	0.01	No	No
405-7		405	8.784	Alameda St. to Wilmington Ave.	0.88	D	1.10	F(0)	0.89	D	1.11	F(0)	0.01	0.01	No	No
405-8		405	9.556	Wilmington Ave. to Carson St.	1.18	F(0)	1.43	F(2)	1.18	F(0)	1.44	F(2)	0.00	0.01	No	No
405-9		405	10.541	Carson St. to Avalon Blvd.	1.16	F(0)	1.40	F(2)	1.17	F(0)	1.42	F(2)	0.01	0.02	No	Yes
405-10	1067	405	11.224	Avalon Blvd. to Jct. Rte. 110	0.99	E	1.20	F(0)	1.01	F(0)	1.21	F(0)	0.02	0.01	Yes	No
405-11		405	12.97	Jct. Rte. 110 to Vermont Ave.	1.06	F(0)	1.31	F(1)	1.08	F(0)	1.33	F(1)	0.02	0.02	Yes	Yes
405-12		405	13.28	Vermont Ave. to Normandie Ave.	0.89	D	1.10	F(0)	0.90	D	1.11	F(0)	0.01	0.01	No	No
405-13		405	13.826	Normandie Ave. to Western Ave.	1.04	F(0)	1.29	F(1)	1.05	F(0)	1.30	F(1)	0.01	0.01	No	No
405-14		405	14.398	Western Ave. to Crenshaw Blvd.	1.00	E	1.24	F(0)	1.02	F(0)	1.25	F(0)	0.02	0.01	Yes	No
405-15		405	15.447	Crenshaw Blvd. to Artesia Blvd.	0.98	E	1.21	F(0)	0.99	E	1.22	F(0)	0.01	0.01	No	No
405-16		405	16.573	Artesia Blvd. to Hawthorne Blvd.	0.99	E	1.23	F(0)	1.00	E	1.24	F(0)	0.01	0.01	No	No
405-17		405	17.589	Hawthorne Blvd. to Inglewood Ave.	1.04	F(0)	1.28	F(1)	1.05	F(0)	1.28	F(1)	0.01	0.00	No	No
405-18	1068	405	18.233	Inglewood Ave. to Rosecrans Ave.	0.87	D	1.07	F(0)	0.88	D	1.08	F(0)	0.01	0.01	No	No
710-1		710	12.97	Jct. Rte. 91 to Alondra Blvd.	0.93	D	0.74	C	0.93	D	0.75	C	0.00	0.01	No	No
710-2		710	13.945	Alondra Blvd. to Jct. Rte. 105	0.96	E	0.77	C	0.97	E	0.77	C	0.01	0.00	No	No

Note: D/C is demand-to-capacity ratio.

Pedestrian Conditions

The proposed project will not result in any significant pedestrian-related impacts under the Interim Year scenario since it will not significantly disrupt existing or planned pedestrian facilities, nor will it significantly conflict with applicable non-automotive transportation plans, guidelines, policies, or standards.

Bicycle Conditions

The proposed project will not result in any significant bicycle-related impacts under the Interim Year scenario since it will not significantly disrupt existing or planned bicycle facilities nor will it significantly conflict with applicable non-automotive transportation plans, guidelines, policies, or standards.

Transit Conditions

The project will not result in any significant transit impacts in 2025 since it will not significantly disrupt existing or planned transit facilities or significantly conflict with applicable transit plans, guidelines, policies, or standards. Please also see the analysis of transit impacts under the Existing plus Project scenario.

Buildout Year (2035) No Project Conditions

Traffic volumes for the 2035 No Project condition were developed by factoring up the existing weekday traffic counts using the LA CMP growth factor and then adding in the traffic for other reasonably foreseeable development projects that may appreciably affect traffic volumes in the vicinity of the campus.[9]

Intersection LOS

Table 3.9-30, Buildout Year (2035) No Project Intersection LOS, summarizes the results of the intersection LOS analysis under Buildout Year No Project conditions. As shown, the following seven intersections will operate below the target LOS D without project traffic:

- No. 1 — Victoria Ave./Drive D (PM peak hour):
- No. 5 — Central Ave./Charles Willard St. (AM and PM peak hours)
- No. 20 — I-110 SB Off-Ramp/190th St. (AM and PM peak hours)
- No. 24 — Main St./Victoria St. (PM peak hour)
- No. 26 — Avalon Blvd./Del Amo Blvd. (PM peak hour)
- No. 33 — W. Artesia Blvd./Crenshaw Blvd. (AM and PM peak hours)

[9] The cumulative projects included as part of the analysis include all development projects listed in the City of Carson's Development Status Report as of August 28, 2017 at http://ci.carson.ca.us/communitydevelopment/devstatusreport.aspx

- No. 35 — W. Artesia Blvd./Vermont Ave. (PM peak hour)

Intersections 1, 20, 33, and 35 are already operating at LOS E or worse under the Existing Conditions. Additional deficiencies projected by 2025 at Intersections 5, 24, and 26 caused by the growth in background (i.e. non-Project) traffic would worsen by 2035.

Table 3.9-30
Buildout Year (2035) No Project Intersection LOS

Study ID	Intersection Name	Control Type	AM Peak Hour		PM Peak Hour	
			V/C Ratio or Delay	LOS (ICU or HCM)	V/C Ratio or Delay	LOS (ICU or HCM)
1	Victoria St./Drive D	TWSC	26	D	>180	**F**
2	Victoria St./Tamcliff Ave.	Signalized	0.441	A	0.606	B
3	Victoria St./Birchknoll Dr.	Signalized	0.569	A	0.691	B
4	Victoria St./Project Service Rd.	N/A	N/A	N/A	N/A	N/A
5	Central Ave./Charles Willard St.	TWSC	39.8	**E**	34.2	D
6	Central Ave./Beachey Pl.	TWSC	19.3	C	22.8	C
7	Central Ave./Glenn Curtiss St.	Signalized	0.453	A	0.509	A
8	University Dr./Birchknoll Dr. Ext.	N/A	N/A	N/A	N/A	N/A
9	University Dr./Toro Center Dr.	TWSC	13.6	B	14.8	B
10	Albertoni St./SR 91 EB Ramps	Signalized	0.617	B	0.816	D
11	Avalon Blvd./SR 91 WB On-Ramp	Signalized	0.53	A	0.532	A
12	Avalon Blvd./Albertoni St.	Signalized	0.621	B	0.829	D
13	Avalon Blvd./Victoria St.	Signalized	0.623	B	0.893	D
14	Central Ave./Artesia Blvd. WB	Signalized	0.804	D	0.771	C
15	Central Ave./Albertoni St./Artesia Blvd. EB	Signalized	0.816	D	0.796	C
16	Central Ave./Victoria St.	Signalized	0.575	A	0.7	B
17	Wilmington Ave./Artesia Blvd. WB	Signalized	0.737	C	0.748	C
18	Wilmington Ave./Artesia Blvd. EB	Signalized	0.738	C	0.759	C
19	Wilmington Ave./Victoria St.	Signalized	0.549	A	0.58	A
20	I-110 SB Off-Ramp/190th St.	Signalized	1.081	**F**	1.109	**F**
21	I-110 NB On-Ramp/190th St.	Signalized	0.506	A	0.725	C
22	Figueroa St./190th St./Victoria St.	Signalized	0.831	D	0.882	D
23	Broadway/Victoria St.	Signalized	0.587	A	0.759	C
24	Main St./Victoria St.	Signalized	0.669	B	0.909	**E**
25	Avalon Blvd./University Dr.	Signalized	0.469	A	0.655	B
26	Avalon Blvd./Del Amo Blvd.	Signalized	0.868	D	0.952	**E**
27	Avalon Blvd./I-405 NB Ramps	Signalized	0.512	A	0.518	A
28	Avalon Blvd./I-405 SB Ramps	Signalized	0.6	B	0.571	A
29	Central Ave./University Dr.	Signalized	0.588	A	0.525	A
30	Wilmington Ave./University Dr.	Signalized	0.504	A	0.594	A
31	Central Ave./Del Amo Blvd.	Signalized	0.756	C	0.734	C
32	Wilmington Ave./Del Amo Blvd.	Signalized	0.678	B	0.713	C
33	W. Artesia Blvd./Crenshaw Blvd.	Signalized	0.956	**E**	1.028	**F**
34	W. 190th St./S. Western Ave.	Signalized	0.851	D	0.803	D
35	W. Artesia Blvd./Vermont Ave.	Signalized	0.863	D	1.076	**F**
36	Alameda St./Compton Blvd.	Signalized	0.697	B	0.744	C
37	Alameda St./SR 91 EB Ramps	Signalized	0.591	A	0.794	C

*Intersection LOS was calculated using HCM 2000 Delay Method, because ICU cannot be calculated for TWSC intersections.

Source: TIS (February 2019)

Study Area Freeway Segments

The Buildout Year (2035) No Project Conditions LOS for the study area freeway segments are summarized in **Table 3.9-31**, 2035 Weekday No Project LOS Study Area Freeway Locations. As shown, the following 7 CMP locations do not meet the target LOS of D or better under this scenario; these are the same 7 locations that already operate at LOS worse than D under Existing Conditions and under Interim Year (2025) No Project Conditions:

- CMP Station No. 1033 — SR-91 East of Alameda St./Santa Fe Ave., Eastbound (PM peak hour)
- CMP Station No. 1034 — SR-91 East of Cherry Ave., Eastbound (PM peak hour) and Westbound (AM peak hour)
- CMP Station No. 1046 — I-110 at Manchester Blvd., Northbound (AM and PM peak hours) and Southbound (AM and PM peak hours)
- CMP Station No. 1047 — I-110 at Slauson Ave., Northbound and Southbound (AM and PM peak hours)
- CMP Station No. 1066 — I-405 at Santa Fe Ave., Northbound (AM and PM peak hours) and Southbound (PM peak hour)
- CMP Station No. 1067 — I-405 South of I-110 at the Carson Scales, Northbound (AM and PM peak hours) and Southbound (AM and PM peak hours)
- CMP Station No. 1068 — I-405 North of Inglewood Ave. at Compton Blvd., Northbound (AM and PM peak hour) and Southbound (PM peak hour)
- In addition to the 7 CMP monitoring locations, the following freeway segments are forecast to operate at a LOS worse than D:SR-91 eastbound, Jct. Rte. 110 to Avalon Blvd., during the PM peak hour
- SR-91 eastbound, Avalon Blvd. to Central Ave., during the PM peak hour
- SR-91 eastbound, Central Ave. to Wilmington Ave., during the PM peak hour
- SR-91 eastbound, Wilmington Ave. to Alameda St., during the PM peak hour
- SR-91 eastbound, Alameda St. to Alameda St./Santa Fe Ave., during both peak hours
- SR-91 eastbound, Alameda St./Santa Fe Ave. to Long Beach Blvd., during the PM peak hour
- SR-91 eastbound, Long Beach Blvd. to Jct. Rte. 710, during the PM peak hour
- SR-91 eastbound, Jct. Rte. 710 to Cherry Ave., during the PM peak hour
- SR-91 eastbound, Cherry Ave. to Paramount Blvd., during the PM peak hour
- SR-91 eastbound, Paramount Blvd. to Downey Ave., during the PM peak hour
- SR-91 eastbound, Downey Ave. to Jct. Rte. 19, during the PM peak hour
- SR-91 eastbound, Jct. Rte. 19 to Clark Ave., during the PM peak hour

- SR-91 eastbound, Clark Ave. to Bellflower Blvd., during the PM peak hour
- SR-91 eastbound, Bellflower Blvd. to Jct. Rte. 605, during the PM peak hour
- I-110 northbound, Sepulveda Blvd. to Carson St., during the AM peak hour
- I-110 northbound, Carson St. to Torrance/Del Amo Blvd., during both peak hours
- I-110 northbound, Torrance/Del Amo Blvd. to Jct. Rte. 405, during both peak hours
- I-110 northbound, Jct. Rte. 405 to Jct. Rte. 91, during the AM peak hour
- I-110 northbound, Century Blvd. to Manchester Ave., during both peak hours
- I-110 northbound, Manchester Ave. to Florence Ave., during both peak hours
- I-110 northbound, Florence Ave. to Gage Ave., during both peak hours
- I-110 northbound, Gage Ave. to Slauson Ave., during both peak hours
- I-110 northbound, Slauson Ave. to 51st St., during both peak hours
- I-110 northbound, 51st St. to Vernon Ave., during both peak hours
- I-110 northbound, Vernon Ave. to Martin Luther King Jr. Blvd., during both peak hours
- I-405 northbound, Lakewood Blvd. to Cherry Ave., during both peak hours
- I-405 northbound, Cherry Ave. to Orange Ave., during both peak hours
- I-405 northbound, Orange Ave. to Atlantic Ave., during both peak hours
- I-405 northbound, Atlantic Ave. to Long Beach Blvd, during both peak hours
- I-405 northbound, Long Beach Blvd to Jct. Rte. 710, during both peak hours
- I-405 northbound, Jct. Rte. 710 to Alameda St., during both peak hours
- I-405 northbound, Alameda St. to Wilmington Ave., during both peak hours
- I-405 northbound, Wilmington Ave. to Carson St., during both peak hours
- I-405 northbound, Carson St. to Avalon Blvd., during both peak hours
- I-405 northbound, Avalon Blvd. to Jct. Rte. 110, during both peak hours
- I-405 northbound, Jct. Rte. 110 to Vermont Ave., during both peak hours
- I-405 northbound, Vermont Ave. to Normandie Ave., during the AM peak hour
- I-405 northbound, Normandie Ave. to Western Ave., during both peak hours
- I-405 northbound, Western Ave. to Crenshaw Blvd., during both peak hours
- I-405 northbound, Crenshaw Blvd. to Artesia Blvd., during both peak hours
- I-405 northbound, Artesia Blvd. to Hawthorne Blvd., during the AM peak hour
- I-405 northbound, Hawthorne Blvd. to Inglewood Ave., during both peak hours
- I-405 northbound, Inglewood Ave. to Rosecrans Ave., during both peak hours

- I-710 northbound, Jct. Rte. 91 to Alondra Blvd., during both peak hours
- I-710 northbound, Alondra Blvd. to Jct. Rte. 105, during both peak hours
- SR-91 westbound, Jct. Rte. 110 to Avalon Blvd., during both peak hours
- SR-91 westbound, Avalon Blvd. to Central Ave., during the AM peak hour
- SR-91 westbound, Central Ave. to Wilmington Ave., during the AM peak hour
- SR-91 westbound, Wilmington Ave. to Alameda St., during the AM peak hour
- SR-91 westbound, Alameda St. to Alameda St./Santa Fe Ave., during the AM peak hour
- SR-91 westbound, Long Beach Blvd. to Jct. Rte. 710, during the AM peak hour
- SR-91 westbound, Jct. Rte. 710 to Cherry Ave., during both peak hours
- SR-91 westbound, Cherry Ave. to Paramount Blvd., during the AM peak hour
- SR-91 westbound, Paramount Blvd. to Downey Ave., during both peak hours
- SR-91 westbound, Downey Ave. to Jct. Rte. 19, during the AM peak hour
- SR-91 westbound, Jct. Rte. 19 to Clark Ave., during both peak hours
- SR-91 westbound, Clark Ave. to Bellflower Blvd., during the AM peak hour
- SR-91 westbound, Bellflower Blvd. to Jct. Rte. 605, during the AM peak hour
- I-110 southbound, Sepulveda Blvd. to Carson St., during the PM peak hour
- I-110 southbound, Carson St. to Torrance/Del Amo Blvd., during both peak hours
- I-110 southbound, Torrance/Del Amo Blvd. to Jct. Rte. 405, during both peak hours
- I-110 southbound, Jct. Rte. 405 to Jct. Rte. 91, during both peak hours
- I-110 southbound, Redondo Beach Blvd. to Rosecrans Ave., during the AM peak hour
- I-110 southbound, Rosecrans Ave. to El Segundo Blvd., during both peak hours
- I-110 southbound, Century Blvd. to Manchester Ave., during both peak hours
- I-110 southbound, Manchester Ave. to Florence Ave., during both peak hours
- I-110 southbound, Florence Ave. to Gage Ave., during both peak hours
- I-110 southbound, Gage Ave. to Slauson Ave., during both peak hours
- I-110 southbound, Slauson Ave. to 51st St., during both peak hours
- I-110 southbound, 51st St. to Vernon Ave., during both peak hours
- I-110 southbound, Vernon Ave. to Martin Luther King Jr. Blvd., during both peak hours
- I-110 southbound, Martin Luther King Jr. Blvd. to Exposition Blvd., during both peak hours

- I-405 southbound, Lakewood Blvd. to Cherry Ave., during both peak hours
- I-405 southbound, Cherry Ave. to Orange Ave., during both peak hours
- I-405 southbound, Orange Ave. to Atlantic Ave., during both peak hours
- I-405 southbound, Atlantic Ave. to Long Beach Blvd, during the PM peak hour
- I-405 southbound, Long Beach Blvd to Jct. Rte. 710, during both peak hours
- I-405 southbound, Jct. Rte. 710 to Alameda St., during the PM peak hour
- I-405 southbound, Alameda St. to Wilmington Ave., during the PM peak hour
- I-405 southbound, Wilmington Ave. to Carson St., during both peak hours
- I-405 southbound, Carson St. to Avalon Blvd., during both peak hours
- I-405 southbound, Avalon Blvd. to Jct. Rte. 110, during both peak hours
- I-405 southbound, Jct. Rte. 110 to Vermont Ave., during both peak hours
- I-405 southbound, Vermont Ave. to Normandie Ave., during the PM peak hour
- I-405 southbound, Normandie Ave. to Western Ave., during both peak hours
- I-405 southbound, Western Ave. to Crenshaw Blvd., during both peak hours
- I-405 southbound, Crenshaw Blvd. to Artesia Blvd., during both peak hours
- I-405 southbound, Artesia Blvd. to Hawthorne Blvd., during both peak hours
- I-405 southbound, Hawthorne Blvd. to Inglewood Ave., during both peak hours
- I-405 southbound, Inglewood Ave. to Rosecrans Ave., during the PM peak hour
- I-710 southbound, Alondra Blvd. to Jct. Rte. 105, during the AM peak hour

Table 3.9-31
2035 Weekday No Project LOS Study Area Freeway Locations

ID	CMP Station	Fwy Rte	Post Mile	Location	Northbound/Eastbound								Southbound/Westbound							
					AM Peak Hour				PM Peak Hour				AM Peak Hour				PM Peak Hour			
					Demand	Capacity	D/C	LOS	Demand	Capacity	D/C	LOS	Demand	Capacity	D/C	LOS	Demand	Capacity	D/C	LOS
91-1		91	6.344	Jct. Rte. 110 to Avalon Blvd.	7,000	12,000	0.58	C	14,400	12,000	1.20	F(0)	9,300	4,000	2.33	F(3)	6,300	4,000	1.58	F(3)
91-2		91	7.426	Avalon Blvd. to Central Ave.	7,200	10,000	0.72	C	14,700	10,000	1.47	F(3)	9,500	10,000	0.95	E	6,500	10,000	0.65	C
91-3		91	8.435	Central Ave. to Wilmington Ave.	7,300	10,000	0.73	C	14,900	10,000	1.49	F(3)	9,700	10,000	0.97	E	6,600	10,000	0.66	C
91-4		91	9.162	Wilmington Ave. to Alameda St.	7,600	10,000	0.76	C	15,500	10,000	1.55	F(3)	10,000	10,000	1.00	E	6,800	10,000	0.68	C
91-5		91	10.271	Alameda St. to Alameda St./Santa Fe Ave.	7,900	8,000	0.99	E	16,200	8,000	2.03	F(3)	10,500	8,000	1.31	F(1)	7,100	8,000	0.89	D
91-6	1033	91	10.41	Alameda St./Santa Fe Ave. to Long Beach Blvd.	8,200	12,000	0.68	C	16,800	12,000	1.40	F(2)	10,900	12,000	0.91	D	7,400	12,000	0.62	C
91-7		91	11.096	Long Beach Blvd. to Jct. Rte. 710	8,200	12,000	0.68	C	16,800	12,000	1.40	F(2)	10,900	10,000	1.09	F(0)	7,400	10,000	0.74	C
91-8		91	11.681	Jct. Rte. 710 to Cherry Ave.	8,400	10,000	0.84	D	12,000	10,000	1.20	F(0)	13,500	10,000	1.35	F(1)	9,500	10,000	0.95	E
91-9	1034	91	13.094	Cherry Ave. to Paramount Blvd.	8,500	10,000	0.85	D	12,200	10,000	1.22	F(0)	13,700	12,000	1.14	F(0)	9,600	12,000	0.80	D
91-10		91	13.594	Paramount Blvd. to Downey Ave.	8,300	10,000	0.83	D	11,800	10,000	1.18	F(0)	13,300	10,000	1.33	F(1)	9,400	10,000	0.94	E
91-11		91	14.103	Downey Ave. to Jct. Rte. 19	8,300	12,000	0.69	C	11,800	12,000	0.98	E	13,200	10,000	1.32	F(1)	9,300	10,000	0.93	D
91-12		91	14.618	Jct. Rte. 19 to Clark Ave.	7,600	10,000	0.76	C	10,900	10,000	1.09	F(0)	12,300	8,000	1.54	F(3)	8,600	8,000	1.08	F(0)
91-13		91	15.105	Clark Ave. to Bellflower Blvd.	8,100	12,000	0.68	C	11,500	12,000	0.96	E	12,900	10,000	1.29	F(1)	9,100	10,000	0.91	D
91-14		91	15.614	Bellflower Blvd. to Jct. Rte. 605	8,000	12,000	0.67	C	11,400	12,000	0.95	E	12,800	10,000	1.28	F(1)	9,000	10,000	0.90	D
110-1	1045	110	1.23	Channel St. to C St.	4,500	8,000	0.56	C	3,200	8,000	0.40	B	3,600	8,000	0.45	B	4,300	8,000	0.54	B
110-2		110	2.771	C St. to Anaheim St.	4,700	10,000	0.47	B	3,400	10,000	0.34	A	3,800	8,000	0.48	B	4,500	8,000	0.56	C
110-3		110	3.264	Anaheim St. to Jct. Rte. 1	5,100	10,000	0.51	B	3,600	10,000	0.36	B	4,100	10,000	0.41	B	4,900	10,000	0.49	B
110-4		110	4.061	Jct. Rte. 1 to Sepulveda Blvd.	7,100	8,000	0.89	D	5,100	8,000	0.64	C	5,700	8,000	0.71	C	6,900	8,000	0.86	D
110-5		110	5.451	Sepulveda Blvd. to Carson St.	9,200	8,000	1.15	F(0)	6,600	8,000	0.83	D	7,400	8,000	0.93	D	9,000	8,000	1.13	F(0)
110-6		110	7.016	Carson St. to Torrance/Del Amo Blvd.	10,600	8,000	1.33	F(1)	7,700	8,000	0.96	E	8,600	8,000	1.08	F(0)	10,400	8,000	1.30	F(1)
110-7		110	8.028	Torrance/Del Amo Blvd. to Jct. Rte. 405	11,200	8,000	1.40	F(2)	8,100	8,000	1.01	F(0)	9,100	8,000	1.14	F(0)	11,000	8,000	1.38	F(2)
110-8		110	8.775	Jct. Rte. 405 to Jct. Rte. 91	13,800	12,000	1.15	F(0)	9,900	12,000	0.83	D	11,100	8,000	1.39	F(2)	13,500	8,000	1.69	F(3)
110-9		110	9.87	Jct. Rte. 91 to Redondo Beach Blvd.	9,100	12,000	0.76	C	9,200	12,000	0.77	C	9,900	12,000	0.83	D	9,600	12,000	0.80	D
110-10		110	11.239	Redondo Beach Blvd. to Rosecrans Ave.	9,400	11,000	0.85	D	9,600	11,000	0.87	D	10,300	11,000	0.94	E	9,900	11,000	0.90	D
110-11		110	11.891	Rosecrans Ave. to El Segundo Blvd.	9,800	11,000	0.89	D	10,000	11,000	0.91	D	10,800	11,000	0.98	E	10,400	11,000	0.95	E
110-12		110	12.898	El Segundo Blvd. to Jct. Rte. 105	10,000	11,000	0.91	D	10,200	11,000	0.93	D	11,000	13,000	0.85	D	10,600	13,000	0.82	D
110-13		110	13.82	Jct. Rte. 105 to Century Blvd.	11,200	14,000	0.80	D	11,400	14,000	0.81	D	12,200	14,000	0.87	D	11,800	14,000	0.84	D
110-14		110	14.967	Century Blvd. to Manchester Ave.	12,000	12,000	1.00	E	12,200	12,000	1.02	F(0)	13,100	12,000	1.09	F(0)	12,700	12,000	1.06	F(0)
110-15	1046	110	15.976	Manchester Ave. to Florence Ave.	11,700	12,000	0.98	E	11,900	12,000	0.99	E	12,800	12,000	1.07	F(0)	12,300	12,000	1.03	F(0)
110-16		110	16.981	Florence Ave. to Gage Ave.	12,100	12,000	1.01	F(0)	12,300	12,000	1.03	F(0)	12,900	12,000	1.08	F(0)	12,500	12,000	1.04	F(0)
110-17	1047	110	17.514	Gage Ave. to Slauson Ave.	12,000	12,000	1.00	E	12,200	12,000	1.02	F(0)	12,900	12,000	1.08	F(0)	12,400	12,000	1.03	F(0)
110-18		110	17.98	Slauson Ave. to 51st St.	11,600	10,000	1.16	F(0)	11,700	10,000	1.17	F(0)	12,400	10,000	1.24	F(0)	11,900	10,000	1.19	F(0)
110-19		110	18.495	51st St. to Vernon Ave.	11,800	10,000	1.18	F(0)	12,000	10,000	1.20	F(0)	12,600	12,000	1.05	F(0)	12,200	12,000	1.02	F(0)
110-20		110	18.998	Vernon Ave. to Martin Luther King Jr. Blvd.	11,800	12,000	0.98	E	12,000	12,000	1.00	E	12,600	12,000	1.05	F(0)	12,200	12,000	1.02	F(0)
110-21		110	19.502	Martin Luther King Jr. Blvd. to Exposition Blvd.	10,700	12,000	0.89	D	10,800	12,000	0.90	D	11,400	10,000	1.14	F(0)	11,000	10,000	1.10	F(0)
110-22		110	19.996	Exposition Blvd. to Jct. Rte. 10	10,300	12,000	0.86	D	10,500	12,000	0.88	D	11,100	12,000	0.93	D	10,700	12,000	0.89	D
405-1		405	3.324	Lakewood Blvd. to Cherry Ave.	12,500	10,000	1.25	F(0)	10,700	10,000	1.07	F(0)	9,400	10,000	0.94	E	11,700	10,000	1.17	F(0)
405-2		405	4.879	Cherry Ave. to Orange Ave.	13,200	10,000	1.32	F(1)	11,200	10,000	1.12	F(0)	9,800	8,000	1.23	F(0)	12,300	8,000	1.54	F(3)
405-3		405	5.388	Orange Ave. to Atlantic Ave.	13,700	8,000	1.71	F(3)	11,700	8,000	1.46	F(3)	10,200	8,000	1.28	F(1)	12,800	8,000	1.60	F(3)
405-4		405	6.076	Atlantic Ave. to Long Beach Blvd	13,500	8,000	1.69	F(3)	11,500	8,000	1.44	F(2)	10,100	12,000	0.84	D	12,600	12,000	1.05	F(0)
405-5		405	6.34	Long Beach Blvd to Jct. Rte. 710	13,400	12,000	1.12	F(0)	11,400	12,000	0.95	E	10,000	10,000	1.00	E	12,500	10,000	1.25	F(0)
405-6	1066	405	7.596	Jct. Rte. 710 to Alameda St.	12,200	10,000	1.22	F(0)	10,400	10,000	1.04	F(0)	9,100	10,000	0.91	D	11,400	10,000	1.14	F(0)
405-7		405	8.784	Alameda St. to Wilmington Ave.	11,800	10,000	1.18	F(0)	10,000	10,000	1.00	E	8,800	10,000	0.88	D	11,000	10,000	1.10	F(0)
405-8		405	9.556	Wilmington Ave. to Carson St.	11,000	8,000	1.38	F(2)	9,500	8,000	1.19	F(0)	9,400	8,000	1.18	F(0)	11,400	8,000	1.43	F(2)
405-9		405	10.541	Carson St. to Avalon Blvd.	10,800	8,000	1.35	F(1)	9,300	8,000	1.16	F(0)	9,300	8,000	1.16	F(0)	11,200	8,000	1.40	F(2)
405-10	1067	405	11.224	Avalon Blvd. to Jct. Rte. 110	11,600	10,000	1.16	F(0)	10,000	10,000	1.00	E	9,900	10,000	0.99	E	12,000	10,000	1.20	F(0)
405-11		405	12.97	Jct. Rte. 110 to Vermont Ave.	11,400	10,000	1.14	F(0)	9,900	10,000	0.99	E	8,500	8,000	1.06	F(0)	10,500	8,000	1.31	F(1)
405-12		405	13.28	Vermont Ave. to Normandie Ave.	11,900	12,000	0.99	E	10,400	12,000	0.87	D	8,900	10,000	0.89	D	11,000	10,000	1.10	F(0)
405-13		405	13.826	Normandie Ave. to Western Ave.	11,200	10,000	1.12	F(0)	9,700	10,000	0.97	E	8,300	8,000	1.04	F(0)	10,300	8,000	1.29	F(1)
405-14		405	14.398	Western Ave. to Crenshaw Blvd.	10,700	8,000	1.34	F(1)	9,300	8,000	1.16	F(0)	8,000	8,000	1.00	E	9,900	8,000	1.24	F(0)
405-15		405	15.447	Crenshaw Blvd. to Artesia Blvd.	10,500	8,000	1.31	F(1)	9,100	8,000	1.14	F(0)	7,800	8,000	0.98	E	9,700	8,000	1.21	F(0)
405-16		405	16.573	Artesia Blvd. to Hawthorne Blvd.	10,600	10,000	1.06	F(0)	9,200	10,000	0.92	D	7,900	8,000	0.99	E	9,800	8,000	1.23	F(0)
405-17		405	17.589	Hawthorne Blvd. to Inglewood Ave.	11,100	10,000	1.11	F(0)	9,700	10,000	0.97	E	8,300	8,000	1.04	F(0)	10,200	8,000	1.28	F(1)
405-18	1068	405	18.233	Inglewood Ave. to Rosecrans Ave.	11,600	10,000	1.16	F(0)	10,100	10,000	1.01	F(0)	8,700	10,000	0.87	D	10,700	10,000	1.07	F(0)
710-1		710	12.97	Jct. Rte. 91 to Alondra Blvd.	11,400	12,000	0.95	E	17,700	12,000	1.48	F(3)	11,100	12,000	0.93	D	8,900	12,000	0.74	C
710-2		710	13.945	Alondra Blvd. to Jct. Rte. 105	11,800	12,000	0.98	E	18,300	12,000	1.53	F(3)	11,500	12,000	0.96	E	9,200	12,000	0.77	C

Note: D/C is demand-to-capacity ratio.

Buildout Year (2035) Sunday No Project Conditions

Traffic volumes for the Buildout Year (2035) Sunday (27,000-Seat) Conditions were developed by factoring up the existing non-event Sunday traffic counts using the LA CMP growth factor and then adding in the traffic for a 27,000-seat event at the existing StubHub stadium.

Study Area Intersections

Table 3.9-32, Buildout Year (2035) Sunday (27,000-Seat) Intersection LOS, summarizes the results of the intersection LOS analysis. As shown, under 2035 Sunday no project conditions, all of the study area intersections will operate at LOS D or better.

Table 3.9-32
Buildout Year (2035) Sunday (27,000-Seat) Intersection LOS

Study ID	Intersection Name	Control Type	Pre-Game Peak Hour		Post-Game Peak Hour	
			V/C Ratio	ICU LOS	V/C Ratio	ICU LOS
1	Victoria St./Drive D	TWSC	0.600	A	0.522	A
2	Victoria St./Tamcliff Ave.	Signalized	0.319	A	0.625	B
3	Victoria St./Birchknoll Dr.	Signalized	0.209	A	0.666	B
9	University Dr./Toro Center Dr.	TWSC	0.544	A	0.675	B
10	Albertoni St./SR 91 EB Ramps	Signalized	0.595	A	0.336	A
11	Avalon Blvd./SR 91 WB On-Ramp	Signalized	0.641	B	0.766	C
12	Avalon Blvd./Albertoni St.	Signalized	0.801	D	0.609	B
13	Avalon Blvd./Victoria St.	Signalized	0.734	C	0.559	A
14	Central Ave./Artesia Blvd. WB	Signalized	0.551	A	0.544	A
15	Central Ave./Albertoni St./Artesia Blvd. EB	Signalized	0.522	A	0.477	A
16	Central Ave./Victoria St.	Signalized	0.759	C	0.572	A
17	Wilmington Ave./Artesia Blvd. WB	Signalized	0.525	A	0.552	A
18	Wilmington Ave./Artesia Blvd. EB	Signalized	0.384	A	0.761	C
19	Wilmington Ave./Victoria St.	Signalized	0.511	A	0.595	A
22	Figueroa St./190th St./Victoria St.	Signalized	0.481	A	0.334	A
24	Main St./Victoria St.	Signalized	0.472	A	0.319	A
25	Avalon Blvd./University Dr.	Signalized	0.619	B	0.850	D
26	Avalon Blvd./Del Amo Blvd.	Signalized	0.755	C	0.820	D
27	Avalon Blvd./I-405 NB Ramps	Signalized	0.684	B	0.557	A
28	Avalon Blvd./I-405 SB Ramps	Signalized	0.644	B	0.523	A
29	Central Ave./University Dr.	Signalized	0.812	D	0.659	B
30	Wilmington Ave./University Dr.	Signalized	0.750	C	0.436	A
31	Central Ave./Del Amo Blvd.	Signalized	0.510	A	0.474	A
32	Wilmington Ave./Del Amo Blvd.	Signalized	0.529	A	0.526	A
38	Avalon Blvd./184th St.	Signalized	0.458	A	0.386	A
39	Avalon Blvd./182nd St.	TWSC	0.375	A	0.615	B
40	Victoria St./Drive C	TWSC	0.681	B	0.356	A
41	Victoria St./Rainsbury Ave.	TWSC	0.813	D	0.391	A
42	Avalon Blvd./Harbor Village/Colony Cove	Signalized	0.673	B	0.554	A

Source: TIS (February 2019)

Buildout Year (2035) Plus Project Conditions

Traffic volumes for the Buildout (2035) Plus Project Condition were developed by adding the traffic from the full buildout of the Master Plan, including full development of the University Village and the projected growth in student enrollment to the Buildout Year 2035 No Project Conditions. Please see **Table 3.9-10**, Buildout Year 2035 Trip Generation, for the specific vehicle trip generation used for the analysis.

Study Area Intersections

The results of the intersection LOS analysis are summarized in **Table 3.9-33**, Buildout Year (2035) Plus Project Intersection LOS, and **Table 3.9-34**, Buildout Year (2035) Plus Project Significant Impacts. As shown on the tables, the LOS for each intersection under Plus Project Conditions was compared to the Buildout Year (2035) No Project Conditions, with resulting significant impact determinations made. The results show that the proposed project would result in significant cumulative impacts at the following 17 study area intersections:

- No. 1 – Victoria St./Drive D (AM peak hour)
- No. 3 – Victoria St./Birchknoll Dr. (PM peak hour)
- No. 5 – Central Ave./Charles Willard St. (PM peak hour)
- No. 6 – Central Ave./Project Driveway/Beachey Pl. (AM and PM peak hours)
- No. 9 – University Dr./Toro Center Dr. (AM and PM peak hours)
- No. 10 – Albertoni St./SR-91 EB Ramps (PM peak hour)
- No. 12 – Avalon Blvd./Albertoni St. (PM peak hour)
- No. 13 – Avalon Blvd./Victoria St. (AM and PM peak hours)
- No. 14 – Central Ave./Artesia Blvd. WB (AM and PM peak hours)
- No. 15 – Central Ave./Albertoni St./Artesia Blvd. EB (AM and PM peak hours)
- No. 16 – Central Ave./Victoria St. (AM and PM peak hours)
- No. 20 – I-110 SB Off-Ramp/190th St. (AM and PM peak hours)
- No. 22 – Figueroa St./190th St./Victoria St. (AM and PM peak hours)
- No. 23 -- Broadway/Victoria St. (PM peak hour)
- No. 24 – Main St./Victoria St. (PM peak hour)
- No. 26 – Avalon Blvd./Del Amo Blvd. (AM and PM peak hours)
- No. 29 – Central Ave./University Dr. (AM and PM peak hours)

Table 3.9-33
Buildout Year (2035) Plus Project Intersection LOS

Study ID	Intersection Name	Control Type	AM Peak Hour		PM Peak Hour	
			V/C Ratio or Delay	LOS (ICU or HCM)	V/C Ratio or Delay	LOS (ICU or HCM)
1	Victoria St./Drive D	TWSC	>180	**F**	>180	**F**
2	Victoria St./Tamcliff Ave.	Signalized	0.581	A	0.794	C
3	Victoria St./Birchknoll Dr.	Signalized	0.678	B	0.991	**E**
4	Victoria St./Project Service Rd.	TWSC	14.6	B	19.9	C
5	Central Ave./Charles Willard St.	TWSC	>180	**F**	>180	**F**
6	Central Ave./Beachey Pl.	TWSC	>180	**F**	>180	**F**
7	Central Ave./Glenn Curtiss St.	Signalized	0.863	D	0.881	D
8	University Dr./Birchknoll Dr. Ext.	TWSC	21.3	C	17.3	C
9	University Dr./Toro Center Dr.	TWSC	>180	**F**	>180	**F**
10	Albertoni St./SR 91 EB Ramps	Signalized	0.787	C	0.931	**E**
11	Avalon Blvd./SR 91 WB On-Ramp	Signalized	0.53	A	0.535	A
12	Avalon Blvd./Albertoni St.	Signalized	0.709	C	0.91	**E**
13	Avalon Blvd./Victoria St.	Signalized	0.95	**E**	1.216	**F**
14	Central Ave./Artesia Blvd. WB	Signalized	1.059	**F**	1.029	**F**
15	Central Ave./Albertoni St./Artesia Blvd. EB	Signalized	1.209	**F**	1.043	**F**
16	Central Ave./Victoria St.	Signalized	1.138	**F**	0.975	**E**
17	Wilmington Ave./Artesia Blvd. WB	Signalized	0.74	C	0.754	C
18	Wilmington Ave./Artesia Blvd. EB	Signalized	0.744	C	0.761	C
19	Wilmington Ave./Victoria St.	Signalized	0.558	A	0.587	A
20	I-110 SB Off-Ramp/190th St.	Signalized	1.234	**F**	1.259	**F**
21	I-110 NB On-Ramp/190th St.	Signalized	0.659	B	0.875	D
22	Figueroa St./190th St./Victoria St.	Signalized	0.988	**E**	1.128	**F**
23	Broadway/Victoria St.	Signalized	0.756	C	0.928	**E**
24	Main St./Victoria St.	Signalized	0.831	D	1.144	**F**
25	Avalon Blvd./University Dr.	Signalized	0.538	A	0.788	C
26	Avalon Blvd./Del Amo Blvd.	Signalized	0.918	**E**	1.034	**F**
27	Avalon Blvd./I-405 NB Ramps	Signalized	0.519	A	0.532	A
28	Avalon Blvd./I-405 SB Ramps	Signalized	0.605	B	0.576	A
29	Central Ave./University Dr.	Signalized	1.3	**F**	1.166	**F**
30	Wilmington Ave./University Dr.	Signalized	0.687	B	0.788	C
31	Central Ave./Del Amo Blvd.	Signalized	0.876	D	0.81	D
32	Wilmington Ave./Del Amo Blvd.	Signalized	0.726	C	0.763	C
33	W. Artesia Blvd./Crenshaw Blvd.	Signalized	0.972	**E**	1.042	**F**
34	W. 190th St./S. Western Ave.	Signalized	0.855	D	0.871	D
35	W. Artesia Blvd./Vermont Ave.	Signalized	0.87	D	1.079	**F**
36	Alameda St./Compton Blvd.	Signalized	0.697	B	0.756	C
37	Alameda St./SR 91 EB Ramps	Signalized	0.594	A	0.806	D

*Intersection LOS was calculated using HCM 2000 Delay Method, because ICU cannot be calculated for TWSC intersections.

Source: TIS (February 2019)

Table 3.9-34
Buildout Year (2035) Plus Project Significant Impacts

Study ID	Intersection Name	Control Type	2035 Scenarios					
			AM Peak Hour			PM Peak Hour		
			No Project LOS	Plus Project LOS	Project Has Significant Impact?	No Project LOS	Plus Project LOS	Project Has Significant Impact?
1	Victoria St./Drive D	TWSC	D	**F**	**Yes**	**F**	**F**	**Yes**
2	Victoria St./Tamcliff Ave.	Signalized	A	A	No	B	C	No
3	Victoria St./Birchknoll Dr.	Signalized	A	B	No	B	**E**	**Yes**
4	Victoria St./Project Service Rd.	TWSC	N/A	B	No	N/A	C	No
5	Central Ave./Charles Willard St.	TWSC	**E**	**F**	**Yes**	D	**F**	**Yes**
6	Central Ave./Beachey Pl.	TWSC	C	**F**	**Yes**	C	**F**	**Yes**
7	Central Ave./Glenn Curtiss St.	Signalized	A	D	No	A	D	No
8	University Dr./Birchknoll Dr. Ext.	TWSC	N/A	C	No	N/A	C	No
9	University Dr./Toro Center Dr.	TWSC	B	**F**	**Yes**	B	**F**	**Yes**
10	Albertoni St./SR 91 EB Ramps	Signalized	B	C	No	D	**E**	**Yes**
11	Avalon Blvd./SR 91 WB On-Ramp	Signalized	A	A	No	A	A	No
12	Avalon Blvd./Albertoni St.	Signalized	B	C	No	D	**E**	**Yes**
13	Avalon Blvd./Victoria St.	Signalized	B	**E**	**Yes**	D	**F**	**Yes**
14	Central Ave./Artesia Blvd. WB	Signalized	D	**F**	**Yes**	C	**F**	**Yes**
15	Central Ave./Albertoni St./Artesia Blvd. EB	Signalized	D	**F**	**Yes**	C	**F**	**Yes**
16	Central Ave./Victoria St.	Signalized	A	**F**	**Yes**	B	**E**	**Yes**
17	Wilmington Ave./Artesia Blvd. WB	Signalized	C	C	No	C	C	No
18	Wilmington Ave./Artesia Blvd. EB	Signalized	C	C	No	C	C	No
19	Wilmington Ave./Victoria St.	Signalized	A	A	No	A	A	No
20	I-110 SB Off-Ramp/190th St.	Signalized	**F**	**F**	**Yes**	**F**	**F**	**Yes**
21	I-110 NB On-Ramp/190th St.	Signalized	A	B	No	C	D	No
22	Figueroa St./190th St./Victoria St.	Signalized	D	**E**	**Yes**	D	**F**	**Yes**
23	Broadway/Victoria St.	Signalized	A	C	No	C	**E**	**Yes**
24	Main St./Victoria St.	Signalized	B	D	No	**E**	**F**	**Yes**
25	Avalon Blvd./University Dr.	Signalized	A	A	No	B	C	No
26	Avalon Blvd./Del Amo Blvd.	Signalized	D	**E**	**Yes**	**E**	**F**	**Yes**
27	Avalon Blvd./I-405 NB Ramps	Signalized	A	A	No	A	A	No
28	Avalon Blvd./I-405 SB Ramps	Signalized	B	B	No	A	A	No
29	Central Ave./University Dr.	Signalized	A	**F**	**Yes**	A	**F**	**Yes**
30	Wilmington Ave./University Dr.	Signalized	A	B	No	A	C	No
31	Central Ave./Del Amo Blvd.	Signalized	C	D	No	C	D	No
32	Wilmington Ave./Del Amo Blvd.	Signalized	B	C	No	C	C	No
33	W. Artesia Blvd./Crenshaw Blvd.	Signalized	**E**	**E**	No	**F**	**F**	No
34	W. 190th St./S. Western Ave.	Signalized	D	D	No	D	D	No
35	W. Artesia Blvd./Vermont Ave.	Signalized	D	D	No	**F**	**F**	No
36	Alameda St./Compton Blvd.	Signalized	B	B	No	C	C	No
37	Alameda St./SR 91 EB Ramps	Signalized	A	A	No	C	D	No

Source: TIS (February 2019)

Study Area Freeway Segments

The study area freeway segment LOS are shown in **Table 3.9-35**, 2035 Weekday Plus Project LOS for Study Area Freeway Segments. The LOS were compared to the Buildout Year (2035) No Project Conditions, and the result shows that there will be a significant traffic impact at the following CMP study area freeway segments, as summarized in **Table 3.9-36**, 2035 Weekday Plus Project Freeway Significant Impacts.

- CMP Station No. 1033 – SR-91 East of Alameda St./Santa Fe Ave., Eastbound (PM peak hour) and Westbound (AM peak hour)
- CMP Station No. 1034 – SR-91 East of Cherry Ave., Southbound (AM peak hour)
- CMP Station No. 1046 – I-110 at Manchester Blvd., Northbound (PM peak hour)
- CMP Station No. 1046 – I-110 at Manchester Blvd., Southbound (AM and PM peak hour)
- CMP Station No. 1047 – I-110 at Slauson Ave., Northbound (PM peak hour)
- CMP Station No. 1047 – I-110 at Slauson Ave., Southbound (PM peak hour)
- CMP Station No. 1066 -- I-405 at Santa Fe Ave., Northbound (AM and PM peak hour)
- CMP Station No. 1066 – I-405 at Santa Fe Ave., Southbound (PM peak hour)
- CMP Station No. 1067 – I-405 South of I-110 at the Carson Scales, Northbound (AM and PM peak hours)
- CMP Station No. 1067 – I-405 South of I-110 at the Carson Scales, Southbound (PM peak hour)
- CMP Station #No.1068 – I-405 North of Inglewood Ave., Northbound (PM Peak hour)

In addition to the CMP monitoring locations, the proposed project would result in significant impacts at the following freeway segments. (Note that the following list includes segments previously identified as significantly impacted under the 2025 scenario; the 2035 analysis was conducted independent of the 2025 scenario and does not assume prior implementation of mitigation. Accordingly, a number of the segments listed below are duplicate listings relative to 2025):

- SR-91 eastbound, Jct. Rte. 110 to Avalon Blvd., during the PM peak hour
- SR-91 eastbound, Avalon Blvd. to Central Ave., during the PM peak hour
- SR-91 eastbound, Central Ave. to Wilmington Ave., during the PM peak hour
- SR-91 eastbound, Wilmington Ave. to Alameda St., during the PM peak hour
- SR-91 eastbound, Alameda St. to Alameda St./Santa Fe Ave., during both peak hours
- SR-91 eastbound, Long Beach Blvd. to Jct. Rte. 710, during the PM peak hour
- SR-91 eastbound, Jct. Rte. 710 to Cherry Ave., during the PM peak hour
- SR-91 eastbound, Paramount Blvd. to Downey Ave., during the PM peak hour

- SR-91 eastbound, Downey Ave. to Jct. Rte. 19, during the PM peak hour
- SR-91 eastbound, Jct. Rte. 19 to Clark Ave., during the PM peak hour
- SR-91 eastbound, Clark Ave. to Bellflower Blvd., during the PM peak hour
- I-110 northbound, Sepulveda Blvd. to Carson St., during the AM peak hour
- I-110 northbound, Carson St. to Torrance/Del Amo Blvd., during both peak hours
- I-110 northbound, Torrance/Del Amo Blvd. to Jct. Rte. 405, during both peak hours
- I-110 northbound, Jct. Rte. 405 to Jct. Rte. 91, during the AM peak hour
- I-110 northbound, Rosecrans Ave. to El Segundo Blvd., during the PM peak hour
- I-110 northbound, El Segundo Blvd. to Jct. Rte. 105, during the PM peak hour
- I-110 northbound, Century Blvd. to Manchester Ave., during the PM peak hour
- I-110 northbound, Florence Ave. to Gage Ave., during the PM peak hour
- I-110 northbound, Slauson Ave. to 51st St., during the PM peak hour
- I-110 northbound, 51st St. to Vernon Ave., during the PM peak hour
- I-110 northbound, Vernon Ave. to Martin Luther King Jr. Blvd., during the PM peak hour
- I-405 northbound, Cherry Ave. to Orange Ave., during the AM peak hour
- I-405 northbound, Orange Ave. to Atlantic Ave., during both peak hours
- I-405 northbound, Atlantic Ave. to Long Beach Blvd, during the AM peak hour
- I-405 northbound, Alameda St. to Wilmington Ave., during both peak hours
- I-405 northbound, Wilmington Ave. to Carson St., during both peak hours
- I-405 northbound, Carson St. to Avalon Blvd., during the both peak hours
- I-405 northbound, Jct. Rte. 110 to Vermont Ave., during both peak hours
- I-405 northbound, Vermont Ave. to Normandie Ave., during the AM peak hour
- I-405 northbound, Normandie Ave. to Western Ave., during the PM peak hour
- I-405 northbound, Western Ave. to Crenshaw Blvd., during both peak hours
- I-405 northbound, Crenshaw Blvd. to Artesia Blvd., during both peak hours
- I-405 northbound, Hawthorne Blvd. to Inglewood Ave., during the PM peak hour
- SR-91 westbound, Jct. Rte. 110 to Avalon Blvd., during both peak hours
- SR-91 westbound, Avalon Blvd. to Central Ave., during the AM peak hour
- SR-91 westbound, Central Ave. to Wilmington Ave., during the AM peak hour
- SR-91 westbound, Wilmington Ave. to Alameda St., during the AM peak hour
- SR-91 westbound, Alameda St. to Alameda St./Santa Fe Ave., during the AM peak hour
- SR-91 westbound, Long Beach Blvd. to Jct. Rte. 710, during the AM peak hour
- SR-91 westbound, Jct. Rte. 710 to Cherry Ave., during both peak hours

- SR-91 westbound, Paramount Blvd. to Downey Ave., during both peak hours
- SR-91 westbound, Downey Ave. to Jct. Rte. 19, during the AM peak hour
- SR-91 westbound, Jct. Rte. 19 to Clark Ave., during the AM peak hour
- SR-91 westbound, Clark Ave. to Bellflower Blvd., during the AM peak hour
- SR-91 westbound, Bellflower Blvd. to Jct. Rte. 605, during the AM peak hour
- I-110 southbound, Sepulveda Blvd. to Carson St., during both peak hours
- I-110 southbound, Carson St. to Torrance/Del Amo Blvd., during both peak hours
- I-110 southbound, Torrance/Del Amo Blvd. to Jct. Rte. 405, during both peak hours
- I-110 southbound, Jct. Rte. 405 to Jct. Rte. 91, during both peak hours
- I-110 southbound, Redondo Beach Blvd. to Rosecrans Ave., during the AM peak hour
- I-110 southbound, Rosecrans Ave. to El Segundo Blvd., during both peak hours
- I-110 southbound, Century Blvd. to Manchester Ave., during both peak hours
- I-110 southbound, Florence Ave. to Gage Ave., during both peak hours
- I-110 southbound, Slauson Ave. to 51st St., during both peak hours
- I-110 southbound, 51st St. to Vernon Ave., during the AM peak hour
- I-110 southbound, Vernon Ave. to Martin Luther King Jr. Blvd., during the AM peak hour
- I-110 southbound, Martin Luther King Jr. Blvd. to Exposition Blvd., during both peak hours
- I-405 southbound, Orange Ave. to Atlantic Ave., during the PM peak hour
- I-405 southbound, Long Beach Blvd to Jct. Rte. 710, during the PM peak hour
- I-405 southbound, Alameda St. to Wilmington Ave., during the PM peak hour
- I-405 southbound, Wilmington Ave. to Carson St., during the PM peak hour
- I-405 southbound, Carson St. to Avalon Blvd., during both peak hours
- I-405 southbound, Jct. Rte. 110 to Vermont Ave., during both peak hours
- I-405 southbound, Vermont Ave. to Normandie Ave., during the PM peak hour
- I-405 southbound, Normandie Ave. to Western Ave., during both peak hours
- I-405 southbound, Western Ave. to Crenshaw Blvd., during both peak hours
- I-405 southbound, Crenshaw Blvd. to Artesia Blvd., during both peak hours
- I-405 southbound, Artesia Blvd. to Hawthorne Blvd., during the AM peak hour
- I-405 southbound, Hawthorne Blvd. to Inglewood Ave., during the AM peak hour
- I-710 southbound, Alondra Blvd. to Jct. Rte. 105, during the AM peak hour

Table 3.9-35
2035 Weekday Plus Project LOS for Study Area Freeway Segments

					Northbound/Eastbound								Southbound/Westbound							
					AM Peak Hour				PM Peak Hour				AM Peak Hour				PM Peak Hour			
ID	CMP Station	Fwy Rte	Post Mile	Location	Demand	Capacity	D/C	LOS	Demand	Capacity	D/C	LOS	Demand	Capacity	D/C	LOS	Demand	Capacity	D/C	LOS
91-1		91	6.344	Jct. Rte. 110 to Avalon Blvd.	7,150	12,000	0.60	C	14,690	12,000	1.22	F(0)	9,450	4,000	2.36	F(3)	6,400	4,000	1.60	F(3)
91-2		91	7.426	Avalon Blvd. to Central Ave.	7,390	10,000	0.74	C	15,090	10,000	1.51	F(3)	9,850	10,000	0.99	E	6,730	10,000	0.67	C
91-3		91	8.435	Central Ave. to Wilmington Ave.	7,540	10,000	0.75	C	15,390	10,000	1.54	F(3)	10,260	10,000	1.03	F(0)	6,970	10,000	0.70	C
91-4		91	9.162	Wilmington Ave. to Alameda St.	7,850	10,000	0.79	D	16,000	10,000	1.60	F(3)	10,560	10,000	1.06	F(0)	7,170	10,000	0.72	C
91-5		91	10.271	Alameda St. to Alameda St./Santa Fe Ave.	8,120	8,000	1.02	F(0)	16,650	8,000	2.08	F(3)	11,060	8,000	1.38	F(2)	7,470	8,000	0.93	D
91-6	1033	91	10.41	Alameda St./Santa Fe Ave. to Long Beach Blvd.	8,420	12,000	0.70	C	17,260	12,000	1.44	F(2)	11,470	12,000	0.96	E	7,780	12,000	0.65	C
91-7		91	11.096	Long Beach Blvd. to Jct. Rte. 710	8,420	12,000	0.70	C	17,240	12,000	1.44	F(2)	11,440	10,000	1.14	F(0)	7,750	10,000	0.78	D
91-8		91	11.681	Jct. Rte. 710 to Cherry Ave.	8,520	10,000	0.85	D	12,240	10,000	1.22	F(0)	13,790	10,000	1.38	F(2)	9,690	10,000	0.97	E
91-9	1034	91	13.094	Cherry Ave. to Paramount Blvd.	8,620	10,000	0.86	D	12,430	10,000	1.24	F(0)	13,980	12,000	1.17	F(0)	9,780	12,000	0.82	D
91-10		91	13.594	Paramount Blvd. to Downey Ave.	8,410	10,000	0.84	D	12,020	10,000	1.20	F(0)	13,570	10,000	1.36	F(2)	9,580	10,000	0.96	E
91-11		91	14.103	Downey Ave. to Jct. Rte. 19	8,400	12,000	0.70	C	12,010	12,000	1.00	E	13,450	10,000	1.35	F(1)	9,470	10,000	0.95	E
91-12		91	14.618	Jct. Rte. 19 to Clark Ave.	7,700	10,000	0.77	C	11,090	10,000	1.11	F(0)	12,520	8,000	1.57	F(3)	8,750	8,000	1.09	F(0)
91-13		91	15.105	Clark Ave. to Bellflower Blvd.	8,200	12,000	0.68	C	11,700	12,000	0.98	E	13,120	10,000	1.31	F(1)	9,250	10,000	0.93	D
91-14		91	15.614	Bellflower Blvd. to Jct. Rte. 605	8,090	12,000	0.67	C	11,570	12,000	0.96	E	13,000	10,000	1.30	F(1)	9,130	10,000	0.91	D
110-1	1045	110	1.23	Channel St. to C St.	4,660	8,000	0.58	C	3,370	8,000	0.42	B	3,740	8,000	0.47	B	4,480	8,000	0.56	C
110-2		110	2.771	C St. to Anaheim St.	4,860	10,000	0.49	B	3,580	10,000	0.36	B	3,940	8,000	0.49	B	4,690	8,000	0.59	C
110-3		110	3.264	Anaheim St. to Jct. Rte. 1	5,280	10,000	0.53	B	3,790	10,000	0.38	B	4,250	10,000	0.43	B	5,100	10,000	0.51	B
110-4		110	4.061	Jct. Rte. 1 to Sepulveda Blvd.	7,360	8,000	0.92	D	5,390	8,000	0.67	C	5,900	8,000	0.74	C	7,160	8,000	0.90	D
110-5		110	5.451	Sepulveda Blvd. to Carson St.	9,500	8,000	1.19	F(0)	6,930	8,000	0.87	D	7,650	8,000	0.96	E	9,330	8,000	1.17	F(0)
110-6		110	7.016	Carson St. to Torrance/Del Amo Blvd.	10,900	8,000	1.36	F(2)	8,030	8,000	1.00	E	8,860	8,000	1.11	F(0)	10,740	8,000	1.34	F(1)
110-7		110	8.028	Torrance/Del Amo Blvd. to Jct. Rte. 405	11,500	8,000	1.44	F(2)	8,430	8,000	1.05	F(0)	9,360	8,000	1.17	F(0)	11,340	8,000	1.42	F(2)
110-8		110	8.775	Jct. Rte. 405 to Jct. Rte. 91	14,100	12,000	1.18	F(0)	10,230	12,000	0.85	D	11,360	8,000	1.42	F(2)	13,840	8,000	1.73	F(3)
110-9		110	9.87	Jct. Rte. 91 to Redondo Beach Blvd.	9,310	12,000	0.78	D	9,570	12,000	0.80	D	10,290	12,000	0.86	D	9,900	12,000	0.83	D
110-10		110	11.239	Redondo Beach Blvd. to Rosecrans Ave.	9,610	11,000	0.87	D	9,970	11,000	0.91	D	10,690	11,000	0.97	E	10,200	11,000	0.93	D
110-11		110	11.891	Rosecrans Ave. to El Segundo Blvd.	10,000	11,000	0.91	D	10,350	11,000	0.94	E	11,190	11,000	1.02	F(0)	10,700	11,000	0.97	E
110-12		110	12.898	El Segundo Blvd. to Jct. Rte. 105	10,180	11,000	0.93	D	10,520	11,000	0.96	E	11,380	13,000	0.88	D	10,890	13,000	0.84	D
110-13		110	13.82	Jct. Rte. 105 to Century Blvd.	11,360	14,000	0.81	D	11,690	14,000	0.84	D	12,560	14,000	0.90	D	12,080	14,000	0.86	D
110-14		110	14.967	Century Blvd. to Manchester Ave.	12,160	12,000	1.01	F(0)	12,490	12,000	1.04	F(0)	13,460	12,000	1.12	F(0)	12,980	12,000	1.08	F(0)
110-15	1046	110	15.976	Manchester Ave. to Florence Ave.	11,860	12,000	0.99	E	12,180	12,000	1.02	F(0)	13,120	12,000	1.09	F(0)	12,540	12,000	1.05	F(0)
110-16		110	16.981	Florence Ave. to Gage Ave.	12,230	12,000	1.02	F(0)	12,540	12,000	1.05	F(0)	13,200	12,000	1.10	F(0)	12,730	12,000	1.06	F(0)
110-17	1047	110	17.514	Gage Ave. to Slauson Ave.	12,130	12,000	1.01	F(0)	12,430	12,000	1.04	F(0)	13,200	12,000	1.10	F(0)	12,630	12,000	1.05	F(0)
110-18		110	17.98	Slauson Ave. to 51st St.	11,730	10,000	1.17	F(0)	11,920	10,000	1.19	F(0)	12,680	10,000	1.27	F(1)	12,110	10,000	1.21	F(0)
110-19		110	18.495	51st St. to Vernon Ave.	11,930	10,000	1.19	F(0)	12,220	10,000	1.22	F(0)	12,880	12,000	1.07	F(0)	12,410	12,000	1.03	F(0)
110-20		110	18.998	Vernon Ave. to Martin Luther King Jr. Blvd.	11,910	12,000	0.99	E	12,200	12,000	1.02	F(0)	12,860	12,000	1.07	F(0)	12,400	12,000	1.03	F(0)
110-21		110	19.502	Martin Luther King Jr. Blvd. to Exposition Blvd.	10,810	12,000	0.90	D	10,990	12,000	0.92	D	11,650	10,000	1.17	F(0)	11,190	10,000	1.12	F(0)
110-22		110	19.996	Exposition Blvd. to Jct. Rte. 10	10,390	12,000	0.87	D	10,660	12,000	0.89	D	11,360	12,000	0.95	E	10,900	12,000	0.91	D
405-1		405	3.324	Lakewood Blvd. to Cherry Ave.	12,630	10,000	1.26	F(1)	10,800	10,000	1.08	F(0)	9,470	10,000	0.95	E	11,820	10,000	1.18	F(0)
405-2		405	4.879	Cherry Ave. to Orange Ave.	13,350	10,000	1.34	F(1)	11,310	10,000	1.13	F(0)	9,870	8,000	1.23	F(0)	12,430	8,000	1.55	F(3)
405-3		405	5.388	Orange Ave. to Atlantic Ave.	13,850	8,000	1.73	F(3)	11,810	8,000	1.48	F(3)	10,280	8,000	1.29	F(1)	12,940	8,000	1.62	F(3)
405-4		405	6.076	Atlantic Ave. to Long Beach Blvd	13,650	8,000	1.71	F(3)	11,610	8,000	1.45	F(2)	10,180	12,000	0.85	D	12,750	12,000	1.06	F(0)
405-5		405	6.34	Long Beach Blvd to Jct. Rte. 710	13,570	12,000	1.13	F(0)	11,530	12,000	0.96	E	10,090	10,000	1.01	F(0)	12,660	10,000	1.27	F(1)
405-6	1066	405	7.596	Jct. Rte. 710 to Alameda St.	12,430	10,000	1.24	F(0)	10,570	10,000	1.06	F(0)	9,210	10,000	0.92	D	11,600	10,000	1.16	F(0)
405-7		405	8.784	Alameda St. to Wilmington Ave.	12,060	10,000	1.21	F(0)	10,190	10,000	1.02	F(0)	8,930	10,000	0.89	D	11,240	10,000	1.12	F(0)
405-8		405	9.556	Wilmington Ave. to Carson St.	11,260	8,000	1.41	F(2)	9,690	8,000	1.21	F(0)	9,530	8,000	1.19	F(0)	11,640	8,000	1.46	F(3)
405-9		405	10.541	Carson St. to Avalon Blvd.	11,060	8,000	1.38	F(2)	9,490	8,000	1.19	F(0)	9,430	8,000	1.18	F(0)	11,440	8,000	1.43	F(2)
405-10	1067	405	11.224	Avalon Blvd. to Jct. Rte. 110	11,860	10,000	1.19	F(0)	10,190	10,000	1.02	F(0)	10,030	10,000	1.00	E	12,240	10,000	1.22	F(0)
405-11		405	12.97	Jct. Rte. 110 to Vermont Ave.	11,600	10,000	1.16	F(0)	10,200	10,000	1.02	F(0)	8,800	8,000	1.10	F(0)	10,770	8,000	1.35	F(1)
405-12		405	13.28	Vermont Ave. to Normandie Ave.	12,100	12,000	1.01	F(0)	10,700	12,000	0.89	D	9,160	10,000	0.92	D	11,230	10,000	1.12	F(0)
405-13		405	13.826	Normandie Ave. to Western Ave.	11,400	10,000	1.14	F(0)	10,000	10,000	1.00	E	8,510	8,000	1.06	F(0)	10,490	8,000	1.31	F(1)
405-14		405	14.398	Western Ave. to Crenshaw Blvd.	10,900	8,000	1.36	F(2)	9,600	8,000	1.20	F(0)	8,210	8,000	1.03	F(0)	10,090	8,000	1.26	F(1)
405-15		405	15.447	Crenshaw Blvd. to Artesia Blvd.	10,670	8,000	1.33	F(1)	9,360	8,000	1.17	F(0)	8,000	8,000	1.00	E	9,870	8,000	1.23	F(0)
405-16		405	16.573	Artesia Blvd. to Hawthorne Blvd.	10,740	10,000	1.07	F(0)	9,420	10,000	0.94	E	8,070	8,000	1.01	F(0)	9,950	8,000	1.24	F(0)
405-17		405	17.589	Hawthorne Blvd. to Inglewood Ave.	11,220	10,000	1.12	F(0)	9,890	10,000	0.99	E	8,460	8,000	1.06	F(0)	10,350	8,000	1.29	F(1)
405-18	1068	405	18.233	Inglewood Ave. to Rosecrans Ave.	11,710	10,000	1.17	F(0)	10,260	10,000	1.03	F(0)	8,840	10,000	0.88	D	10,820	10,000	1.08	F(0)
710-1		710	12.97	Jct. Rte. 91 to Alondra Blvd.	11,490	12,000	0.96	E	17,870	12,000	1.49	F(3)	11,350	12,000	0.95	E	9,070	12,000	0.76	C
710-2		710	13.945	Alondra Blvd. to Jct. Rte. 105	11,880	12,000	0.99	E	18,450	12,000	1.54	F(3)	11,730	12,000	0.98	E	9,350	12,000	0.78	D

Note: D/C is demand-to-capacity ratio.

Table 3.9-36
2035 Weekday Plus Project Freeway Significant Impacts

Northbound/Eastbound

ID	CMP Station	Fwy Rte	Post Mile	Location	2035 No Project				2035 Plus Project				2035 Increase in D/C Ratio with Project		2035 Project Has Significant Impact?	
					AM Peak Hour		PM Peak Hour		AM Peak Hour		PM Peak Hour					
					D/C	LOS	D/C	LOS	D/C	LOS	D/C	LOS	AM	PM	AM	PM
91-1		91	6.344	Jct. Rte. 110 to Avalon Blvd.	0.58	C	1.20	F(0)	0.60	C	1.22	F(0)	0.02	0.02	No	Yes
91-2		91	7.426	Avalon Blvd. to Central Ave.	0.72	C	1.47	F(3)	0.74	C	1.51	F(3)	0.02	0.04	No	Yes
91-3		91	8.435	Central Ave. to Wilmington Ave.	0.73	C	1.49	F(3)	0.75	C	1.54	F(3)	0.02	0.05	No	Yes
91-4		91	9.162	Wilmington Ave. to Alameda St.	0.76	C	1.55	F(3)	0.79	D	1.60	F(3)	0.03	0.05	No	Yes
91-5		91	10.271	Alameda St. to Alameda St./Santa F	0.99	E	2.03	F(3)	1.02	F(0)	2.08	F(3)	0.03	0.05	Yes	Yes
91-6	1033	91	10.41	Alameda St./Santa Fe Ave. to Long	0.68	C	1.40	F(2)	0.70	C	1.44	F(2)	0.02	0.04	No	Yes
91-7		91	11.096	Long Beach Blvd. to Jct. Rte. 710	0.68	C	1.40	F(2)	0.70	C	1.44	F(2)	0.02	0.04	No	Yes
91-8		91	11.681	Jct. Rte. 710 to Cherry Ave.	0.84	D	1.20	F(0)	0.85	D	1.22	F(0)	0.01	0.02	No	Yes
91-9	1034	91	13.094	Cherry Ave. to Paramount Blvd.	0.85	D	1.22	F(0)	0.86	D	1.24	F(0)	0.01	0.02	No	Yes
91-10		91	13.594	Paramount Blvd. to Downey Ave.	0.83	D	1.18	F(0)	0.84	D	1.20	F(0)	0.01	0.02	No	Yes
91-11		91	14.103	Downey Ave. to Jct. Rte. 19	0.69	C	0.98	E	0.70	C	1.00	E	0.01	0.02	No	Yes
91-12		91	14.618	Jct. Rte. 19 to Clark Ave.	0.76	C	1.09	F(0)	0.77	C	1.11	F(0)	0.01	0.02	No	Yes
91-13		91	15.105	Clark Ave. to Bellflower Blvd.	0.68	C	0.96	E	0.68	C	0.98	E	0.00	0.02	No	Yes
91-14		91	15.614	Bellflower Blvd. to Jct. Rte. 605	0.67	C	0.95	E	0.67	C	0.96	E	0.00	0.01	No	No
110-1	1045	110	1.23	Channel St. to C St.	0.56	C	0.40	B	0.58	C	0.42	B	0.02	0.02	No	No
110-2		110	2.771	C St. to Anaheim St.	0.47	B	0.34	A	0.49	B	0.36	B	0.02	0.02	No	No
110-3		110	3.264	Anaheim St. to Jct. Rte. 1	0.51	B	0.36	B	0.53	B	0.38	B	0.02	0.02	No	No
110-4		110	4.061	Jct. Rte. 1 to Sepulveda Blvd.	0.89	D	0.64	C	0.92	D	0.67	C	0.03	0.03	No	No
110-5		110	5.451	Sepulveda Blvd. to Carson St.	1.15	F(0)	0.83	D	1.19	F(0)	0.87	D	0.04	0.04	Yes	No
110-6		110	7.016	Carson St. to Torrance/Del Amo Blvd	1.33	F(1)	0.96	E	1.36	F(2)	1.00	E	0.03	0.04	Yes	Yes
110-7		110	8.028	Torrance/Del Amo Blvd. to Jct. Rte.	1.40	F(2)	1.01	F(0)	1.44	F(2)	1.05	F(0)	0.04	0.04	Yes	Yes
110-8		110	8.775	Jct. Rte. 405 to Jct. Rte. 91	1.15	F(0)	0.83	D	1.18	F(0)	0.85	D	0.03	0.02	Yes	No
110-9		110	9.87	Jct. Rte. 91 to Redondo Beach Blvd.	0.76	C	0.77	C	0.78	D	0.80	D	0.02	0.03	No	No
110-10		110	11.239	Redondo Beach Blvd. to Rosecrans	0.85	D	0.87	D	0.87	D	0.91	D	0.02	0.04	No	No
110-11		110	11.891	Rosecrans Ave. to El Segundo Blvd.	0.89	D	0.91	D	0.91	D	0.94	E	0.02	0.03	No	Yes
110-12		110	12.898	El Segundo Blvd. to Jct. Rte. 105	0.91	D	0.93	D	0.93	D	0.96	E	0.02	0.03	No	Yes
110-13		110	13.82	Jct. Rte. 105 to Century Blvd.	0.80	D	0.81	D	0.81	D	0.84	D	0.01	0.03	No	No
110-14		110	14.967	Century Blvd. to Manchester Ave.	1.00	E	1.02	F(0)	1.01	F(0)	1.04	F(0)	0.01	0.02	No	Yes
110-15	1046	110	15.976	Manchester Ave. to Florence Ave.	0.98	E	0.99	E	0.99	E	1.02	F(0)	0.01	0.03	No	Yes
110-16		110	16.981	Florence Ave. to Gage Ave.	1.01	F(0)	1.03	F(0)	1.02	F(0)	1.05	F(0)	0.01	0.02	No	Yes
110-17	1047	110	17.514	Gage Ave. to Slauson Ave.	1.00	E	1.02	F(0)	1.01	F(0)	1.04	F(0)	0.01	0.02	No	Yes
110-18		110	17.98	Slauson Ave. to 51st St.	1.16	F(0)	1.17	F(0)	1.17	F(0)	1.19	F(0)	0.01	0.02	No	Yes
110-19		110	18.495	51st St. to Vernon Ave.	1.18	F(0)	1.20	F(0)	1.19	F(0)	1.22	F(0)	0.01	0.02	No	Yes
110-20		110	18.998	Vernon Ave. to Martin Luther King Jr.	0.98	E	1.00	E	0.99	E	1.02	F(0)	0.01	0.02	No	Yes
110-21		110	19.502	Martin Luther King Jr. Blvd. to Expos	0.89	D	0.90	D	0.90	D	0.92	D	0.01	0.02	No	No
110-22		110	19.996	Exposition Blvd. to Jct. Rte. 10	0.86	D	0.88	D	0.87	D	0.89	D	0.01	0.01	No	No
405-1		405	3.324	Lakewood Blvd. to Cherry Ave.	1.25	F(0)	1.07	F(0)	1.26	F(1)	1.08	F(0)	0.01	0.01	No	No
405-2		405	4.879	Cherry Ave. to Orange Ave.	1.32	F(1)	1.12	F(0)	1.34	F(1)	1.13	F(0)	0.02	0.01	Yes	No
405-3		405	5.388	Orange Ave. to Atlantic Ave.	1.71	F(3)	1.46	F(3)	1.73	F(3)	1.48	F(3)	0.02	0.02	Yes	Yes
405-4		405	6.076	Atlantic Ave. to Long Beach Blvd	1.69	F(3)	1.44	F(2)	1.71	F(3)	1.45	F(2)	0.02	0.01	Yes	No
405-5		405	6.34	Long Beach Blvd to Jct. Rte. 710	1.12	F(0)	0.95	E	1.13	F(0)	0.96	E	0.01	0.01	No	No
405-6	1066	405	7.596	Jct. Rte. 710 to Alameda St.	1.22	F(0)	1.04	F(0)	1.24	F(0)	1.06	F(0)	0.02	0.02	Yes	Yes
405-7		405	8.784	Alameda St. to Wilmington Ave.	1.18	F(0)	1.00	E	1.21	F(0)	1.02	F(0)	0.03	0.02	Yes	Yes
405-8		405	9.556	Wilmington Ave. to Carson St.	1.38	F(2)	1.19	F(0)	1.41	F(2)	1.21	F(0)	0.03	0.02	Yes	Yes
405-9		405	10.541	Carson St. to Avalon Blvd.	1.35	F(1)	1.16	F(0)	1.38	F(2)	1.19	F(0)	0.03	0.03	Yes	Yes
405-10	1067	405	11.224	Avalon Blvd. to Jct. Rte. 110	1.16	F(0)	1.00	E	1.19	F(0)	1.02	F(0)	0.03	0.02	Yes	Yes
405-11		405	12.97	Jct. Rte. 110 to Vermont Ave.	1.14	F(0)	0.99	E	1.16	F(0)	1.02	F(0)	0.02	0.03	Yes	Yes
405-12		405	13.28	Vermont Ave. to Normandie Ave.	0.99	E	0.87	D	1.01	F(0)	0.89	D	0.02	0.02	Yes	No
405-13		405	13.826	Normandie Ave. to Western Ave.	1.12	F(0)	0.97	E	1.14	F(0)	1.00	E	0.02	0.03	No	Yes
405-14		405	14.398	Western Ave. to Crenshaw Blvd.	1.34	F(1)	1.16	F(0)	1.36	F(2)	1.20	F(0)	0.02	0.04	Yes	Yes
405-15		405	15.447	Crenshaw Blvd. to Artesia Blvd.	1.31	F(1)	1.14	F(0)	1.33	F(1)	1.17	F(0)	0.02	0.03	Yes	Yes
405-16		405	16.573	Artesia Blvd. to Hawthorne Blvd.	1.06	F(0)	0.92	D	1.07	F(0)	0.94	E	0.01	0.02	No	No
405-17		405	17.589	Hawthorne Blvd. to Inglewood Ave.	1.11	F(0)	0.97	E	1.12	F(0)	0.99	E	0.01	0.02	No	Yes
405-18	1068	405	18.233	Inglewood Ave. to Rosecrans Ave.	1.16	F(0)	1.01	F(0)	1.17	F(0)	1.03	F(0)	0.01	0.02	No	Yes
710-1		710	12.97	Jct. Rte. 91 to Alondra Blvd.	0.95	E	1.48	F(3)	0.96	E	1.49	F(3)	0.01	0.01	No	No
710-2		710	13.945	Alondra Blvd. to Jct. Rte. 105	0.98	E	1.53	F(3)	0.99	E	1.54	F(3)	0.01	0.01	No	No

Note: D/C is demand-to-capacity ratio.

Table 3.9-36
2035 Weekday Plus Project Freeway Significant Impacts

Southbound/Westbound

ID	CMP Station	Fwy Rte	Post Mile	Location	2035 No Project				2035 Plus Project				2035 Increase in D/C Ratio with Project		2035 Project Has Significant Impact?	
					AM Peak Hour		PM Peak Hour		AM Peak Hour		PM Peak Hour					
					D/C	LOS	D/C	LOS	D/C	LOS	D/C	LOS	AM	PM	AM	PM
91-1		91	6.344	Jct. Rte. 110 to Avalon Blvd.	2.33	F(3)	1.58	F(3)	2.36	F(3)	1.60	F(3)	0.03	0.02	Yes	Yes
91-2		91	7.426	Avalon Blvd. to Central Ave.	0.95	E	0.65	C	0.99	E	0.67	C	0.04	0.02	Yes	No
91-3		91	8.435	Central Ave. to Wilmington Ave.	0.97	E	0.66	C	1.03	F(0)	0.70	C	0.06	0.04	Yes	No
91-4		91	9.162	Wilmington Ave. to Alameda St.	1.00	E	0.68	C	1.06	F(0)	0.72	C	0.06	0.04	Yes	No
91-5		91	10.271	Alameda St. to Alameda St./Santa Fe	1.31	F(1)	0.89	D	1.38	F(2)	0.93	D	0.07	0.04	Yes	No
91-6	1033	91	10.41	Alameda St./Santa Fe Ave. to Long Be	0.91	D	0.62	C	0.96	E	0.65	C	0.05	0.03	Yes	No
91-7		91	11.096	Long Beach Blvd. to Jct. Rte. 710	1.09	F(0)	0.74	C	1.14	F(0)	0.78	D	0.05	0.04	Yes	No
91-8		91	11.681	Jct. Rte. 710 to Cherry Ave.	1.35	F(1)	0.95	E	1.38	F(2)	0.97	E	0.03	0.02	Yes	Yes
91-9	1034	91	13.094	Cherry Ave. to Paramount Blvd.	1.14	F(0)	0.80	D	1.17	F(0)	0.82	D	0.03	0.02	Yes	No
91-10		91	13.594	Paramount Blvd. to Downey Ave.	1.33	F(1)	0.94	E	1.36	F(2)	0.96	E	0.03	0.02	Yes	Yes
91-11		91	14.103	Downey Ave. to Jct. Rte. 19	1.32	F(1)	0.93	D	1.35	F(1)	0.95	E	0.03	0.02	Yes	No
91-12		91	14.618	Jct. Rte. 19 to Clark Ave.	1.54	F(3)	1.08	F(0)	1.57	F(3)	1.09	F(0)	0.03	0.01	Yes	No
91-13		91	15.105	Clark Ave. to Bellflower Blvd.	1.29	F(1)	0.91	D	1.31	F(1)	0.93	D	0.02	0.02	Yes	No
91-14		91	15.614	Bellflower Blvd. to Jct. Rte. 605	1.28	F(1)	0.90	D	1.30	F(1)	0.91	D	0.02	0.01	Yes	No
110-1	1045	110	1.23	Channel St. to C St.	0.45	B	0.54	B	0.47	B	0.56	C	0.02	0.02	No	No
110-2		110	2.771	C St. to Anaheim St.	0.48	B	0.56	C	0.49	B	0.59	C	0.01	0.03	No	No
110-3		110	3.264	Anaheim St. to Jct. Rte. 1	0.41	B	0.49	B	0.43	B	0.51	B	0.02	0.02	No	No
110-4		110	4.061	Jct. Rte. 1 to Sepulveda Blvd.	0.71	C	0.86	D	0.74	C	0.90	D	0.03	0.04	No	No
110-5		110	5.451	Sepulveda Blvd. to Carson St.	0.93	D	1.13	F(0)	0.96	E	1.17	F(0)	0.03	0.04	Yes	Yes
110-6		110	7.016	Carson St. to Torrance/Del Amo Blvd.	1.08	F(0)	1.30	F(1)	1.11	F(0)	1.34	F(1)	0.03	0.04	Yes	Yes
110-7		110	8.028	Torrance/Del Amo Blvd. to Jct. Rte. 4	1.14	F(0)	1.38	F(2)	1.17	F(0)	1.42	F(2)	0.03	0.04	Yes	Yes
110-8		110	8.775	Jct. Rte. 405 to Jct. Rte. 91	1.39	F(2)	1.69	F(3)	1.42	F(2)	1.73	F(3)	0.03	0.04	Yes	Yes
110-9		110	9.87	Jct. Rte. 91 to Redondo Beach Blvd.	0.83	D	0.80	D	0.86	D	0.83	D	0.03	0.03	No	No
110-10		110	11.239	Redondo Beach Blvd. to Rosecrans A	0.94	E	0.90	D	0.97	E	0.93	D	0.03	0.03	Yes	No
110-11		110	11.891	Rosecrans Ave. to El Segundo Blvd.	0.98	E	0.95	E	1.02	F(0)	0.97	E	0.04	0.02	Yes	Yes
110-12		110	12.898	El Segundo Blvd. to Jct. Rte. 105	0.85	D	0.82	D	0.88	D	0.84	D	0.03	0.02	No	No
110-13		110	13.82	Jct. Rte. 105 to Century Blvd.	0.87	D	0.84	D	0.90	D	0.86	D	0.03	0.02	No	No
110-14		110	14.967	Century Blvd. to Manchester Ave.	1.09	F(0)	1.06	F(0)	1.12	F(0)	1.08	F(0)	0.03	0.02	Yes	Yes
110-15	1046	110	15.976	Manchester Ave. to Florence Ave.	1.07	F(0)	1.03	F(0)	1.09	F(0)	1.05	F(0)	0.02	0.02	Yes	Yes
110-16		110	16.981	Florence Ave. to Gage Ave.	1.08	F(0)	1.04	F(0)	1.10	F(0)	1.06	F(0)	0.02	0.02	Yes	Yes
110-17	1047	110	17.514	Gage Ave. to Slauson Ave.	1.08	F(0)	1.03	F(0)	1.10	F(0)	1.05	F(0)	0.02	0.02	Yes	Yes
110-18		110	17.98	Slauson Ave. to 51st St.	1.24	F(0)	1.19	F(0)	1.27	F(1)	1.21	F(0)	0.03	0.02	Yes	Yes
110-19		110	18.495	51st St. to Vernon Ave.	1.05	F(0)	1.02	F(0)	1.07	F(0)	1.03	F(0)	0.02	0.01	Yes	No
110-20		110	18.998	Vernon Ave. to Martin Luther King Jr.	1.05	F(0)	1.02	F(0)	1.07	F(0)	1.03	F(0)	0.02	0.01	Yes	No
110-21		110	19.502	Martin Luther King Jr. Blvd. to Exposit	1.14	F(0)	1.10	F(0)	1.17	F(0)	1.12	F(0)	0.03	0.02	Yes	Yes
110-22		110	19.996	Exposition Blvd. to Jct. Rte. 10	0.93	D	0.89	D	0.95	E	0.91	D	0.02	0.02	No	No
405-1		405	3.324	Lakewood Blvd. to Cherry Ave.	0.94	E	1.17	F(0)	0.95	E	1.18	F(0)	0.01	0.01	No	No
405-2		405	4.879	Cherry Ave. to Orange Ave.	1.23	F(0)	1.54	F(3)	1.23	F(0)	1.55	F(3)	0.00	0.01	No	No
405-3		405	5.388	Orange Ave. to Atlantic Ave.	1.28	F(1)	1.60	F(3)	1.29	F(1)	1.62	F(3)	0.01	0.02	No	Yes
405-4		405	6.076	Atlantic Ave. to Long Beach Blvd	0.84	D	1.05	F(0)	0.85	D	1.06	F(0)	0.01	0.01	No	No
405-5		405	6.34	Long Beach Blvd to Jct. Rte. 710	1.00	E	1.25	F(0)	1.01	F(0)	1.27	F(1)	0.01	0.02	No	Yes
405-6	1066	405	7.596	Jct. Rte. 710 to Alameda St.	0.91	D	1.14	F(0)	0.92	D	1.16	F(0)	0.01	0.02	No	Yes
405-7		405	8.784	Alameda St. to Wilmington Ave.	0.88	D	1.10	F(0)	0.89	D	1.12	F(0)	0.01	0.02	No	Yes
405-8		405	9.556	Wilmington Ave. to Carson St.	1.18	F(0)	1.43	F(2)	1.19	F(0)	1.46	F(3)	0.01	0.03	No	Yes
405-9		405	10.541	Carson St. to Avalon Blvd.	1.16	F(0)	1.40	F(2)	1.18	F(0)	1.43	F(2)	0.02	0.03	Yes	Yes
405-10	1067	405	11.224	Avalon Blvd. to Jct. Rte. 110	0.99	E	1.20	F(0)	1.00	E	1.22	F(0)	0.01	0.02	No	Yes
405-11		405	12.97	Jct. Rte. 110 to Vermont Ave.	1.06	F(0)	1.31	F(1)	1.10	F(0)	1.35	F(1)	0.04	0.04	Yes	Yes
405-12		405	13.28	Vermont Ave. to Normandie Ave.	0.89	D	1.10	F(0)	0.92	D	1.12	F(0)	0.03	0.02	No	Yes
405-13		405	13.826	Normandie Ave. to Western Ave.	1.04	F(0)	1.29	F(1)	1.06	F(0)	1.31	F(1)	0.02	0.02	Yes	Yes
405-14		405	14.398	Western Ave. to Crenshaw Blvd.	1.00	E	1.24	F(0)	1.03	F(0)	1.26	F(1)	0.03	0.02	Yes	Yes
405-15		405	15.447	Crenshaw Blvd. to Artesia Blvd.	0.98	E	1.21	F(0)	1.00	E	1.23	F(0)	0.02	0.02	Yes	Yes
405-16		405	16.573	Artesia Blvd. to Hawthorne Blvd.	0.99	E	1.23	F(0)	1.01	F(0)	1.24	F(0)	0.02	0.01	Yes	No
405-17		405	17.589	Hawthorne Blvd. to Inglewood Ave.	1.04	F(0)	1.28	F(1)	1.06	F(0)	1.29	F(1)	0.02	0.01	Yes	No
405-18	1068	405	18.233	Inglewood Ave. to Rosecrans Ave.	0.87	D	1.07	F(0)	0.88	D	1.08	F(0)	0.01	0.01	No	No
710-1		710	12.97	Jct. Rte. 91 to Alondra Blvd.	0.93	D	0.74	C	0.95	E	0.76	C	0.02	0.02	No	No
710-2		710	13.945	Alondra Blvd. to Jct. Rte. 105	0.96	E	0.77	C	0.98	E	0.78	D	0.02	0.01	Yes	No

Note: D/C is demand-to-capacity ratio.

Pedestrian Conditions

The proposed project will not result in any significant pedestrian-related impacts under the Buildout scenario since it will not significantly disrupt existing or planned pedestrian facilities,

nor will it significantly conflict with applicable non-automotive transportation plans, guidelines, policies, or standards.

Bicycle Conditions

The proposed project will not result in any significant bicycle-related impacts under the Buildout scenario since it will not significantly disrupt existing or planned bicycle facilities, nor will it significantly conflict with applicable non-automotive transportation plans, guidelines, policies, or standards.

Transit Conditions

The proposed project will not result in any significant transit impacts under the Buildout scenario since it will not significantly disrupt existing or planned transit facilities, nor will it significantly conflict with applicable transit plans, guidelines, policies, or standards. Please also see the analysis of transit impacts presented under the Existing plus Project scenario.

Buildout Year (2035) Sunday Plus Project Conditions

Traffic volumes for the Buildout Year (2035) Sunday Plus Project Conditions were developed by factoring up through 2035 the existing non-event Sunday traffic counts using the LA CMP growth factor, adding in the traffic for a 27,000-seat event, thereby resulting in No Project conditions, and to those resulting volumes adding in the traffic generated by the Master Plan buildout on a Sunday, including the 3,000 additional stadium seats, resulting in plus Project traffic levels.

Intersection LOS

Intersection LOS analysis results under Buildout Year Sunday Plus Project conditions are summarized in **Table 3.9-37**, Buildout Year (2035) Sunday Plus Project Intersection LOS, and **Table 3.9-38**, Buildout Year (2035) Sunday Plus Project Intersection Significant Impacts. As shown on the tables, the LOS for each intersection under Plus Project Conditions was compared to the Buildout Year (2035) No Project Conditions, with resulting significant impact determinations made. The results show that the proposed project would result in significant cumulative impacts at the following four study area intersections:

- No. 3 – Victoria St./Tamcliff Ave. (post-event peak hour)
- No. 9 – University Dr./Toro Center Dr. (pre- and post-event peak hours)
- No. 25 – Avalon Blvd./University Dr. (pre- and post-event peak hours)
- No. 41 – Victoria St./Rainsbury Ave. (pre-event peak hour)

Table 3.9-37
Buildout Year (2035) Sunday Plus Project Intersection LOS

Study ID	Intersection Name	Control Type	Pre-Game Peak Hour		Post-Game Peak Hour	
			V/C Ratio	ICU LOS	V/C Ratio	ICU LOS
1	Victoria St./Drive D	TWSC	0.803	D	0.841	D
2	Victoria St./Tamcliff Ave.	Signalized	0.350	A	0.878	D
3	Victoria St./Birchknoll Dr.	Signalized	0.531	A	1.087	**F**
9	University Dr./Toro Center Dr.	TWSC	0.903	**E**	0.778	C
10	Albertoni St./SR 91 EB Ramps	Signalized	0.639	B	0.367	A
11	Avalon Blvd./SR 91 WB On-Ramp	Signalized	0.711	C	0.834	D
12	Avalon Blvd./Albertoni St.	Signalized	0.873	D	0.650	B
13	Avalon Blvd./Victoria St.	Signalized	0.895	D	0.739	C
14	Central Ave./Artesia Blvd. WB	Signalized	0.598	A	0.621	B
15	Central Ave./Albertoni St./Artesia Blvd. EB	Signalized	0.684	B	0.683	B
16	Central Ave./Victoria St.	Signalized	0.703	C	0.759	C
17	Wilmington Ave./Artesia Blvd. WB	Signalized	0.530	A	0.546	A
18	Wilmington Ave./Artesia Blvd. EB	Signalized	0.403	A	0.692	B
19	Wilmington Ave./Victoria St.	Signalized	0.324	A	0.535	A
22	Figueroa St./190th St./Victoria St.	Signalized	0.653	B	0.466	A
24	Main St./Victoria St.	Signalized	0.631	B	0.481	A
25	Avalon Blvd./University Dr.	Signalized	0.921	**E**	0.742	C
26	Avalon Blvd./Del Amo Blvd.	Signalized	0.825	D	0.794	C
27	Avalon Blvd./I-405 NB Ramps	Signalized	0.703	C	0.522	A
28	Avalon Blvd./I-405 SB Ramps	Signalized	0.658	B	0.523	A
29	Central Ave./University Dr.	Signalized	0.809	D	0.813	D
30	Wilmington Ave./University Dr.	Signalized	0.806	D	0.401	A
31	Central Ave./Del Amo Blvd.	Signalized	0.529	A	0.492	A
32	Wilmington Ave./Del Amo Blvd.	Signalized	0.519	A	0.607	B
38	Avalon Blvd./184th St.	Signalized	0.479	A	0.452	A
39	Avalon Blvd./182nd St.	TWSC	0.379	A	0.719	C
40	Victoria St./Drive C	TWSC	0.888	D	0.484	A
41	Victoria St./Rainsbury Ave.	TWSC	1.019	**F**	0.516	A
42	Avalon Blvd./Harbor Village/Colony Cove	Signalized	0.735	C	0.644	B

Source: TIS (February 2019)

Table 3.9-38
Buildout Year (2035) Sunday Plus Project Intersection Significant Impacts

Study ID	Intersection Name	Control Type	2035 Scenarios					
			Pre-Game Peak Hour			Post-Game Peak Hour		
			Plus 27,000 LOS	Plus 30,000 LOS	Project Has Significant Impact?	Plus 27,000 LOS	Plus 30,000 LOS	Project Has Significant Impact?
1	Victoria St./Drive D	TWSC	A	D	No	A	D	No
2	Victoria St./Tamcliff Ave.	Signalized	A	A	No	B	D	No
3	Victoria St./Birchknoll Dr.	Signalized	A	A	No	B	F	**Yes**
9	University Dr./Toro Center Dr.	TWSC	A	E	**Yes**	B	C	No
10	Albertoni St./SR 91 EB Ramps	Signalized	A	B	No	A	A	No
11	Avalon Blvd./SR 91 WB On-Ramp	Signalized	B	C	No	C	D	No
12	Avalon Blvd./Albertoni St.	Signalized	D	D	No	B	B	No
13	Avalon Blvd./Victoria St.	Signalized	C	D	No	A	C	No
14	Central Ave./Artesia Blvd. WB	Signalized	A	A	No	A	B	No
15	Central Ave./Albertoni St./Artesia Blvd. EB	Signalized	A	B	No	A	B	No
16	Central Ave./Victoria St.	Signalized	C	C	No	A	C	No
17	Wilmington Ave./Artesia Blvd. WB	Signalized	A	A	No	A	A	No
18	Wilmington Ave./Artesia Blvd. EB	Signalized	A	A	No	C	B	No
19	Wilmington Ave./Victoria St.	Signalized	A	A	No	A	A	No
22	Figueroa St./190th St./Victoria St.	Signalized	A	B	No	A	A	No
24	Main St./Victoria St.	Signalized	A	B	No	A	A	No
25	Avalon Blvd./University Dr.	Signalized	B	E	**Yes**	D	C	No
26	Avalon Blvd./Del Amo Blvd.	Signalized	C	D	No	D	C	No
27	Avalon Blvd./I-405 NB Ramps	Signalized	B	C	No	A	A	No
28	Avalon Blvd./I-405 SB Ramps	Signalized	B	B	No	A	A	No
29	Central Ave./University Dr.	Signalized	D	D	No	B	D	No
30	Wilmington Ave./University Dr.	Signalized	C	D	No	A	A	No
31	Central Ave./Del Amo Blvd.	Signalized	A	A	No	A	A	No
32	Wilmington Ave./Del Amo Blvd.	Signalized	A	A	No	A	B	No
38	Avalon Blvd./184th St.	Signalized	A	A	No	A	A	No
39	Avalon Blvd./182nd St.	TWSC	A	A	No	B	C	No
40	Victoria St./Drive C	TWSC	B	D	No	A	A	No
41	Victoria St./Rainsbury Ave.	TWSC	D	F	**Yes**	A	A	No
42	Avalon Blvd./Harbor Village/Colony Cove	Signalized	B	C	No	A	B	No

Source: TIS (February 2019)

Freeway Analysis

As discussed in the Freeway Analysis presented under the Existing Sunday Plus Project Conditions scenario, the proposed Project would not result in significant freeway impacts under Sunday conditions.

Pedestrian Conditions

The additional 3,000-seat event does not impose any significant pedestrian-related impacts since it will not significantly disrupt existing or planned pedestrian facilities nor will it significantly conflict with applicable non-automotive transportation plans, guidelines, policies, or standards. Additionally, Sunday stadium events will include temporary pre-event and post-event control of

intersections by traffic control officers, who will be able to stop traffic to allow pedestrians to safely cross the street when going to and from the stadium (see **Appendix F**); to ensure impacts are less than significant, these project design features also are included as mitigation measures to ensure their implementation. Additionally, implementation of the additional 3,000-seats does not involve any construction activities that would disrupt any existing or planned pedestrian facilities. Therefore, the proposed Project would not result in potentially significant impacts relative to pedestrians under this scenario.

Bicycle Conditions

The additional 3,000-seat event does not impose any significant bicycle-related impacts since the event does not involve any activities that would disrupt any existing or planned bicycle facilities. The additional 3,000-seat event does not involve any construction activities that would disrupt any existing or planned pedestrian facilities. Additionally, Sunday stadium the events will include temporary pre-event and post-event control of intersections by traffic control officers, who will be able to stop traffic to allow bicyclists to safely cross the street when going to and coming from the stadium (see **Appendix F**) and whose presence will make the streets around StubHub Center safer for bicyclists than streets that are unsupervised; to ensure impacts are less than significant, these project design features also are included as mitigation measures to ensure their implementation. Additionally, implementation of the additional 3,000-seats does not involve any construction activities that would disrupt any existing or planned pedestrian facilities. Therefore, the proposed Project would not result in potentially significant impacts relative to pedestrians under this scenario.

Transit Conditions

The additional 3,000-seat event does not impose any significant transit impacts since it would not disrupt any existing or planned transit facilities. The event will complement the transit system by providing shuttle buses from transit centers to the stadium (see **Appendix F**). Please also see the analysis of transit impacts under the Existing plus Project scenario.

Hazards

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

The proposed project would increase the density of development on the campus, though would not change any land uses to an incompatible use that would create hazards. The new developments would result in the addition of new access roads, driveways, and circulation systems within the campus to provide access. The proposed project would not increase hazards due to a design feature, nor would it result in incompatible uses, because it will comply with such building standards and

codes included in the CSU Access Design Guidelines[10], the CSU System-wide TDM Manual[11], California Manual on Uniform Traffic Control Devices[12].

Emergency Access

Would the proposed project result in inadequate emergency access?

All construction, staging, and renovation activities related to buildout of the master plan would occur within the campus boundaries and, as a result, would not affect access, emergency or otherwise, to the campus from adjoining streets. Any increase in traffic attributable to construction activities would be temporary and intermittent and vary according to the phase of construction.

Prior to the commencement of construction, Campus officials will continue the current procedure of coordinating with the State Fire Marshal and local officials to ensure adequate emergency access for all future facilities is retained. If a street or lane closure on non-campus streets becomes necessary, CSUDH would obtain the necessary road closure approvals required by the appropriate jurisdiction. As part of the construction activities, University Police and the Los Angeles County Sheriff's Department Carson substation would be notified of construction schedules and campus road closures prior to construction activities. The project would not impact emergency access during operations. Therefore, neither on-campus and off-campus police protection services nor emergency response would be adversely affected due to road closures or restriction of access either during or after construction. Therefore, impacts associated with emergency access would be less than significant.

Cumulative Impacts

Cumulative impacts to intersections, freeway segments, transit and multi-modal facilities are addressed under Circulation above. Interim year 2025 and Horizon Year 2035 both represent cumulative scenarios for which impacts were analyzed.

The implementation of the proposed project would result in increased intensity of development for the CSU Dominguez Hills campus. Additional development in the areas surrounding the project area over time due to regional growth, consistent with the SCAG RTP/SCS projections for the region, could also impact the transportation and circulation system. New buildings and other facilities will continue to include all necessary ingress and egress for traffic circulation and emergency response and will comply with all applicable requirements for construction and operational emergency access. No contributions to cumulative impacts related to hazards from geometric design features or emergency access would result from the proposed project.

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[10] California State University. 2011. CSU Access Compliance Design Guideline. http://www.calstate.edu/CPDC/ae/gsf/documents/2011-CSU-Access-Design-Guidelines.pdf.

[11] California State University & Nelson & Nygaard. 2012. Transportation Demand Management Manual Final Report. https://calstate.edu/cpdc/Suam/CSU-Systemwide-TDM-Manual-November-2012.pdf.

[12] Caltrans. 2014. California Manual on Uniform Traffic Control Devices. http://www.dot.ca.gov/trafficops/camutcd/.

Mitigation Measures

This section addresses the mitigation recommended to reduce the significant impacts identified under the Interim Year (2025) and Project Buildout (2035) scenarios; no significant impacts were identified under the 2019 Sunday scenario. While the identified improvements are to be implemented generally by the years 2025 and 2035, in those cases where specific mitigation triggers are applicable (e.g., prior to occupancy of buildings that would allow off-campus student enrollment to increase more than 400 FTES), such triggers are provided in **Table 3.9-41**, Mitigation Measure Triggers.

Interim Year (2025) Plus Project Conditions Mitigation

Study Area Intersections

The following mitigation measures are proposed to mitigate the identified significant impacts to study area intersections identified under the Interim Year (2025) Plus Project scenario. The timing of implementation of each measure is illustrated in **Table 3.9-41**, Mitigation Measure Triggers. TIS Exhibit 140 illustrates the improvements; TIS Appendix T illustrates the improvements in aerial photographs.

Intersection #1, Victoria St./Drive D

TRA-1 Prior to occurrence of the triggering event identified in **Table 3.9-41**, CSU shall either provide 100% funding for or install a traffic signal at the intersection, provided, however, the City of Carson agrees to construct or authorize such improvement, as applicable.

With implementation of the above improvement, operations at the intersection would improve to LOS A in the AM peak hour and LOS D in the PM peak hour, thus fully mitigating the project impact.

Because the Project would create a deficiency in the AM peak hour that would not exist in the absence of the Project, the University would be responsible for the full cost of this improvement. However, this intersection is under the jurisdiction and control of the City of Carson and, accordingly, the University cannot guarantee implementation of this improvement. For this reason, implementation of the recommended improvement is considered infeasible and, as such, the identified impact at this intersection is significant and unavoidable.

Intersection #3, Victoria St./Birchknoll Dr.

TRA-2 Prior to occurrence of the triggering event identified in **Table 3.9-41**, CSU shall either provide 100% funding for or install a second westbound left-turn lane at the intersection, provided, however, the City of Carson agrees to construct or authorize such improvement, as applicable.

With implementation of the above improvement, operations at the intersection would improve to LOS B in the AM peak hour and LOS D in the PM peak hour, thus fully mitigating the project impact.

Because the Project would create a deficiency in the AM peak hour that would not exist in the absence of the Project, the University would be responsible for the full cost of this improvement. However, this intersection is under the jurisdiction and control of the City of Carson and, accordingly, the University cannot guarantee implementation of this improvement. For this reason, implementation of the recommended improvement is considered infeasible and, as such, the identified impact at this intersection is significant and unavoidable.

Intersection #5, Central Ave./Charles Willard St.

TRA-3 Prior to occurrence of the triggering event identified in **Table 3.9-41**, CSU shall either provide 100% funding for or install a traffic signal at the intersection, provided, however, the City of Carson agrees to construct or authorize such improvement, as applicable.

With implementation of the above improvement, operations at the intersection would improve to LOS B in the AM peak hour and LOS C in the PM peak hour, thus fully mitigating the project impact.

Because the Project would create a deficiency in the AM peak hour that would not exist in the absence of the Project, the University would be responsible for the full cost of this improvement. However, this intersection is under the jurisdiction and control of the City of Carson and, accordingly, the University cannot guarantee implementation of this improvement. For this reason, implementation of the recommended improvement is considered infeasible and, as such, the identified impact at this intersection is significant and unavoidable.

Intersection #6, Central Ave./Beachey Pl.

TRA-4 Prior to occurrence of the triggering event identified in **Table 3.9-41**, CSU shall either provide 100% funding for or install a traffic signal at the intersection, provided, however, the City of Carson agrees to construct or authorize such improvement, as applicable.

With implementation of the above improvement, operations at the intersection would improve to LOS A in the AM peak hour and LOS A in the PM peak hour, thus fully mitigating the project impact.

Because the Project would create a deficiency in the AM peak hour that would not exist in the absence of the Project, the University would be responsible for the full cost of this improvement. However, this intersection is under the jurisdiction and control of the City of Carson and, accordingly, the University cannot guarantee implementation of this improvement. For this reason, implementation of the recommended improvement is considered infeasible and, as such, the identified impact at this intersection is considered significant and unavoidable.

Intersection #13, Avalon Blvd./Victoria St.

TRA-5 Prior to occurrence of the triggering event identified in **Table 3.9-41**, CSU shall either provide 100% funding for or install the following improvements at the intersection,

provided, however, the City of Carson agrees to construct or authorize such improvements, as applicable:

- Convert eastbound exclusive right-turn lane into an eastbound through/right-turn shared lane
- Convert westbound exclusive right-turn lane into an eastbound through/right-turn shared lane
- Add second northbound left-turn lane

With implementation of the above improvements, operations at the intersection would improve to LOS B in the AM peak hour and to LOS D in the PM peak hour, thus fully mitigating the project impact.

However, these improvements may be physically infeasible due to difficulties with the right of way for the additional northbound left-turn lane because high voltage power lines are located in the median of Avalon Blvd. In addition, this intersection is under the jurisdiction and control of the City of Carson, and, as such, the University cannot guarantee implementation of the improvements. For these reasons, implementation of the recommended improvements is considered infeasible and the identified impact at this intersection is significant and unavoidable.

Intersection #14, Central Ave/Artesia Blvd. WB

TRA-6 Following Board of Trustees approval of the CSUDH 2018 Master Plan, CSU shall support Caltrans in its efforts to obtain funding from the Legislature for the costs to implement the following improvement:

- Add second northbound left-turn lane

With implementation of the above improvements, operations at the intersection would improve to LOS C in the AM peak hour and to LOS B in the PM peak hours, thus fully mitigating the project impact.

However, this improvement may be physically infeasible due to right-of-way constraints. In addition, the overcrossing is under the jurisdiction and control of Caltrans, a different State agency from CSU. Accordingly, CSU shall support Caltrans in its efforts to obtain funding from the Legislature for the costs to implement the improvement. However, since the University cannot guarantee implementation of this improvement, this impact is considered significant and unavoidable.

Intersection #15, Central Ave./Albertoni St./Artesia Blvd. EB

TRA-7 Following Board of Trustees approval of the CSUDH 2018 Master Plan, CSU shall support Caltrans in its efforts to obtain funding from the Legislature for the costs to implement the following improvement:

- Add second eastbound right-turn lane

With implementation of the above improvements, operations at the intersection would improve to LOS D in the AM and to LOS D in the PM peak hours, thus fully mitigating the project impact.

However, this improvement may be physically infeasible due to right-of-way constraints. In addition, the overcrossing is under the jurisdiction and control of Caltrans, a different State agency from CSU. Accordingly, CSU shall support Caltrans in its efforts to obtain funding from the Legislature for the costs to implement the improvement. However, since the University cannot guarantee implementation of this improvement, this impact is considered significant and unavoidable.

Intersection #20, I-110 SB Off-Ramp/190th St.

TRA-8 Following Board of Trustees approval of the CSUDH 2018 Master Plan, CSU shall support Caltrans in its efforts to obtain funding from the Legislature for the costs to implement the following improvement:

- Add a southbound left/right-shared lane

With implementation of the above improvements, operations at the intersection would improve to LOS D in the AM peak hour and to LOS D in the PM peak hours, thus fully mitigating the project impact.

However, this ramp is under the jurisdiction and control of Caltrans, a different State agency from CSU. Accordingly, CSU shall support Caltrans in its efforts to obtain funding from the Legislature for the costs to implement the improvement. However, since the University cannot guarantee implementation of this improvement, this impact is considered significant and unavoidable.

Intersection #22, Figueroa St./190th St./Victoria St.

TRA-9 Prior to occurrence of the triggering event identified in **Table 3.9-41**, CSU shall either provide 100% funding for or construct the following improvements at the intersection, provided, however, the City of Carson agrees to construct or authorize such improvement, as applicable:

- Add a third westbound through lane
- Add a third eastbound through lane
- Re-phase the signal for protected left-turns for the eastbound and westbound phases.

With implementation of the above improvements, operations at the intersection would improve to LOS C in the AM peak hour and to LOS D in the PM peak hours, thus fully mitigating the impact.

Because the Project would create a deficiency in the AM peak hour that would not exist in the absence of the Project, the University would be responsible for the full cost of this improvement. However, this intersection is under the jurisdiction and control of the City of Carson and, accordingly, the University cannot guarantee implementation of this improvement. For this reason, the recommended improvement is considered infeasible and, as such, the identified impact at this intersection is significant and unavoidable.

Intersection #24, Main St./Victoria St.

TRA-10 Prior to occurrence of the triggering event identified in **Table 3.9-41**, CSU shall either provide 100% funding for or construct the following improvements at the intersection, provided, however, the City of Carson agrees to construct or authorize such improvement, as applicable:

- Add a westbound exclusive right-turn lane
- Add a third eastbound through lane

With implementation of the above improvements, operations at the intersection would improve to LOS C in the AM peak hour and to LOS D in the PM peak hours.

Because the Project would create a deficiency in the AM peak hour that would not exist in the absence of the Project, the University would be responsible for the full cost of this improvement. However, this intersection is under the jurisdiction and control of the City of Carson and, accordingly, the University cannot guarantee implementation of this improvement. For this reason, the recommended improvement is considered infeasible and, as such, the identified impact at this intersection is significant and unavoidable.

Study Area Freeway Segments

The following improvements, if implemented, would reduce the project's identified significant impacts to freeway facilities to less than significant. **Table 3.9-39**, Post-Mitigation Level of Service, lists each of the significantly impacted segments, the corresponding recommended improvements, and the level of service with implementation of the improvements.

SR-91 eastbound, Avalon Blvd. to Jct. Rte. 710

TRA-11 Following Board of Trustees approval of the CSUDH 2018 Master Plan, CSU shall support Caltrans in its efforts to obtain funding from the Legislature for the costs to implement the following improvement:

- Add a general purpose lane

Implementation of the above improvement would improve operations at the freeway to LOS D in the AM peak hour and to LOS F(3) in the PM peak hour, thus fully mitigating the project impact.

The Project, in combination with other reasonably foreseeable projects, would have a significant cumulative impact at the freeway. However, this freeway is under the jurisdiction and control of Caltrans, a different State agency from CSU. Accordingly, CSU shall support Caltrans in its efforts to obtain funding from the Legislature for the costs to implement the improvement. However, since the University cannot guarantee implementation of this improvement, this impact is considered significant and unavoidable.

I-110 northbound, Sepulveda Blvd. to Rte. 91

TRA-12 Following Board of Trustees approval of the CSUDH 2018 Master Plan, CSU shall support Caltrans in its efforts to obtain funding from the Legislature for the costs to implement the following improvement:

- Add a general purpose lane

Implementation of the above improvement would improve operations at the freeway to LOS F(0) in the AM peak hour and to LOS D in the PM peak hour, thus fully mitigating the project impact.

The Project, in combination with other reasonably foreseeable projects, would have a significant cumulative impact at the freeway. However, this freeway is under the jurisdiction and control of Caltrans, a different State agency from CSU. Accordingly, CSU shall support Caltrans in its efforts to obtain funding from the Legislature for the costs to implement the improvement. However, since the University cannot guarantee implementation of this improvement, this impact is considered significant and unavoidable.

I-405 northbound, Lakewood Blvd. to Cherry Ave.

TRA-13 Following Board of Trustees approval of the CSUDH 2018 Master Plan, CSU shall support Caltrans in its efforts to obtain funding from the Legislature for the costs to implement the following improvement:

- Add a general purpose lane

Implementation of the above improvement would improve operations at the freeway to LOS E in the AM peak hour and to LOS D in the PM peak hour, thus fully mitigating the project impact.

The Project, in combination with other reasonably foreseeable projects, would have a significant cumulative impact at the freeway. However, this freeway is under the jurisdiction and control of Caltrans, a different State agency from CSU. Accordingly, CSU shall support Caltrans in its efforts to obtain funding from the Legislature for the costs to implement the improvement. However, since the University cannot guarantee implementation of this improvement, this impact is considered significant and unavoidable.

I-405 northbound, Carson St. to Vermont Ave.

TRA-14 Following Board of Trustees approval of the CSUDH 2018 Master Plan, CSU shall support Caltrans in its efforts to obtain funding from the Legislature for the costs to implement the following improvement:

- Add a general purpose lane

Implementation of the above improvement would improve operations at the freeway to LOS F(0) in the AM peak hour and to LOS E in the PM peak hour, thus fully mitigating the project impact.

The Project, in combination with other reasonably foreseeable projects, would have a significant cumulative impact at the freeway. However, this freeway is under the jurisdiction and control of

Caltrans, a different State agency from CSU. Accordingly, CSU shall support Caltrans in its efforts to obtain funding from the Legislature for the costs to implement the improvement. However, since the University cannot guarantee implementation of this improvement, this impact is considered significant and unavoidable.

I-405 northbound, Normandie Ave. to Artesia Blvd.

TRA-15 Following Board of Trustees approval of the CSUDH 2018 Master Plan, CSU shall support Caltrans in its efforts to obtain funding from the Legislature for the costs to implement the following improvement:

- Add a general purpose lane

Implementation of the above improvement would improve operations at the freeway to LOS F(0) in the AM peak hour and to LOS E in the PM peak hour, thus fully mitigating the project impact.

The Project, in combination with other reasonably foreseeable projects, would have a significant cumulative impact at the freeway. However, this freeway is under the jurisdiction and control of Caltrans, a different State agency from CSU. Accordingly, CSU shall support Caltrans in its efforts to obtain funding from the Legislature for the costs to implement the improvement. However, since the University cannot guarantee implementation of this improvement, this impact is considered significant and unavoidable.

SR-91 westbound, Avalon Blvd. to Alameda St./Santa Fe Ave.

TRA-16 Following Board of Trustees approval of the CSUDH 2018 Master Plan, CSU shall support Caltrans in its efforts to obtain funding from the Legislature for the costs to implement the following improvement:

- Add a general purpose lane

Implementation of the above improvement would improve operations at the freeway to LOS F(0) in the AM peak hour and to LOS C in the PM peak hour, thus fully mitigating the project impact.

The Project, in combination with other reasonably foreseeable projects, would have a significant cumulative impact at the freeway. However, this freeway is under the jurisdiction and control of Caltrans, a different State agency from CSU. Accordingly, CSU shall support Caltrans in its efforts to obtain funding from the Legislature for the costs to implement the improvement. However, since the University cannot guarantee implementation of this improvement, this impact is considered significant and unavoidable.

SR-91 westbound, Long Beach Blvd. to Jct. Rte. 710

TRA-17 Following Board of Trustees approval of the CSUDH 2018 Master Plan, CSU shall support Caltrans in its efforts to obtain funding from the Legislature for the costs to implement the following improvement:

- Add a general purpose lane

Implementation of the above improvement would improve operations at the freeway to LOS D in the AM peak hour and to LOS C in the PM peak hour, thus fully mitigating the project impact.

The Project, in combination with other reasonably foreseeable projects, would have a significant cumulative impact at the freeway. However, this freeway is under the jurisdiction and control of Caltrans, a different State agency from CSU. Accordingly, CSU shall support Caltrans in its efforts to obtain funding from the Legislature for the costs to implement the improvement. However, since the University cannot guarantee implementation of this improvement, this impact is considered significant and unavoidable.

I-110 southbound, Sepulveda Blvd. to Jct. Rte. 91

TRA-18 Following Board of Trustees approval of the CSUDH 2018 Master Plan, CSU shall support Caltrans in its efforts to obtain funding from the Legislature for the costs to implement the following improvement:

- Add a general purpose lane

Implementation of the above improvement would improve operations at the freeway to LOS F(0) in the AM peak hour and to LOS F(2) in the PM peak hour, thus fully mitigating the project impact.

The Project, in combination with other reasonably foreseeable projects, would have a significant cumulative impact at the freeway. However, this freeway is under the jurisdiction and control of Caltrans, a different State agency from CSU. Accordingly, CSU shall support Caltrans in its efforts to obtain funding from the Legislature for the costs to implement the improvement. However, since the University cannot guarantee implementation of this improvement, this impact is considered significant and unavoidable.

I-110 southbound, Redondo Beach Blvd. to El Segundo Blvd.

TRA-19 Following Board of Trustees approval of the CSUDH 2018 Master Plan, CSU shall support Caltrans in its efforts to obtain funding from the Legislature for the costs to implement the following improvement:

- Add a general purpose lane

Implementation of the above improvement would improve operations at the freeway to LOS D in the AM peak hour and to LOS D in the PM peak hour, thus fully mitigating the project impact.

The Project, in combination with other reasonably foreseeable projects, would have a significant cumulative impact at the freeway. However, this freeway is under the jurisdiction and control of Caltrans, a different State agency from CSU. Accordingly, CSU shall support Caltrans in its efforts to obtain funding from the Legislature for the costs to implement the improvement. However, since the University cannot guarantee implementation of this improvement, this impact is considered significant and unavoidable.

I-110 southbound, Century Blvd. to Manchester Ave.

TRA-20 Following Board of Trustees approval of the CSUDH 2018 Master Plan, CSU shall support Caltrans in its efforts to obtain funding from the Legislature for the costs to implement the following improvement:

- Add a general purpose lane

Implementation of the above improvement would improve operations at the freeway to LOS E in the AM peak hour and to LOS D in the PM peak hour, thus fully mitigating the project impact.

The Project, in combination with other reasonably foreseeable projects, would have a significant cumulative impact at the freeway. However, this freeway is under the jurisdiction and control of Caltrans, a different State agency from CSU. Accordingly, CSU shall support Caltrans in its efforts to obtain funding from the Legislature for the costs to implement the improvement. However, since the University cannot guarantee implementation of this improvement, this impact is considered significant and unavoidable.

I-110 southbound, Slauson Ave. to 51st St.

TRA-21 Following Board of Trustees approval of the CSUDH 2018 Master Plan, CSU shall support Caltrans in its efforts to obtain funding from the Legislature for the costs to implement the following improvement:

- Add a general purpose lane

Implementation of the above improvement would improve operations at the freeway to LOS F(0) in the AM peak hour and to LOS E in the PM peak hour, thus fully mitigating the project impact.

The Project, in combination with other reasonably foreseeable projects, would have a significant cumulative impact at the freeway. However, this freeway is under the jurisdiction and control of Caltrans, a different State agency from CSU. Accordingly, CSU shall support Caltrans in its efforts to obtain funding from the Legislature for the costs to implement the improvement. However, since the University cannot guarantee implementation of this improvement, this impact is considered significant and unavoidable.

I-405 southbound, Carson St. to Vermont Ave.

TRA-22 Following Board of Trustees approval of the CSUDH 2018 Master Plan, CSU shall support Caltrans in its efforts to obtain funding from the Legislature for the costs to implement the following improvement:

- Add a general purpose lane

Implementation of the above improvement would improve operations at the freeway to LOS E in the AM peak hour and to LOS F(0) in the PM peak hour, thus fully mitigating the project impact.

The Project, in combination with other reasonably foreseeable projects, would have a significant cumulative impact at the freeway. However, this freeway is under the jurisdiction and control of

Caltrans, a different State agency from CSU. Accordingly, CSU shall support Caltrans in its efforts to obtain funding from the Legislature for the costs to implement the improvement. However, since the University cannot guarantee implementation of this improvement, this impact is considered significant and unavoidable.

I-405 southbound, Western Ave. to Crenshaw Blvd.

TRA-23 Following Board of Trustees approval of the CSUDH 2018 Master Plan, CSU shall support Caltrans in its efforts to obtain funding from the Legislature for the costs to implement the following improvement:

- Add a general purpose lane

Implementation of the above improvement would improve operations at the freeway to LOS D in the AM peak hour and to LOS E in the PM peak hour, thus fully mitigating the project impact.

The Project, in combination with other reasonably foreseeable projects, would have a significant cumulative impact at the freeway. However, this freeway is under the jurisdiction and control of Caltrans, a different State agency from CSU. Accordingly, CSU shall support Caltrans in its efforts to obtain funding from the Legislature for the costs to implement the improvement. However, since the University cannot guarantee implementation of this improvement, this impact is considered significant and unavoidable.

Table 3.9-39
Post-Mitigation Level of Service

Northbound/Eastbound

ID	CMP Station	Fwy Rte	Post Mile	Location	2025 Plus Project				Recommended Mitigation Measure	2025 Plus Project with Mitigation			
					AM Peak Hour		PM Peak Hour			AM Peak Hour		PM Peak Hour	
					D/C	LOS	D/C	LOS		D/C	LOS	D/C	LOS
91-2		91	7.426	Avalon Blvd. to Central Ave.	0.73	C	1.49	**F(3)**	Add one mainline lane	0.61	C	1.24	**F(0)**
91-3		91	8.435	Central Ave. to Wilmington Ave.	0.74	C	1.51	**F(3)**	Add one mainline lane	0.62	C	1.26	**F(1)**
91-4		91	9.162	Wilmington Ave. to Alameda St.	0.77	C	1.57	**F(3)**	Add one mainline lane	0.64	C	1.31	**F(1)**
91-5		91	10.271	Alameda St. to Alameda St./Santa Fe	1.00	**E**	2.05	**F(3)**	Add one mainline lane	0.80	D	1.64	**F(3)**
91-6	1033	91	10.41	Alameda St./Santa Fe Ave. to Long B	0.69	C	1.42	**F(2)**	Add one mainline lane	0.59	C	1.21	**F(0)**
91-7		91	11.096	Long Beach Blvd. to Jct. Rte. 710	0.69	C	1.42	**F(2)**	Add one mainline lane	0.59	C	1.21	**F(0)**
110-5		110	5.451	Sepulveda Blvd. to Carson St.	1.18	**F(0)**	0.85	D	Add one mainline lane	0.94	**E**	0.68	C
110-6		110	7.016	Carson St. to Torrance/Del Amo Blvd.	1.35	**F(1)**	0.99	**E**	Add one mainline lane	1.08	**F(0)**	0.79	D
110-7		110	8.028	Torrance/Del Amo Blvd. to Jct. Rte. 4	1.43	**F(2)**	1.04	**F(0)**	Add one mainline lane	1.14	**F(0)**	0.83	D
110-8		110	8.775	Jct. Rte. 405 to Jct. Rte. 91	1.17	**F(0)**	0.84	D	Add one mainline lane	1.00	**E**	0.72	C
405-9		405	10.541	Carson St. to Avalon Blvd.	1.37	**F(2)**	1.18	**F(0)**	Add one mainline lane	1.09	**F(0)**	0.94	**E**
405-10	1067	405	11.224	Avalon Blvd. to Jct. Rte. 110	1.17	**F(0)**	1.02	**F(0)**	Add one mainline lane	0.98	**E**	0.85	D
405-11		405	12.97	Jct. Rte. 110 to Vermont Ave.	1.15	**F(0)**	1.01	**F(0)**	Add one mainline lane	0.96	**E**	0.84	D
405-13		405	13.826	Normandie Ave. to Western Ave.	1.13	**F(0)**	0.99	**E**	Add one mainline lane	0.94	**E**	0.82	D
405-14		405	14.398	Western Ave. to Crenshaw Blvd.	1.35	**F(1)**	1.18	**F(0)**	Add one mainline lane	1.08	**F(0)**	0.95	**E**
405-15		405	15.447	Crenshaw Blvd. to Artesia Blvd.	1.32	**F(1)**	1.16	**F(0)**	Add one mainline lane	1.06	**F(0)**	0.92	D

Note: D/C is demand-to-capacity ratio.

Southbound/Westbound

ID	CMP Station	Fwy Rte	Post Mile	Location	2025 Plus Project				Recommended Mitigation Measure	2025 Plus Project with Mitigation			
					AM Peak Hour		PM Peak Hour			AM Peak Hour		PM Peak Hour	
					D/C	LOS	D/C	LOS		D/C	LOS	D/C	LOS
91-2		91	7.426	Avalon Blvd. to Central Ave.	0.97	**E**	0.66	C	Add one mainline lane	0.80	D	0.55	C
91-3		91	8.435	Central Ave. to Wilmington Ave.	0.99	**E**	0.68	C	Add one mainline lane	0.83	D	0.56	C
91-4		91	9.162	Wilmington Ave. to Alameda St.	1.02	**F(0)**	0.70	C	Add one mainline lane	0.85	D	0.58	C
91-5		91	10.271	Alameda St. to Alameda St./Santa Fe	1.34	**F(1)**	0.91	D	Add one mainline lane	1.07	**F(0)**	0.73	C
91-7		91	11.096	Long Beach Blvd. to Jct. Rte. 710	1.11	**F(0)**	0.76	C	Add one mainline lane	0.93	D	0.63	C
110-5		110	5.451	Sepulveda Blvd. to Carson St.	0.94	**E**	1.15	**F(0)**	Add one mainline lane	0.75	C	0.92	D
110-6		110	7.016	Carson St. to Torrance/Del Amo Blvd.	1.09	**F(0)**	1.33	**F(1)**	Add one mainline lane	0.87	D	1.06	**F(0)**
110-7		110	8.028	Torrance/Del Amo Blvd. to Jct. Rte. 4	1.16	**F(0)**	1.40	**F(2)**	Add one mainline lane	0.92	D	1.12	**F(0)**
110-8		110	8.775	Jct. Rte. 405 to Jct. Rte. 91	1.41	**F(2)**	1.72	**F(3)**	Add one mainline lane	1.12	**F(0)**	1.37	**F(2)**
110-10		110	11.239	Redondo Beach Blvd. to Rosecrans A	0.96	**E**	0.91	D	Add one mainline lane	0.81	D	0.77	C
110-11		110	11.891	Rosecrans Ave. to El Segundo Blvd.	1.00	**E**	0.96	**E**	Add one mainline lane	0.85	D	0.81	D
110-14		110	14.967	Century Blvd. to Manchester Ave.	1.11	**F(0)**	1.07	**F(0)**	Add one mainline lane	0.95	**E**	0.92	D
110-18		110	17.98	Slauson Ave. to 51st St.	1.26	**F(1)**	1.20	**F(0)**	Add one mainline lane	1.05	**F(0)**	1.00	**E**
405-9		405	10.541	Carson St. to Avalon Blvd.	1.17	**F(0)**	1.42	**F(2)**	Add one mainline lane	0.94	**E**	1.13	**F(0)**
405-10	1067	405	11.224	Avalon Blvd. to Jct. Rte. 110	1.01	**F(0)**	1.21	**F(0)**	Add one mainline lane	0.84	D	1.01	**F(0)**
405-11		405	12.97	Jct. Rte. 110 to Vermont Ave.	1.08	**F(0)**	1.33	**F(1)**	Add one mainline lane	0.87	D	1.06	**F(0)**
405-14		405	14.398	Western Ave. to Crenshaw Blvd.	1.02	**F(0)**	1.25	**F(0)**	Add one mainline lane	0.81	D	1.00	**E**

Note: D/C is demand-to-capacity ratio.

Buildout Year (2035) Plus Project Conditions Mitigation

Study Area Intersections

As previously discussed, under the buildout year scenario, the Project would result in significant impacts at 17 intersections. The following mitigation measures, if implemented, would reduce the identified impacts to less than significant. Note that in three cases, noted below, the improvements

proposed to mitigate the significant impacts identified under the 2025 scenario also would mitigate the 2035 impacts and no further mitigation is necessary for those locations.

Intersection #1, Victoria St./Drive D

TRA-24 In the event that, prior to ~~Board of Trustees approval of the CSUDH 2018 Master Plan,~~the triggering event identified in **Table 3.9-41**, the City of Carson adopts a transportation impact fee program, supported by all appropriate technical studies, that would provide for the funding and construction of the following improvements at the subject intersection, CSU shall, prior to occurrence of the triggering event identified in **Table 3.9-41**, pay its fair-share (66%) towards such improvements, provided that such funds shall be used only for the following improvements that ultimately benefit CSU and the local community:

- Add second westbound left-turn lane
- Add second northbound left-turn lane and convert two-way left turn lane into median east of intersection
- Use overlap phasing for the eastbound right-turn movement

With implementation of the above improvements, operations at the intersection would improve to LOS D in the AM peak hour and to LOS E in the PM peak hour, thus fully mitigating the project impact. Note that these improvements are in addition to the improvements identified for this location under the 2025 scenario.

The Project, in combination with other reasonably foreseeable projects, would have a significant cumulative impact at the intersection and, therefore, the project is responsible for a fair-share of the improvement, calculated to be 66%. However, this intersection is under the jurisdiction and control of the City of Carson and as such, the University cannot guarantee implementation of the improvements. Additionally, the City does not currently have an adopted fee program in place to provide the non-CSU portion of the cost of improvements. For these reasons, the identified impact at this intersection is considered significant and unavoidable.

Intersection #3, Victoria Street/Birchknoll Drive – No further mitigation is necessary beyond that identified under the 2025 scenario.

Intersection #5, Central Avenue/Charles Willard Street – No further mitigation is necessary beyond that identified under the 2025 scenario.

Intersection #6, Central Avenue/Project Driveway/Beachey Place – No further mitigation is necessary beyond that identified under the 2025 scenario.

Intersection #9, University Dr./Toro Center Dr.

TRA-25 In the event that, prior to the triggering event identified in **Table 3.9-41**~~Board of Trustees approval of the CSUDH 2018 Master Plan~~, the City of Carson adopts a transportation impact fee program, supported by all appropriate technical studies, that would provide for the funding and construction of the following improvements at the

subject intersection, CSU shall, prior to occurrence of the triggering event identified in **Table 3.9-41**, pay its fair-share (65%) towards such improvements, provided that such funds shall be used only for the following improvements that ultimately benefit CSU and the local community:

- Install traffic signal at intersection with overlap phasing for the westbound and southbound right-turn movements

With implementation of the above improvements, operations at the intersection would improve to LOS D in the AM peak hour and to LOS D in the PM peak hour, thus fully mitigating the project impact.

The Project, in combination with other reasonably foreseeable projects, would have a significant cumulative impact at the intersection and, therefore, the project is responsible for a fair-share of the improvement, calculated to be 65%. However, this intersection is under the jurisdiction and control of the City of Carson and as such, the University cannot guarantee implementation of the improvements. Additionally, the City does not currently have an adopted fee program in place to provide the non-CSU portion of the cost of improvements. For these reasons, the identified impact at this intersection is considered significant and unavoidable.

Intersection #10, Albertoni St./SR-91 EB Ramps

TRA-26 Following Board of Trustees approval of the CSUDH 2018 Master Plan, CSU shall support Caltrans in its efforts to obtain funding from the Legislature for the costs to implement the following improvement:

- Convert the southbound exclusive right-turn lane into a shared left/right-turn shared lane

Implementation of the above improvement would improve operations at the intersection to LOS B in the AM peak hour and to LOS C in the PM peak hour, thus fully mitigating the project impact.

The Project, in combination with other reasonably foreseeable projects, would have a significant cumulative impact at the intersection. However, this ramp is under the jurisdiction and control of Caltrans, a different State agency from CSU. Accordingly, CSU shall support Caltrans in its efforts to obtain funding from the Legislature for the costs to implement the improvement. However, since the University cannot guarantee implementation of this improvement, this impact is considered significant and unavoidable.

Intersection #12, Avalon Blvd./Albertoni St.

TRA-27 In the event that, prior the triggering event identified in **Table 3.9-41**~~to Board of Trustees approval of the CSUDH 2018 Master Plan~~, the City of Carson adopts a transportation impact fee program, supported by all appropriate technical studies, that would provide for the funding and construction of the following improvements at the subject intersection, CSU shall, prior to occurrence of the triggering event identified in **Table 3.9-41**, pay its fair-share (46%) towards such improvements, provided that such funds shall be used only for the following improvements that ultimately benefit CSU and the local community:

- Add second exclusive eastbound right-turn lane

With implementation of the above improvement, operations at the intersection would improve to LOS C in the AM peak hour and to LOS D in the PM peak hour, thus fully mitigating the project impact.

The Project, in combination with other reasonably foreseeable projects, would have a significant cumulative impact at the intersection and, therefore, the project is responsible for a fair-share of the improvement, calculated to be 46%. However, this intersection is under the jurisdiction and control of the City of Carson and, as such, the University cannot guarantee implementation of the improvement. Additionally, the City does not currently have an adopted fee program in place to provide the non-CSU portion of the cost of improvements. For these reasons, the recommended improvement is infeasible and the identified impact at this intersection is considered significant and unavoidable.

Intersection #13, Avalon Blvd./Victoria St.

TRA-28 In the event that, prior to the triggering event identified in **Table 3.9-41** ~~Board of Trustees approval of the CSUDH 2018 Master Plan~~, the City of Carson adopts a transportation impact fee program, supported by all appropriate technical studies, that would provide for the funding and construction of the following improvements at the subject intersection, CSU shall, prior to occurrence of the triggering event identified in **Table 3.9-41**, pay its fair-share (70%) towards such improvements, provided that such funds shall be used only for the following improvements that ultimately benefit CSU and the local community:

- Add third westbound through lane instead of converting the west bound right-turn into a shared through/right-turn lane and move median south

With implementation of the above improvements, operations at the intersection would improve to LOS D in the AM peak hour and to LOS D in the PM peak hour, thus fully mitigating the project impact. Note that these improvements are in addition to the improvements identified for this location under the 2025 scenario.

The Project, in combination with other reasonably foreseeable projects, would have a significant cumulative impact at the intersection and, therefore, the project is responsible for a fair-share of the improvement, calculated to be 70%. However, this intersection is under the jurisdiction and control of the City of Carson and as such, the University cannot guarantee implementation of the improvements. Additionally, the City does not currently have an adopted fee program in place to provide the non-CSU portion of the cost of improvements. For these reasons, the identified impact at this intersection is considered significant and unavoidable.

Intersection #14, Central Ave/Artesia Blvd. WB

TRA-29 Following Board of Trustees approval of the CSUDH 2018 Master Plan, CSU shall support Caltrans in its efforts to obtain funding from the Legislature for the costs to implement the following improvement:

- Add second northbound left-turn lane

With implementation of the above improvements, operations at the intersection would improve to LOS D in the AM peak hour and to LOS C in the PM peak hour, thus fully mitigating the project impact.

The Project, in combination with other reasonably foreseeable projects, would have a significant cumulative impact at the intersection. However, this improvement may be infeasible due to right-of-way constraints. In addition, this overcrossing is under the jurisdiction and control of Caltrans, a different State agency from CSU. Accordingly, CSU shall support Caltrans in its efforts to obtain funding from the Legislature for the costs to implement the improvement. However, since the University cannot guarantee implementation of this improvement, this impact is considered significant and unavoidable.

Intersection #15, Central Ave./Albertoni St./Artesia Blvd. EB

TRA-30 Following Board of Trustees approval of the CSUDH 2018 Master Plan, CSU shall support Caltrans in its efforts to obtain funding from the Legislature for the costs to implement the following improvement:

- Add third southbound through lane

With implementation of the above improvements, operations at the intersection would improve to LOS D in the AM peak hour and to LOS C in the PM peak hour, thus fully mitigating the project impact.

The Project, in combination with other reasonably foreseeable projects, would have a significant cumulative impact at the intersection. However, these improvements may be infeasible due to right-of-way constraints. In addition, this overcrossing is under the jurisdiction and control of Caltrans, a different State agency from CSU. Accordingly, CSU shall support Caltrans in its efforts to obtain funding from the Legislature for the costs to implement the improvement. However, since the University cannot guarantee implementation of this improvement, this impact is considered significant and unavoidable.

Intersection #16, Central Ave./Victoria St.

TRA-31 In the event that, prior to the triggering event identified in **Table 3.9-41** ~~Board of Trustees approval of the CSUDH 2018 Master Plan~~, the City of Carson adopts a transportation impact fee program, supported by all appropriate technical studies, that would provide for the funding and construction of the following improvements at the subject intersection, CSU shall, prior to occurrence of the triggering event identified in **Table 3.9-41**, pay its fair-share (75%) towards such improvements, provided that such

funds shall be used only for the following improvements that ultimately benefit CSU and the local community:

- Add third southbound through lane
- Add eastbound exclusive left-turn lane

With implementation of the above improvements, operations at the intersection would improve to LOS D in the AM peak hour and to LOS D in the PM peak hour, thus fully mitigating the project impact.

The Project, in combination with other reasonably foreseeable projects, would have a significant cumulative impact at the intersection and, therefore, the project is responsible for a fair-share of the improvement, calculated to be 75%. However, these improvements may be physically infeasible due to right-of-way constraints. In addition, this intersection is under the jurisdiction and control of the City of Carson, and, as such, the University cannot guarantee implementation of the improvements. Moreover, the City does not currently have an adopted fee program in place to provide the non-CSU portion of the cost of improvements. For these reasons, the recommended improvements are infeasible and the identified impact at this intersection is considered significant and unavoidable.

Intersection #20, I-110 SB Off-Ramp/190th St.

TRA-32 Following Board of Trustees approval of the CSUDH 2018 Master Plan, CSU shall support Caltrans in its efforts to obtain funding from the Legislature for the costs to implement the following improvement:

- Add a southbound left/right-shared lane

Implementation of the above improvement would improve operations at the intersection to LOS E in the AM peak hour and to LOS F in the PM peak hour (i.e. better than for No Project conditions), thus fully mitigating the impact.

The Project, in combination with other reasonably foreseeable projects, would have a significant cumulative impact at the intersection. However, this ramp is under the jurisdiction and control of Caltrans, a different State agency from CSU. Accordingly, CSU shall support Caltrans in its efforts to obtain funding from the Legislature for the costs to implement the improvement. However, since the University cannot guarantee implementation of this improvement, this impact is considered significant and unavoidable.

Intersection #22, Figueroa St./190th St./Victoria St.

TRA-33 In the event that, prior to the triggering event identified in **Table 3.9-41** ~~Board of Trustees approval of the CSUDH 2018 Master Plan~~, the City of Carson adopts a transportation impact fee program, supported by all appropriate technical studies, that would provide for the funding and construction of the following improvements at the subject intersection, CSU shall, prior to occurrence of the trigger event identified in **Table 3.9-41**, pay its fair-share (72%) towards such improvements, provided that such

funds shall be used only for the following improvements that ultimately benefit CSU and the local community:

- Add second westbound left-turn lane
- Re-phase signal to provide protected left-turns for the eastbound and westbound phases

With implementation of the above improvements, operations at the intersection would improve to LOS D in the AM peak hour and to LOS D in the PM peak hour, thus fully mitigating the project impact.

The Project, in combination with other reasonably foreseeable projects, would have a significant cumulative impact at the intersection and, therefore, the project is responsible for a fair-share of the improvement, calculated to be 72%. However, the addition of a second westbound left-turn lane improvement may be infeasible due to right-of-way constraints. In addition, this intersection is under the jurisdiction and control of the City of Carson, and, as such, the University cannot guarantee implementation of the improvements. Moreover, the City does not currently have an adopted fee program in place to provide the non-CSU portion of the cost of improvements. For these reasons, the recommended improvements are infeasible and the identified impact at this intersection is considered significant and unavoidable.

Intersection #23, Broadway/Victoria St.

TRA-34 In the event that, prior to the triggering event identified in **Table 3.9-41** ~~Board of Trustees approval of the CSUDH 2018 Master Plan~~, the City of Carson adopts a transportation impact fee program, supported by all appropriate technical studies, that would provide for the funding and construction of the following improvements at the subject intersection, CSU shall, prior to occurrence of the triggering event identified in **Table 3.9-41**, pay its fair-share (73%) towards such improvements, provided that such funds shall be used only for the following improvements that ultimately benefit CSU and the local community:

- Add third westbound through lane
- Add eastbound right-turn lane

With implementation of the above improvements, operations at the intersection would improve to LOS B in the AM peak hour and to LOS D in the PM peak hour, thus fully mitigating the project impact. Note that these improvements are in addition to the improvements identified for this location under the 2025 scenario.

The Project, in combination with other reasonably foreseeable projects, would have a significant cumulative impact at the intersection and, therefore, the project is responsible for a fair-share of the improvement, calculated to be 73%. However, this intersection is under the jurisdiction and control of the City of Carson and as such, the University cannot guarantee implementation of the improvements. Additionally, the City does not currently have an adopted fee program in place to provide the non-CSU portion of the cost of improvements. For these reasons, the identified impact at this intersection is considered significant and unavoidable

Intersection #24, Main St./Victoria St.

TRA-35 In the event that, prior to the triggering event identified in **Table 3.9-41** ~~Board of Trustees approval of the CSUDH 2018 Master Plan~~, the City of Carson adopts a transportation impact fee program, supported by all appropriate technical studies, that would provide for the funding and construction of the following improvements at the subject intersection, CSU shall, prior to occurrence of the triggering event identified in **Table 3.9-41**, pay its fair-share (71%) towards such improvements, provided that such funds shall be used only for the following improvements that ultimately benefit CSU and the local community:

- Convert westbound exclusive right-turn lane from the 2025 mitigations into westbound through/right-turn shared lane
- Add eastbound exclusive right-turn

With implementation of the above improvements, operations at the intersection would improve to LOS B in the AM peak hour and to LOS E in the PM peak hour, (i.e. better than for No Project conditions), thus fully mitigating the impact.

The Project, in combination with other reasonably foreseeable projects, would have a significant cumulative impact at the intersection and, therefore, the project is responsible for a fair-share of the improvement, calculated to be 71%. However, the additional eastbound right-turn lane improvement may be infeasible due to right-of-way constraints. In addition, this intersection is under the jurisdiction and control of the City of Carson, and, as such, the University cannot guarantee implementation of the improvements. Moreover, the City does not currently have an adopted fee program in place to provide the non-CSU portion of the cost of improvements. For these reasons, the recommended improvements are infeasible and the identified impact at this intersection is considered significant and unavoidable.

Intersection #26, Avalon Blvd./Del Amo Blvd.

TRA-36 In the event that, prior to the triggering event identified in **Table 3.9-41** ~~Board of Trustees approval of the CSUDH 2018 Master Plan~~, the City of Carson adopts a transportation impact fee program, supported by all appropriate technical studies, that would provide for the funding and construction of the following improvements at the subject intersection, CSU shall, prior to occurrence of the triggering event identified in **Table 3.9-41**, pay its fair-share (55%) towards such improvements, provided that such funds shall be used only for the following improvements that ultimately benefit CSU and the local community:

- Add southbound exclusive right-turn lane
- Convert the westbound exclusive right-turn lane into a westbound through/right-turn shared lane

With implementation of the above improvements, operations at the intersection would improve to LOS D in the AM peak hour and to LOS E in the PM peak hour, (i.e. better than for No Project conditions), thus fully mitigating the impact.

The Project, in combination with other reasonably foreseeable projects, would have a significant cumulative impact at the intersection and, therefore, the project is responsible for a fair-share of the improvement, calculated to be 55%. However, this intersection is under the jurisdiction and control of the City of Carson and, as such, the University cannot guarantee implementation of the improvement. Additionally, the City does not currently have an adopted fee program in place to provide the non-CSU portion of the cost of improvements. For these reasons, the recommended improvement is infeasible and the identified impact at this intersection is considered significant and unavoidable.

Intersection #29, Central Ave./University Dr.

TRA-37 In the event that, prior to the triggering event identified in **Table 3.9-41** ~~Board of Trustees approval of the CSUDH 2018 Master Plan~~, the City of Carson adopts a transportation impact fee program, supported by all appropriate technical studies, that would provide for the funding and construction of the following improvements at the subject intersection, CSU shall, prior to occurrence of the triggering event identified in **Table 3.9-41**, pay its fair-share (61%) towards such improvements, provided that such funds shall be used only for the following improvements that ultimately benefit CSU and the local community:

- Add second eastbound left-turn lane
- Add second southbound right-turn lane

With implementation of the above improvements, operations at the intersection would improve to LOS D in the AM peak hour and to LOS C in the PM peak hour, thus fully mitigating the project impact.

The Project, in combination with other reasonably foreseeable projects, would have a significant cumulative impact at the intersection and, therefore, the project is responsible for a fair-share of the improvement, calculated to be 61%. However, these improvements may be physically infeasible due to right-of-way constraints. In addition, this intersection is under the jurisdiction and control of the City of Carson, and, as such, the University cannot guarantee implementation of the improvements. Moreover, the City does not currently have an adopted fee program in place to provide the non-CSU portion of the cost of improvements. For these reasons, the recommended improvements are infeasible and the identified impact at this intersection is considered significant and unavoidable.

Study Area Freeway Segments

Table 3.9-40, Freeway Mitigation Improvements Needed by 2035, lists the significantly impacted freeway segments identified under the 2035 Buildout scenario, which includes those segments previously identified as significantly impacted under the Interim Year 2025 scenario. The table lists the corresponding improvements that would mitigate the Project's identified significant freeway impacts. As previously noted, the 2035 analysis did not assume implementation of the mitigation measures previously identified under the 2025 scenario.

In addition to those mitigation measures identified under the 2025 scenario, the following mitigation measures would mitigate the remaining significant impacts identified under the 2035 Buildout scenario:

SR-91 eastbound, Jct. Rte. 110 to Avalon Blvd.

TRA-38 Following Board of Trustees approval of the CSUDH 2018 Master Plan, CSU shall support Caltrans in its efforts to obtain funding from the Legislature for the costs to implement the following improvement:

- Add a general purpose lane

Implementation of the above improvement would improve operations at the freeway to LOS B in the AM peak hour and to LOS F(0) in the PM peak hour, thus fully mitigating the project impact.

The Project, in combination with other reasonably foreseeable projects, would have a significant cumulative impact at the segment. However, this freeway is under the jurisdiction and control of Caltrans, a different State agency from CSU. Accordingly, CSU shall support Caltrans in its efforts to obtain funding from the Legislature for the costs to implement the improvement. However, since the University cannot guarantee implementation of this improvement, this impact is considered significant and unavoidable.

SR-91 eastbound, Jct. Rte. 710 to Bellflower Blvd.

TRA-39 Following Board of Trustees approval of the CSUDH 2018 Master Plan, CSU shall support Caltrans in its efforts to obtain funding from the Legislature for the costs to implement the following improvement:

- Add a general purpose lane

Implementation of the above improvement would improve operations at the freeway to LOS C in the AM peak hour and to LOS F(0) in the PM peak hour, thus fully mitigating the project impact.

The Project, in combination with other reasonably foreseeable projects, would have a significant cumulative impact at the segment. However, this freeway is under the jurisdiction and control of Caltrans, a different State agency from CSU. Accordingly, CSU shall support Caltrans in its efforts to obtain funding from the Legislature for the costs to implement the improvement. However, since the University cannot guarantee implementation of this improvement, this impact is considered significant and unavoidable.

I-110 northbound, Rosecrans Ave. to Jct. Rte 105

TRA-40 Following Board of Trustees approval of the CSUDH 2018 Master Plan, CSU shall support Caltrans in its efforts to obtain funding from the Legislature for the costs to implement the following improvement:

- Add a general purpose lane

Implementation of the above improvement would improve operations at the freeway to LOS D in the AM peak hour and to LOS D in the PM peak hour, thus fully mitigating the project impact.

The Project, in combination with other reasonably foreseeable projects, would have a significant cumulative impact at the segment. However, this freeway is under the jurisdiction and control of Caltrans, a different State agency from CSU. Accordingly, CSU shall support Caltrans in its efforts to obtain funding from the Legislature for the costs to implement the improvement. However, since the University cannot guarantee implementation of this improvement, this impact is considered significant and unavoidable.

I-110 northbound, Century Blvd. to Martin Luther King Jr. Blvd.

TRA-41 Following Board of Trustees approval of the CSUDH 2018 Master Plan, CSU shall support Caltrans in its efforts to obtain funding from the Legislature for the costs to implement the following improvement:

- Add a general purpose lane

Implementation of the above improvement would improve operations at the freeway to LOS E in the AM peak hour and to LOS F(0) in the PM peak hour, thus fully mitigating the project impact.

The Project, in combination with other reasonably foreseeable projects, would have a significant cumulative impact at the segment. However, this freeway is under the jurisdiction and control of Caltrans, a different State agency from CSU. Accordingly, CSU shall support Caltrans in its efforts to obtain funding from the Legislature for the costs to implement the improvement. However, since the University cannot guarantee implementation of this improvement, this impact is considered significant and unavoidable.

I-405 northbound, Cherry Ave. to Long Beach Blvd.

TRA-42 Following Board of Trustees approval of the CSUDH 2018 Master Plan, CSU shall support Caltrans in its efforts to obtain funding from the Legislature for the costs to implement the following improvement:

- Add a general purpose lane

Implementation of the above improvement would improve operations at the freeway to LOS F(2) in the AM peak hour and to LOS F(0) in the PM peak hour, thus fully mitigating the project impact.

The Project, in combination with other reasonably foreseeable projects, would have a significant cumulative impact at the segment. However, this freeway is under the jurisdiction and control of Caltrans, a different State agency from CSU. Accordingly, CSU shall support Caltrans in its efforts to obtain funding from the Legislature for the costs to implement the improvement. However, since the University cannot guarantee implementation of this improvement, this impact is considered significant and unavoidable.

I-405 northbound, Jct. Rte. 710 to Carson St.

TRA-43 Following Board of Trustees approval of the CSUDH 2018 Master Plan, CSU shall support Caltrans in its efforts to obtain funding from the Legislature for the costs to implement the following improvement:

- Add a general purpose lane

Implementation of the above improvement would improve operations at the freeway to LOS F(0) in the AM peak hour and to LOS E in the PM peak hour, thus fully mitigating the project impact.

The Project, in combination with other reasonably foreseeable projects, would have a significant cumulative impact at the segment. However, this freeway is under the jurisdiction and control of Caltrans, a different State agency from CSU. Accordingly, CSU shall support Caltrans in its efforts to obtain funding from the Legislature for the costs to implement the improvement. However, since the University cannot guarantee implementation of this improvement, this impact is considered significant and unavoidable.

I-405 northbound, Vermont Ave. to Normandie Ave.

TRA-44 Following Board of Trustees approval of the CSUDH 2018 Master Plan, CSU shall support Caltrans in its efforts to obtain funding from the Legislature for the costs to implement the following improvement:

- Add a general purpose lane

Implementation of the above improvement would improve operations at the freeway to LOS D in the AM peak hour and to LOS C in the PM peak hour, thus fully mitigating the project impact.

The Project, in combination with other reasonably foreseeable projects, would have a significant cumulative impact at the segment. However, this freeway is under the jurisdiction and control of Caltrans, a different State agency from CSU. Accordingly, CSU shall support Caltrans in its efforts to obtain funding from the Legislature for the costs to implement the improvement. However, since the University cannot guarantee implementation of this improvement, this impact is considered significant and unavoidable.

I-405 northbound, Hawthorne Blvd. to Rosecrans Ave.

TRA-45 Following Board of Trustees approval of the CSUDH 2018 Master Plan, CSU shall support Caltrans in its efforts to obtain funding from the Legislature for the costs to implement the following improvement:

- Add a general purpose lane

Implementation of the above improvement would improve operations at the freeway to LOS E in the AM peak hour and to LOS D in the PM peak hour, thus fully mitigating the project impact.

The Project, in combination with other reasonably foreseeable projects, would have a significant cumulative impact at the segment. However, this freeway is under the jurisdiction and control of

Caltrans, a different State agency from CSU. Accordingly, CSU shall support Caltrans in its efforts to obtain funding from the Legislature for the costs to implement the improvement. However, since the University cannot guarantee implementation of this improvement, this impact is considered significant and unavoidable.

SR-91 westbound, Jct. Rte. 110 to Avalon Blvd.

TRA-46 Following Board of Trustees approval of the CSUDH 2018 Master Plan, CSU shall support Caltrans in its efforts to obtain funding from the Legislature for the costs to implement the following improvement:

- Add a general purpose lane

Implementation of the above improvement would improve operations at the freeway to LOS F(3) in the AM peak hour and to LOS F(0) in the PM peak hour, thus fully mitigating the project impact.

The Project, in combination with other reasonably foreseeable projects, would have a significant cumulative impact at the segment. However, this freeway is under the jurisdiction and control of Caltrans, a different State agency from CSU. Accordingly, CSU shall support Caltrans in its efforts to obtain funding from the Legislature for the costs to implement the improvement. However, since the University cannot guarantee implementation of this improvement, this impact is considered significant and unavoidable.

SR-91 westbound, Alameda St./Santa Fe Ave. to Long Beach Blvd.

TRA-47 Following Board of Trustees approval of the CSUDH 2018 Master Plan, CSU shall support Caltrans in its efforts to obtain funding from the Legislature for the costs to implement the following improvement:

- Add a general purpose lane

Implementation of the above improvement would improve operations at the freeway to LOS D in the AM peak hour and to LOS C in the PM peak hour, thus fully mitigating the project impact.

The Project, in combination with other reasonably foreseeable projects, would have a significant cumulative impact at the segment. However, this freeway is under the jurisdiction and control of Caltrans, a different State agency from CSU. Accordingly, CSU shall support Caltrans in its efforts to obtain funding from the Legislature for the costs to implement the improvement. However, since the University cannot guarantee implementation of this improvement, this impact is considered significant and unavoidable.

SR-91 westbound, Jct. Rte. 710. to Jct. Rte. 605.

TRA-48 Following Board of Trustees approval of the CSUDH 2018 Master Plan, CSU shall support Caltrans in its efforts to obtain funding from the Legislature for the costs to implement the following improvement:

- Add a general purpose lane

Implementation of the above improvement would improve operations at the freeway to LOS F(0) in the AM peak hour and to LOS D in the PM peak hour, thus fully mitigating the project impact.

The Project, in combination with other reasonably foreseeable projects, would have a significant cumulative impact at the segment. However, this freeway is under the jurisdiction and control of Caltrans, a different State agency from CSU. Accordingly, CSU shall support Caltrans in its efforts to obtain funding from the Legislature for the costs to implement the improvement. However, since the University cannot guarantee implementation of this improvement, this impact is considered significant and unavoidable.

I-110 southbound, Manchester Ave. to Slauson Ave.

TRA-49 Following Board of Trustees approval of the CSUDH 2018 Master Plan, CSU shall support Caltrans in its efforts to obtain funding from the Legislature for the costs to implement the following improvement:

- Add a general purpose lane

Implementation of the above improvement would improve operations at the freeway to LOS E in the AM peak hour and to LOS D in the PM peak hour, thus fully mitigating the project impact.

The Project, in combination with other reasonably foreseeable projects, would have a significant cumulative impact at the segment. However, this freeway is under the jurisdiction and control of Caltrans, a different State agency from CSU. Accordingly, CSU shall support Caltrans in its efforts to obtain funding from the Legislature for the costs to implement the improvement. However, since the University cannot guarantee implementation of this improvement, this impact is considered significant and unavoidable.

I-110 southbound, 51st St. to Exposition Blvd.

TRA-50 Following Board of Trustees approval of the CSUDH 2018 Master Plan, CSU shall support Caltrans in its efforts to obtain funding from the Legislature for the costs to implement the following improvement:

- Add a general purpose lane

Implementation of the above improvement would improve operations at the freeway to LOS E in the AM peak hour and to LOS D in the PM peak hour, thus fully mitigating the project impact.

The Project, in combination with other reasonably foreseeable projects, would have a significant cumulative impact at the segment. However, this freeway is under the jurisdiction and control of Caltrans, a different State agency from CSU. Accordingly, CSU shall support Caltrans in its efforts to obtain funding from the Legislature for the costs to implement the improvement. However, since the University cannot guarantee implementation of this improvement, this impact is considered significant and unavoidable.

I-405 southbound, Orange Ave. to Atlantic Ave.

TRA-51 Following Board of Trustees approval of the CSUDH 2018 Master Plan, CSU shall support Caltrans in its efforts to obtain funding from the Legislature for the costs to implement the following improvement:

- Add a general purpose lane

Implementation of the above improvement would improve operations at the freeway to LOS F(0) in the AM peak hour and to LOS F(1) in the PM peak hour, thus fully mitigating the project impact.

The Project, in combination with other reasonably foreseeable projects, would have a significant cumulative impact at the segment. However, this freeway is under the jurisdiction and control of Caltrans, a different State agency from CSU. Accordingly, CSU shall support Caltrans in its efforts to obtain funding from the Legislature for the costs to implement the improvement. However, since the University cannot guarantee implementation of this improvement, this impact is considered significant and unavoidable.

I-405 southbound, Long Beach Blvd. to Inglewood Ave.

TRA-52 Following Board of Trustees approval of the CSUDH 2018 Master Plan, CSU shall support Caltrans in its efforts to obtain funding from the Legislature for the costs to implement the following improvement:

- Add a general purpose lane

Implementation of the above improvement would improve operations at the freeway to LOS E in the AM peak hour and to LOS F(0) in the PM peak hour, thus fully mitigating the project impact.

The Project, in combination with other reasonably foreseeable projects, would have a significant cumulative impact at the segment. However, this freeway is under the jurisdiction and control of Caltrans, a different State agency from CSU. Accordingly, CSU shall support Caltrans in its efforts to obtain funding from the Legislature for the costs to implement the improvement. However, since the University cannot guarantee implementation of this improvement, this impact is considered significant and unavoidable.

I-710 southbound, Alondra Blvd. to Jct. Rte. 105

TRA-53 Following Board of Trustees approval of the CSUDH 2018 Master Plan, CSU shall support Caltrans in its efforts to obtain funding from the Legislature for the costs to implement the following improvement:

- Add a general purpose lane

Implementation of the above improvement would improve operations at the freeway to LOS D in the AM peak hour and to LOS C in the PM peak hour, thus fully mitigating the project impact.

The Project, in combination with other reasonably foreseeable projects, would have a significant cumulative impact at the segment. However, this freeway is under the jurisdiction and control of

Caltrans, a different State agency from CSU. Accordingly, CSU shall support Caltrans in its efforts to obtain funding from the Legislature for the costs to implement the improvement. However, since the University cannot guarantee implementation of this improvement, this impact is considered significant and unavoidable.

Table 3.9-40
Freeway Mitigation Improvements Needed by 2035

Northbound/Eastbound

ID	CMP Station	Fwy Rte	Post Mile	Location	2035 Plus Project				Recommended Mitigation Measure	2035 Plus Project with Mitigation			
					AM Peak Hour		PM Peak Hour			AM Peak Hour		PM Peak Hour	
					D/C	LOS	D/C	LOS		D/C	LOS	D/C	LOS
91-1		91	6.344	Jct. Rte. 110 to Avalon Blvd.	0.60	C	1.22	**F(0)**	Add one mainline lane	0.51	B	1.05	**F(0)**
91-2		91	7.426	Avalon Blvd. to Central Ave.	0.74	C	1.51	**F(3)**	Add one mainline lane	0.62	C	1.26	**F(1)**
91-3		91	8.435	Central Ave. to Wilmington Ave.	0.75	C	1.54	**F(3)**	Add one mainline lane	0.63	C	1.28	**F(1)**
91-4		91	9.162	Wilmington Ave. to Alameda St.	0.79	D	1.60	**F(3)**	Add one mainline lane	0.65	C	1.33	**F(1)**
91-5		91	10.271	Alameda St. to Alameda St./Santa Fe	1.02	**F(0)**	2.08	**F(3)**	Add one mainline lane	0.81	D	1.67	**F(3)**
91-6	1033	91	10.41	Alameda St./Santa Fe Ave. to Long B	0.70	C	1.44	**F(2)**	Add one mainline lane	0.60	C	1.23	**F(0)**
91-7		91	11.096	Long Beach Blvd. to Jct. Rte. 710	0.70	C	1.44	**F(2)**	Add one mainline lane	0.60	C	1.23	**F(0)**
91-8		91	11.681	Jct. Rte. 710 to Cherry Ave.	0.85	D	1.22	**F(0)**	Add one mainline lane	0.71	C	1.02	**F(0)**
91-9	1034	91	13.094	Cherry Ave. to Paramount Blvd.	0.86	D	1.24	**F(0)**	Add one mainline lane	0.72	C	1.04	**F(0)**
91-10		91	13.594	Paramount Blvd. to Downey Ave.	0.84	D	1.20	**F(0)**	Add one mainline lane	0.70	C	1.00	**E**
91-11		91	14.103	Downey Ave. to Jct. Rte. 19	0.70	C	1.00	**E**	Add one mainline lane	0.60	C	0.86	D
91-12		91	14.618	Jct. Rte. 19 to Clark Ave.	0.77	C	1.11	**F(0)**	Add one mainline lane	0.64	C	0.92	D
91-13		91	15.105	Clark Ave. to Bellflower Blvd.	0.68	C	0.98	**E**	Add one mainline lane	0.59	C	0.84	D
110-5		110	5.451	Sepulveda Blvd. to Carson St.	1.19	**F(0)**	0.87	D	Add one mainline lane	0.95	**E**	0.69	C
110-6		110	7.016	Carson St. to Torrance/Del Amo Blvd	1.36	**F(2)**	1.00	**E**	Add one mainline lane	1.09	**F(0)**	0.80	D
110-7		110	8.028	Torrance/Del Amo Blvd. to Jct. Rte. 4	1.44	**F(2)**	1.05	**F(0)**	Add one mainline lane	1.15	**F(0)**	0.84	D
110-8		110	8.775	Jct. Rte. 405 to Jct. Rte. 91	1.18	**F(0)**	0.85	D	Add one mainline lane	1.01	**F(0)**	0.73	C
110-11		110	11.891	Rosecrans Ave. to El Segundo Blvd.	0.91	D	0.94	**E**	Add one mainline lane	0.77	C	0.80	D
110-12		110	12.898	El Segundo Blvd. to Jct. Rte. 105	0.93	D	0.96	**E**	Add one mainline lane	0.78	D	0.81	D
110-14		110	14.967	Century Blvd. to Manchester Ave.	1.01	**F(0)**	1.04	**F(0)**	Add one mainline lane	0.87	D	0.89	D
110-15	1046	110	15.976	Manchester Ave. to Florence Ave.	0.99	**E**	1.02	**F(0)**	Add one mainline lane	0.85	D	0.87	D
110-16		110	16.981	Florence Ave. to Gage Ave.	1.02	**F(0)**	1.05	**F(0)**	Add one mainline lane	0.87	D	0.90	D
110-17	1047	110	17.514	Gage Ave. to Slauson Ave.	1.01	**F(0)**	1.04	**F(0)**	Add one mainline lane	0.87	D	0.89	D
110-18		110	17.98	Slauson Ave. to 51st St.	1.17	**F(0)**	1.19	**F(0)**	Add one mainline lane	0.98	**E**	0.99	**E**
110-19		110	18.495	51st St. to Vernon Ave.	1.19	**F(0)**	1.22	**F(0)**	Add one mainline lane	0.99	**E**	1.02	**F(0)**
110-20		110	18.998	Vernon Ave. to Martin Luther King Jr.	0.99	**E**	1.02	**F(0)**	Add one mainline lane	0.85	D	0.87	D
405-2		405	4.879	Cherry Ave. to Orange Ave.	1.34	**F(1)**	1.13	**F(0)**	Add one mainline lane	1.11	**F(0)**	0.94	**E**
405-3		405	5.388	Orange Ave. to Atlantic Ave.	1.73	**F(3)**	1.48	**F(3)**	Add one mainline lane	1.39	**F(2)**	1.18	**F(0)**
405-4		405	6.076	Atlantic Ave. to Long Beach Blvd	1.71	**F(3)**	1.45	**F(2)**	Add one mainline lane	1.37	**F(2)**	1.16	**F(0)**
405-6	1066	405	7.596	Jct. Rte. 710 to Alameda St.	1.24	**F(0)**	1.06	**F(0)**	Add one mainline lane	1.04	**F(0)**	0.88	D
405-7		405	8.784	Alameda St. to Wilmington Ave.	1.21	**F(0)**	1.02	**F(0)**	Add one mainline lane	1.01	**F(0)**	0.85	D
405-8		405	9.556	Wilmington Ave. to Carson St.	1.41	**F(2)**	1.21	**F(0)**	Add one mainline lane	1.13	**F(0)**	0.97	**E**
405-9		405	10.541	Carson St. to Avalon Blvd.	1.38	**F(2)**	1.19	**F(0)**	Add one mainline lane	1.11	**F(0)**	0.95	**E**
405-10	1067	405	11.224	Avalon Blvd. to Jct. Rte. 110	1.19	**F(0)**	1.02	**F(0)**	Add one mainline lane	0.99	**E**	0.85	D
405-11		405	12.97	Jct. Rte. 110 to Vermont Ave.	1.16	**F(0)**	1.02	**F(0)**	Add one mainline lane	0.97	**E**	0.85	D
405-12		405	13.28	Vermont Ave. to Normandie Ave.	1.01	**F(0)**	0.89	D	Add one mainline lane	0.86	D	0.76	C
405-13		405	13.826	Normandie Ave. to Western Ave.	1.14	**F(0)**	1.00	**E**	Add one mainline lane	0.95	**E**	0.83	D
405-14		405	14.398	Western Ave. to Crenshaw Blvd.	1.36	**F(2)**	1.20	**F(0)**	Add one mainline lane	1.09	**F(0)**	0.96	**E**
405-15		405	15.447	Crenshaw Blvd. to Artesia Blvd.	1.33	**F(1)**	1.17	**F(0)**	Add one mainline lane	1.07	**F(0)**	0.94	**E**
405-17		405	17.589	Hawthorne Blvd. to Inglewood Ave.	1.12	**F(0)**	0.99	**E**	Add one mainline lane	0.94	**E**	0.82	D
405-18	1068	405	18.233	Inglewood Ave. to Rosecrans Ave.	1.17	**F(0)**	1.03	**F(0)**	Add one mainline lane	0.98	**E**	0.86	D

Note: D/C is demand-to-capacity ratio.

Southbound/Westbound

ID	CMP Station	Fwy Rte	Post Mile	Location	2035 No Project				Recommended Mitigation Measure	2035 Plus Project			
					AM Peak Hour		PM Peak Hour			AM Peak Hour		PM Peak Hour	
					D/C	LOS	D/C	LOS		D/C	LOS	D/C	LOS
91-1		91	6.344	Jct. Rte. 110 to Avalon Blvd.	2.36	**F(3)**	1.60	**F(3)**	Add one mainline lane	1.58	**F(3)**	1.07	**F(0)**
91-2		91	7.426	Avalon Blvd. to Central Ave.	0.99	**E**	0.67	C	Add one mainline lane	0.82	D	0.56	C
91-3		91	8.435	Central Ave. to Wilmington Ave.	1.03	**F(0)**	0.70	C	Add one mainline lane	0.86	D	0.58	C
91-4		91	9.162	Wilmington Ave. to Alameda St.	1.06	**F(0)**	0.72	C	Add one mainline lane	0.88	D	0.60	C
91-5		91	10.271	Alameda St. to Alameda St./Santa Fe	1.38	**F(2)**	0.93	D	Add one mainline lane	1.11	**F(0)**	0.75	C
91-6	1033	91	10.41	Alameda St./Santa Fe Ave. to Long B	0.96	**E**	0.65	C	Add one mainline lane	0.82	D	0.56	C
91-7		91	11.096	Long Beach Blvd. to Jct. Rte. 710	1.14	**F(0)**	0.78	D	Add one mainline lane	0.95	**E**	0.65	C
91-8		91	11.681	Jct. Rte. 710 to Cherry Ave.	1.38	**F(2)**	0.97	**E**	Add one mainline lane	1.15	**F(0)**	0.81	D
91-9	1034	91	13.094	Cherry Ave. to Paramount Blvd.	1.17	**F(0)**	0.82	D	Add one mainline lane	1.00	**E**	0.70	C
91-10		91	13.594	Paramount Blvd. to Downey Ave.	1.36	**F(2)**	0.96	**E**	Add one mainline lane	1.13	**F(0)**	0.80	D
91-11		91	14.103	Downey Ave. to Jct. Rte. 19	1.35	**F(1)**	0.95	**E**	Add one mainline lane	1.12	**F(0)**	0.79	D
91-12		91	14.618	Jct. Rte. 19 to Clark Ave.	1.57	**F(3)**	1.09	**F(0)**	Add one mainline lane	1.25	**F(0)**	0.88	D
91-13		91	15.105	Clark Ave. to Bellflower Blvd.	1.31	**F(1)**	0.93	D	Add one mainline lane	1.09	**F(0)**	0.77	C
91-14		91	15.614	Bellflower Blvd. to Jct. Rte. 605	1.30	**F(1)**	0.91	D	Add one mainline lane	1.08	**F(0)**	0.76	C
110-5		110	5.451	Sepulveda Blvd. to Carson St.	0.96	**E**	1.17	**F(0)**	Add one mainline lane	0.77	C	0.93	D
110-6		110	7.016	Carson St. to Torrance/Del Amo Blvd	1.11	**F(0)**	1.34	**F(1)**	Add one mainline lane	0.89	D	1.07	**F(0)**
110-7		110	8.028	Torrance/Del Amo Blvd. to Jct. Rte. 4	1.17	**F(0)**	1.42	**F(2)**	Add one mainline lane	0.94	**E**	1.13	**F(0)**
110-8		110	8.775	Jct. Rte. 405 to Jct. Rte. 91	1.42	**F(2)**	1.73	**F(3)**	Add one mainline lane	1.14	**F(0)**	1.38	**F(2)**
110-10		110	11.239	Redondo Beach Blvd. to Rosecrans A	0.97	**E**	0.93	D	Add one mainline lane	0.82	D	0.78	D
110-11		110	11.891	Rosecrans Ave. to El Segundo Blvd.	1.02	**F(0)**	0.97	**E**	Add one mainline lane	0.86	D	0.82	D
110-14		110	14.967	Century Blvd. to Manchester Ave.	1.12	**F(0)**	1.08	**F(0)**	Add one mainline lane	0.96	**E**	0.93	D
110-15	1046	110	15.976	Manchester Ave. to Florence Ave.	1.09	**F(0)**	1.05	**F(0)**	Add one mainline lane	0.94	**E**	0.90	D
110-16		110	16.981	Florence Ave. to Gage Ave.	1.10	**F(0)**	1.06	**F(0)**	Add one mainline lane	0.94	**E**	0.91	D
110-17	1047	110	17.514	Gage Ave. to Slauson Ave.	1.10	**F(0)**	1.05	**F(0)**	Add one mainline lane	0.94	**E**	0.90	D
110-18		110	17.98	Slauson Ave. to 51st St.	1.27	**F(1)**	1.21	**F(0)**	Add one mainline lane	1.06	**F(0)**	1.01	**F(0)**
110-19		110	18.495	51st St. to Vernon Ave.	1.07	**F(0)**	1.03	**F(0)**	Add one mainline lane	0.92	D	0.89	D
110-20		110	18.998	Vernon Ave. to Martin Luther King Jr.	1.07	**F(0)**	1.03	**F(0)**	Add one mainline lane	0.92	D	0.89	D
110-21		110	19.502	Martin Luther King Jr. Blvd. to Exposi	1.17	**F(0)**	1.12	**F(0)**	Add one mainline lane	0.97	**E**	0.93	D
405-3		405	5.388	Orange Ave. to Atlantic Ave.	1.29	**F(1)**	1.62	**F(3)**	Add one mainline lane	1.03	**F(0)**	1.29	**F(1)**
405-5		405	6.34	Long Beach Blvd to Jct. Rte. 710	1.01	**F(0)**	1.27	**F(1)**	Add one mainline lane	0.84	D	1.06	**F(0)**
405-6	1066	405	7.596	Jct. Rte. 710 to Alameda St.	0.92	D	1.16	**F(0)**	Add one mainline lane	0.77	C	0.97	**E**
405-7		405	8.784	Alameda St. to Wilmington Ave.	0.89	D	1.12	**F(0)**	Add one mainline lane	0.74	C	0.94	**E**
405-8		405	9.556	Wilmington Ave. to Carson St.	1.19	**F(0)**	1.46	**F(3)**	Add one mainline lane	0.95	**E**	1.16	**F(0)**
405-9		405	10.541	Carson St. to Avalon Blvd.	1.18	**F(0)**	1.43	**F(2)**	Add one mainline lane	0.94	**E**	1.14	**F(0)**
405-10	1067	405	11.224	Avalon Blvd. to Jct. Rte. 110	1.00	**E**	1.22	**F(0)**	Add one mainline lane	0.84	D	1.02	**F(0)**
405-11		405	12.97	Jct. Rte. 110 to Vermont Ave.	1.10	**F(0)**	1.35	**F(1)**	Add one mainline lane	0.88	D	1.08	**F(0)**
405-12		405	13.28	Vermont Ave. to Normandie Ave.	0.92	D	1.12	**F(0)**	Add one mainline lane	0.76	C	0.94	**E**
405-13		405	13.826	Normandie Ave. to Western Ave.	1.06	**F(0)**	1.31	**F(1)**	Add one mainline lane	0.85	D	1.05	**F(0)**
405-14		405	14.398	Western Ave. to Crenshaw Blvd.	1.03	**F(0)**	1.26	**F(1)**	Add one mainline lane	0.82	D	1.01	**F(0)**
405-15		405	15.447	Crenshaw Blvd. to Artesia Blvd.	1.00	**E**	1.23	**F(0)**	Add one mainline lane	0.80	D	0.99	**E**
405-16		405	16.573	Artesia Blvd. to Hawthorne Blvd.	1.01	**F(0)**	1.24	**F(0)**	Add one mainline lane	0.81	D	1.00	**E**
405-17		405	17.589	Hawthorne Blvd. to Inglewood Ave.	1.06	**F(0)**	1.29	**F(1)**	Add one mainline lane	0.85	D	1.04	**F(0)**
710-2		710	13.945	Alondra Blvd. to Jct. Rte. 105	0.98	**E**	0.78	D	Add one mainline lane	0.84	D	0.67	C

Note: D/C is demand-to-capacity ratio.

Sunday (Additional 3,000-Seat Event) Mitigation

TRA-54 Prior to the completion of installation of the additional 3,000 stadium seats, CSUDH shall prepare and, following seat installation, implement a traffic management plan, which shall include the following strategies at the identified intersections:

Pre-Event Strategies

Intersection No. 9 University Dr./Toro Center Dr.

- Officer Control
- Temporarily convert one of the two eastbound through lanes into to a second eastbound left-turn lane

With implementation of these strategies, operations of the intersection will improve to LOS A for the pre-event peak hour and the impact will be reduced to a less than significant level.

Intersection No. 25 Avalon Blvd./University Dr.

- Officer Control
- Temporarily Provide overlap phasing for the northbound right-turn movement

With implementation of these strategies, operations of the intersection will improve to LOS D for the pre-event peak hour and the impact will be reduced to a less than significant level.

Intersection No. 41 Victoria St./ Rainsbury Ave.

- Temporarily extend with cones eastbound right-turn lane for Intersection No. 1, Victoria St./Gate D, back to before Intersection No. 41 providing three eastbound through lanes at Intersection No. 41.

With implementation of this strategy, operations of the intersection will improve to LOS C for the pre-event peak hour and the impact will be reduced to a less than significant level.

Post-Event Strategies

Intersection No. 3 Victoria St./Birchknoll Dr.

- Temporarily cone an additional east bound through lane

With implementation of this strategy, operations of the intersection will improve to LOS D for the post-event peak hour and the impact will be reduced to a less than significant level.

Transportation Demand Management Plan Mitigation

Each day, thousands of students, faculty, staff, and visitors travel to and from the CSUDH campus. As part of the 2018 Master Plan planning process, the University evaluated how it can invest in cost-effective strategies to reduce vehicle trips, lower greenhouse gas (GHG) emissions, manage

parking demand, and increase the use of transit, bicycling, and pedestrian use on campus. This Transportation Demand Management (TDM) Plan is the culmination of that process. Ultimately, the TDM Plan will guide CSUDH in its efforts to improve environmental sustainability, shift the fundamental nature of the campus away from being almost exclusively a "commuter" school, maximize its transportation resources, and provide specific strategies to enable the University to invest in a transportation system that supports all modes of travel. The TDM Plan implements CSUDH's long-term vision of a campus in which more students, faculty, and staff have the choice to meet their daily needs on campus. The benefits of such a shift are numerous, including reductions in the number of vehicle trips to and from campus, a reduced need for parking, and associated reductions in GHG emissions.

CSUDH's transition will not be immediate, but will occur over the long-term horizon of the 2018 Campus Master Plan and beyond. The TDM Plan recognizes this vision, establishes a strong foundation for such a change, and offers an incremental approach that acknowledges as technology evolves and new TDM best practices emerge, the list of feasible TDM strategies also may grow and evolve — with alternative TDM strategies of equal or enhanced effectiveness.

This TDM Plan was informed by the "Transportation Demand Management Manual," Final Report (Nov. 2012), prepared by Nelson/Nygaard for the California State University (TDM Manual). Until completion of that manual, the CSU system lacked consistent policy guidance on how to lessen reliance upon single-occupant vehicle travel and reduce vehicle trips to campuses. The TDM Manual is a resource available to all CSU campuses, recognizing that each campus varies in terms of location (urban to rural), number of students, and other unique factors; it also provides a system-wide framework for implementing sustainable transportation programs, and contains goals, criteria, and best practices to encourage students, faculty, and staff to commute to and from campus via bus/rail transit, carpools, vanpools, bicycling, and walking. The TDM Manual is available at https://www.calstate.edu/cpdc/Suam/CSU-Systemwide-TDM-Manual-November-2012.pdf.

This TDM Plan sets forth the plan objectives, followed by plan strategies, and TDM-related project design features. The 2018 Campus Master Plan Mitigation Monitoring and Reporting Program (MMRP) will include this TDM Plan, rendering it enforceable.

TDM Plan Objectives

Using the TDM Manual as guidance, CSUDH has identified the following objectives of its TDM Plan:

At a threshold level, the TDM Plan's objectives are to provide information, incentives, resources, and support to students, faculty, and staff who want to make the best possible use of available transportation options.

At a more fundamental level, the TDM Plan is also concerned with incorporating Campus Master Plan project design features that increase housing for students and provide housing opportunities for faculty and staff that will assist in reducing vehicle trips and related vehicle miles traveled. Further, the design features call for expanding student and campus life facilities, and creating retail/mixed-use development and other campus amenities to reduce the need for students, faculty,

and staff to drive from the campus to shop for goods and services. Other design features include, among others: (i) supporting use of public transit by continuing to provide shuttle connections and bus stops for University and local transit vehicles; (ii) making changes to campus access points and roadways to improve traffic flow to and from campus, while emphasizing and supporting enhanced pedestrian circulation; and (iii) improving bicycle routes to, from, and within the campus.

TDM Plan Mitigation Measure

TRA-55 Following Board of Trustees' approval of the 2018 Campus Master Plan, CSUDH shall take the following actions to implement, or continue to implement as applicable, the following Transportation Demand Management strategies to reduce the number of vehicle trips generated by students, faculty, and staff:

1. **TDM Coordinator.** CSUDH shall identify an employment position with primary responsibility for overseeing implementation of all TDM strategies listed herein, and task such position with conducting all associated TDM implementation, outreach, marketing, and monitoring activities.
2. **Employee Rideshare Opportunities.** The TDM coordinator shall be responsible for maintaining, overseeing, and increasing CSUDH employee ridesharing opportunities, including the following:
    a. Maintain and/or provide faculty/staff carpool permit application policies and procedures for reserved carpool parking in carpool zones, from Monday through Friday, 7:00 a.m. – 6:00 p.m.
    b. Maintain and/or provide faculty/staff Zero Emissions Vehicle (ZEV) and/or Plug-in Hybrid Electric Vehicle (PHEV) permit application policies and procedures for reserved ZEV/PHEV parking in permitted zones, from Monday through Friday, 7:00 a.m. – 6:00 p.m.
    c. Maintain and/or provide CSUDH faculty/staff with an online ride-matching service to assist with finding carpool partners within the student community.
    d. As part of the ride-matching/rideshare program, maintain and/or provide CSUDH faculty/staff with a guaranteed ride home program (assuring reliable transportation home in the event of an emergency).
    e. Maintain and/or provide CSUDH faculty/staff with preferential carpool parking spaces per campus policies and procedures.
    f. Maintain and/or provide a "one-stop shop" center for faculty/staff information on alternative transportation in and around CSUDH, including parking, parking permits, designated carpool zones throughout the campus, commute planning by public transportation, finding rideshare partners, locating park-n-ride lots, using real-time Metro bus scheduling, identifying bike routes to and from campus, providing daily traffic and weather reports, and providing driving directions, from Monday through Friday, 7:00 a.m. – 6:00 p.m.

3. **Student Rideshare Opportunities.** The TDM coordinator shall be responsible for maintaining, overseeing, and increasing CSUDH student ridesharing opportunities, including the following:

   a. Maintain and/or provide CSUDH undergraduate and graduate students with a reduced-cost monthly bus pass program.

   b. Maintain and/or provide CSUDH undergraduate and graduate students with an exclusive online ride-matching service to assist with finding carpool partners within the student community.

   c. As part of the ride-matching/rideshare program, maintain and/or provide CSUDH undergraduate and graduate students with a guaranteed ride home program (assuring reliable transportation home in the event of an emergency).

   d. Maintain and/or provide CSUDH undergraduate and graduate students with preferential carpool parking spaces per campus policies and procedures.

   e. Maintain and/or provide a "one-stop shop" center for student information on alternative transportation in and around CSUDH, including parking, parking permits, designated carpool zones throughout the campus, commute planning by public transportation, finding rideshare partners, locating park-n-ride lots, using real-time Metro bus scheduling, identifying bike routes to and from campus, providing daily traffic and weather reports, and providing driving directions, from Monday through Friday, 7:00 a.m. – 6:00 p.m.

4. **Other Ridesharing Opportunities.** The TDM coordinator shall be responsible for maintaining, overseeing, and increasing CSUDH employee and student ridesharing opportunities, including the following:

   a. Maintain and/or provide policies and procedures for facilitating Zipcar or equivalent self-service on-demand car sharing on campus (by the Fall 2018 semester). (TDM coordinator to consider expanding Zipcar program to the proposed University Village housing project component, if demand warrants — concurrent with University Village development.)

   b. Designate on-campus locations for ride-hailing services, including and not limited to, Uber and Lyft.

   c. Promote all employee, student, and other ridesharing opportunities by all appropriate means, including, and not limited to, providing informational packets and/or online links to all new employees and students during employee/student orientation.

5. **Other Transportation Options.** The TDM coordinator shall be responsible for maintaining, overseeing, and increasing other CSUDH employee and/or student transportation options, including the following:

   a. Maintain and/or provide policies and procedures for a campus walking program to encourage employees and/or students who live within walking distance of campus to walk to and from campus at least 3 days per week. Participants also are to be eligible for the CSUDH guaranteed ride home program (for emergencies) and have access to campus locker and shower facilities.

b. Maintain and/or provide policies and procedures for a campus biking program to encourage employees and/or students who live within biking distance of campus to bike to and from campus at least 3 days per week. Participants also are to be eligible for the CSUDH guaranteed ride home program (for emergencies) and have access to campus locker and shower facilities.

c. Maintain and/or provide policies and procedures for a campus bus and light-rail program to encourage employees and/or students to use transit to and from campus. The Carson Circuit, Torrance Transit Buses, Long Beach Transit (via Metro Blueline), and Metro and light-rail provide direct service to most parts of the CSUDH campus. Eligible full-time CSUDH students will save 25% on Metrolink tickets; and eligible employees will receive up to 40% reimbursement of the cost of their Metrolink monthly pass.

TDM Project Design Features

While not technically a part of the TDM Plan mitigation measure, the following project design features will assist in reducing vehicle traffic and facilitate modes of travel alternative to single ridership vehicles ridership and include a vehicle circulation plan, pedestrian circulation plan, bicycle plan, transit plan, and parking plan (for additional information regarding project design features, please see the subsection Proposed Project Description/Features Relative to Transportation/Circulation, as well as Draft EIR Section 2.0, Project Description):

1. **Vehicle Circulation Plan.** The 2018 Guidelines contain the proposed vehicle circulation plan (**Figure 3.9-4 - 3.9-15**), which is part of the proposed project. This project design feature will: (i) increase the safety of the pedestrian core on campus; (ii) streamline vehicle traffic to and from campus; (iii) make transit use as convenient as possible; and (iv) concentrate parking at the edge of the campus. Such features promote pedestrian use, improve traffic flow to and from campus, and enhance transit use — all of which enhance transportation demand management through better campus site planning. This TDM Plan incorporates the improvements/enhancements to the proposed Master Plan's vehicle circulation plan, as well as the pedestrian, bicycle, transit, and parking plans, as an enforceable project design feature.

   The TDM-related campus site improvements are not tied to any particular semester or other set timeframe; instead, such improvements will be phased in according to the pace of campus enrollment increases, campus needs, development of new academic programs, and availability of resources. Changes to campus roadways will take place as development of new adjacent facilities dictate; however, it is anticipated that updated campus entry points at Tamcliff and Victoria, and at Toro Center Drive and University Drive will be given priority in order to highlight and reinforce campus identity and accessibility in all forms. In addition, the proposed University Village development will proceed on its own timetable, based on the arrangements and partnerships developed by CSUDH. Nonetheless, changes to campus roadways and access points will implement TDM-related campus site improvements. (Note also — the figures depicted in this TDM Plan are for illustrative purposes only; actual development may differ but would substantially conform with same.)

The vehicle circulation plan addresses the Tamcliff Avenue North Entry, Dominguez Hills Parkway, Toro Center Drive, Birchknoll Drive, and vehicle access points into University Village, each of which is described below:

a. **Tamcliff Avenue North Entry (see Fig. 15, Tamcliff North Entry, below).** Tamcliff Avenue will serve as a key campus access point for visitors, bicyclists, and pedestrians coming from the north. This roadway is proposed to be changed from a through-campus roadway to a vehicle entry/drop-off and turn-around.

Pedestrian Access. As shown on **Figure 3.9-15**, Tamcliff North Entry, below, just to the south of the vehicle turn-around will be the newly created Pedestrian Plaza that will extend into the campus and through the Sculpture Garden. This plaza will become a primary pedestrian route from lower to upper campus, connecting with West Parkway and the rest of the campus pedestrian pathway system via the new Grand Stair.

Visitor Access. For visitors to the campus, the Tamcliff entry will include a "visitor information point" to allow for driver-side interaction so that visitors can get information about their campus destination and obtain a parking pass. The turn-around will allow visitors to then proceed to visitor parking.

Passenger and Bicycle Access. The Tamcliff turn-around is to be configured to allow for passenger drop-off and pick-up and to accommodate emergency vehicles. Low vehicle volumes on Tamcliff Avenue will facilitate an improved environment for pedestrians and bicyclists. Bicyclists arriving from Victoria Street will have access to Class II bike-lane facilities along the Tamcliff entry, and be required to dismount in the pedestrian-oriented campus core.

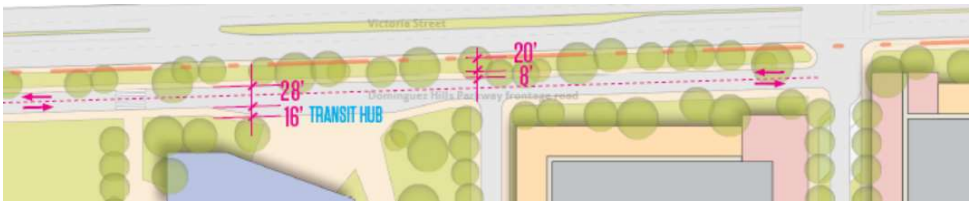
Addressing Vehicle Congestion at Campus Entry. Converting the Tamcliff entry to a turn-around drop-off access point will help reduce vehicle congestion at this northern campus entry point.

Figure 3.9-15
Tamcliff North Entry

b. **Dominguez Hills Parkway.** Dominguez Hills Parkway forms a frontage road between the campus and Victoria Street to the north, and then turns south to become Dominguez Hills Parkway West.

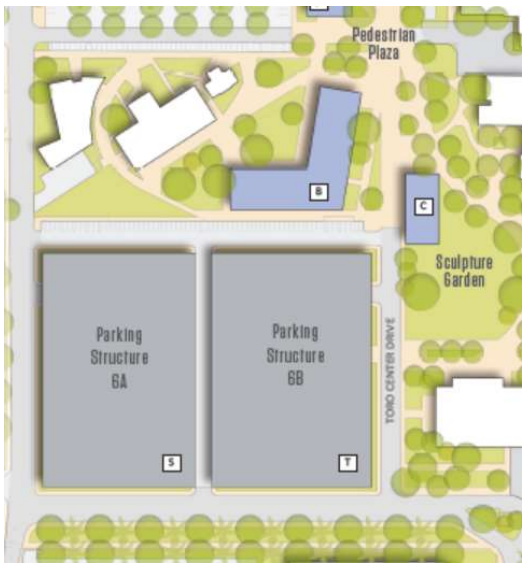
Dominguez Hills Parkway Frontage Road. As shown on **Figure 3.9-16**, Dominguez Hills Parkway Frontage Road — Roadway Widths and Transit Hub, below, on the frontage road portion, the existing internal median is to be removed, narrowed, and converted to one lane in each direction. The existing Transit Hub will continue to be located on the frontage road, but is to be shifted to the east. The shift in the Transit Hub will better facilitate transit ridership to and from the campus.

Figure 3.9-16
Dominguez Hills Parkway Frontage Road — Roadway Widths and Transit Hub



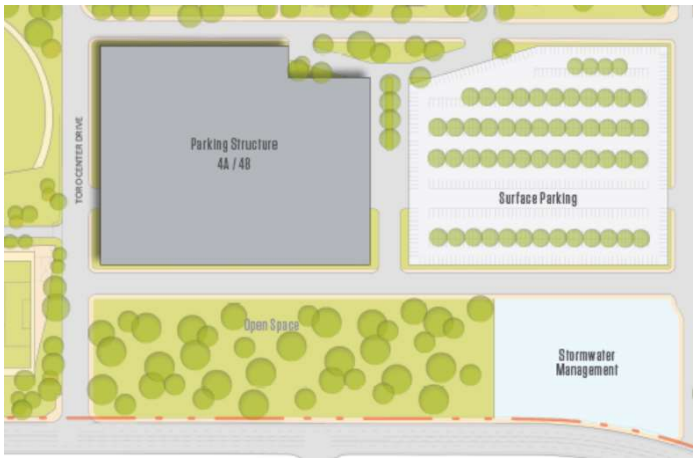
c. **Toro Center Drive.** The northern segment of Toro Center Drive that currently connects with the Tamcliff Avenue campus entry is to be changed to a service/emergency vehicle only route, as shown on **Figure 3.9-17**, Toro Center Drive (Northern Segment), below. This will allow for the new Pedestrian Plaza entry into the campus, enhancing pedestrian use.

Figure 3.9-17
Toro Center Drive (Northern Segment)



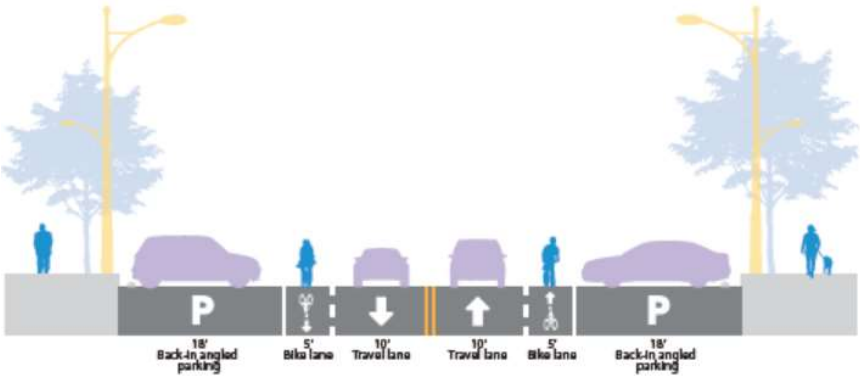
Southern Segment. Toro Center Drive will continue to serve as the main campus entry from the south, and provide access to new parking facilities at the southerly end of the campus (Parking Structure 4a/4b and South Surface Lot), as illustrated on **Figure 3.9-18**, Toro Center Drive (Southern Segment), below.

Figure 3.9-18
Toro Center Drive (Southern Segment)



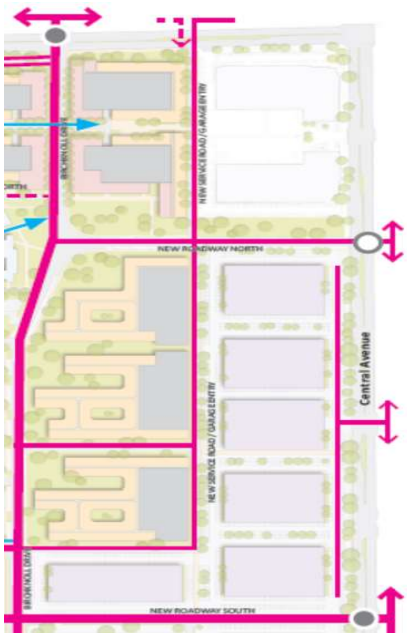
d. **Birchknoll Drive.** Birchknoll Drive will serve as the main vehicle entry into the University Village component of the proposed 2018 Campus Master Plan. As shown in the street section illustrated in **Figure 3.9-19**, University Village "Main Street" — Birchknoll Drive Street Section, below, Birchknoll Drive will be one vehicle lane in each direction, with a bike lane and angled or parallel parking on either side. The northern segment will create a congenial Village atmosphere, providing easy access to ground-floor retail establishments on either side of the street. This design will facilitate retail amenities on campus, reducing the need for students, faculty, and staff to drive from the campus to shop for goods and services.

Figure 3.9-19
University Village "Main Street" —
Birchknoll Drive Street Section



e. **Other Vehicle Access into University Village.** To reduce traffic congestion into the University Village component, the proposed 2018 Campus Master Plan will include new access roadways, including Charles Willard and Glenn Curtiss streets extending from Central Avenue on the east side of the campus, as illustrated on **Figure 3.9-20**, University Village — Birchknoll Drive, Charles Willard Street and Glenn Curtiss Street, below. As explained in further detail below under Pedestrian Circulation Plan, this access also will accommodate and facilitate pedestrian circulation on campus.

Figure 3.9-20
University Village — Birchknoll Drive,
Charles Willard Street and Glenn Curtiss Street



2. **Pedestrian Circulation Plan.** The 2018 Campus Master Plan Guidelines describe the proposed pedestrian circulation plan throughout the campus. The purpose of the pedestrian circulation plan is to: (i) enhance pedestrian circulation; (ii) create and support a safe and user-friendly pedestrian pathway system to serve all campus inhabitants; and (iii) extend existing pedestrian pathways to provide access to proposed new facilities. Three new aspects of the proposed pedestrian pathway system include: (i) the Pedestrian Plaza and pathway through the Sculpture Garden, linking parking facilities in the west to the core campus; (ii) the new Olive Walk pathway connecting the academic core to the University Village retail area to the east; and (iii) new pedestrian routes from campus parking facilities at the south to the StubHub center, providing direct routes for StubHub center patrons during events.

   The proposed pedestrian circulation plan is illustrated in blue on **Figure 3.9-21**, Pedestrian Circulation, below. On both the proposed primary and secondary vehicle routes, speed limits through the campus will remain low (<20 miles per hour) to support pedestrian and bicycle safety. On both primary and secondary routes, marked

crosswalks will be provided at key pedestrian junctions, including intersections and mid-block locations that experience heavy foot traffic. Pedestrian-scale wayfinding and lighting will be provided throughout the site, connecting into the campus and linking the development to nearby transit stops. Enhanced pedestrian facilities, including wide sidewalks and street furniture, also will be included as part of the University Village project component on the east side of the campus.

Figure 3.9-21
Pedestrian Circulation

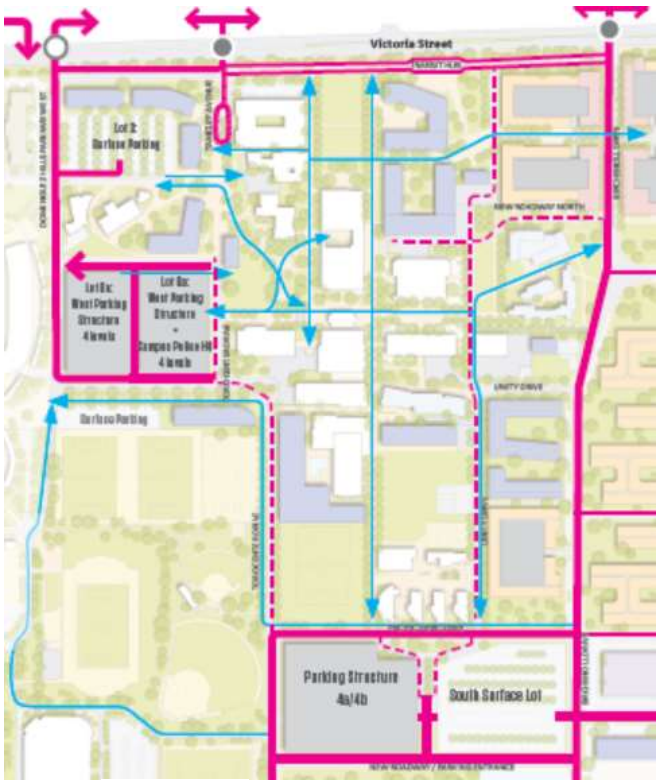


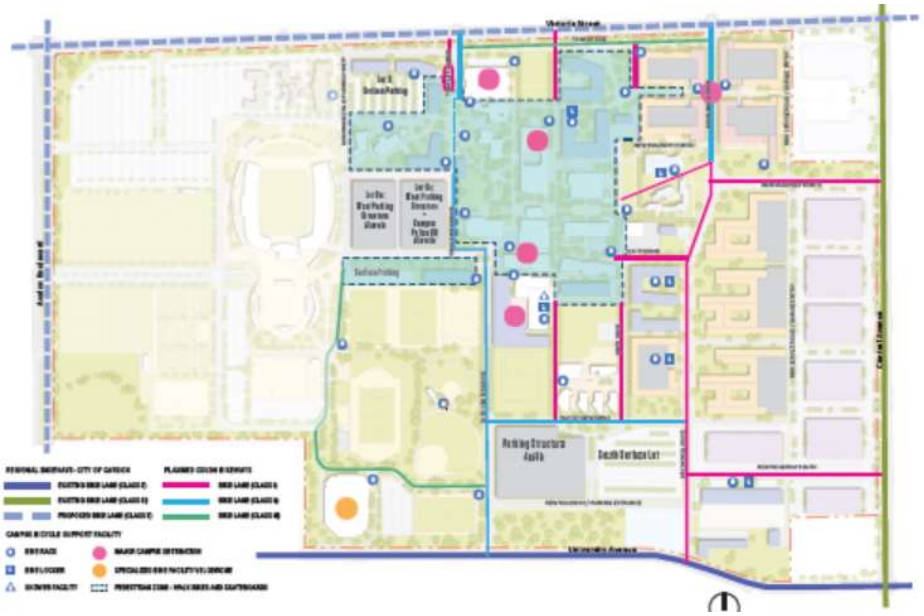
Figure 3.9-22, 2018 Master Plan — Walking Distances, below, shows that a pedestrian walking at moderate speed can cross the core campus in less than 10 minutes and that all locations in the campus core and the proposed University Village are within a 10-minute walk of the center of the campus. Thus, the campus site design will facilitate and enhance walking, which also will promote alternatives to vehicular travel to and from (and within) the campus.

Figure 3.9-22
2018 Master Plan — Walking Distances

3. **Bicycle Plan.** The 2018 Campus Master Plan Guidelines contain the proposed bicycle plan (Fig. 4-28), which is part of the proposed project. **Figure 3.9-23**, Bicycle Plan, below, shows the proposed bicycle plan, which includes the City of Carson Bicycle Plan and which consists of a system of surrounding existing and planned regional bikeways that run along the four adjacent roadways that surround the entire campus property (Avalon Boulevard to the west [proposed Class II bike lane], Victoria Street to the north [proposed Class II bike lane], Central Avenue to the east [existing Class III bike lane], and University Avenue to the south [existing Class II bike lane]).

   The proposed bicycle plan also depicts new facilities for bicyclists on the CSUDH campus, including new bike lanes, bike racks, lockers, and showers (see Fig. 23, below). The proposed campus bikeways include two north/south routes through the campus — one from Tamcliff Avenue through Toro Center Drive, and the other traversing much of the University Village area along Birchknoll Drive. These bikeways will connect to external bike facilities currently planned by the City of Carson, providing safe bicycle connections to nearby residential, employment, and transit destinations.

Figure 3.9-23
Bicycle Plan

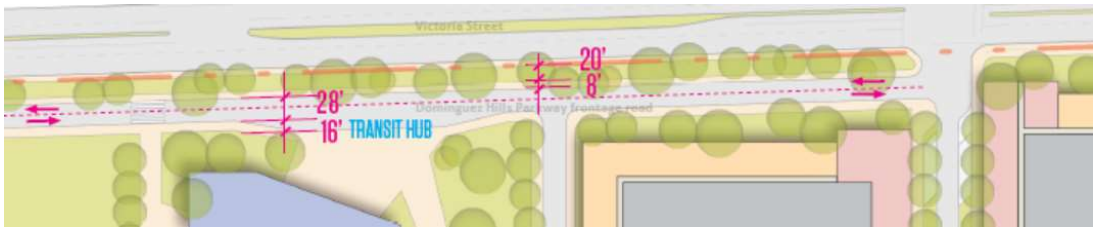


4. **Transit Plan.** The 2018 Campus Master Plan Guidelines contain the proposed transit plan, which is part of the proposed project. **Figure 3.9-24,** Transit Hub, below, shows the Transit Hub on the Dominguez Hills Parkway frontage road along the north edge of campus, which will be improved and continue to support the range of public transit services serving the campus, as well as the Toro Express campus shuttle (an existing shuttle that connects CSUDH students with the Artesia Transit Center and the Metro Blue Line). CSUDH is connected to the region and local communities by at least six bus lines provided by Los Angeles Metro, Long Beach Transit, and Torrance Transit.

   The frontage road between Birchknoll Drive and Tamcliff Avenue will remain a component of the campus vehicle circulation system, but its use by automobiles and commuters will be diminished as part of the proposed project. To accommodate transit vehicles along the Dominguez Hills Parkway frontage road, travel lanes are to be approximately 14 feet wide to accommodate transit vehicles, with wide bus pull-outs to accommodate both east-bound and west-bound buses, allowing for improved direct transit connections on campus (see Fig. 24, below).

   The Transit Hub will include features and amenities to support transit use, such as seating, trash receptacles, shade structures, landscaping, and transit signage, including real-time arrival information; the specific design, sizing, and choice of such amenities will be determined closer to its rebuild and implementation, to match specific transit services offered at that time, as well as the needs of transit riders and vehicle operators.

Figure 3.9-24
Transit Hub



5. **Parking Plan.** The 2018 Campus Master Plan Guidelines contain the proposed parking plan, including both surface parking lots and parking structures (Fig. 4-15), which is part of the proposed project. Within the core campus, parking is located toward the edge of the campus with the primary vehicle routes supporting the heaviest volumes of vehicles to existing and planned parking lots and parking structures. This design maintains a strong pedestrian core to the campus, with safer pedestrian access from parking lots and structures and from the Transit Hub, into the central portion of the campus.

   CSUDH existing parking policy provides relatively low-cost parking permits and plentiful parking facilities — parking permits cost $220 per year, compared with the CSU system average of $300; and the campus parking supply provides 0.42 parking spaces per full-time equivalent student.

Inexpensive parking is a benefit for working students, but, at the same time, it encourages single-occupant vehicle trips. As campus enrollment increases, the concomitant requirements for parking facilities will create a need to build parking structures, which will, in turn, increase the cost of parking (parking facilities are paid for by parking fees). With implementation of this TDM Plan, the continuing encouragement and incentives for students, faculty, staff, and visitors to use public transit and ride services, as well as imminent changes to transportation such as self-driving vehicles, the campus may be able to avoid building some of the parking structures shown in the 2018 Campus Master Plan.

Mitigation Measure Triggers

As to those mitigation measures ultimately deemed feasible, CSUDH would implement the measure (i.e., pay its full- or fair-share, or construct the subject improvement, as applicable) prior to the onset of the corresponding significant impact. **Table 3.9-41**, Mitigation Measure Triggers, identifies the specific trigger for each mitigation measure previously identified as physically feasible. The triggers link the improvements to the specific component of the Project that would cause the impact.

Readers should note that it may not be possible for CSUDH to control the timing of improvements since the off-campus facilities that need to be improved are all under the jurisdiction of other entities. Nevertheless, the university will make reasonable efforts to seek the cooperation of these other entities in implementing the mitigation measure improvements in a timely manner.

Table 3.9-41
Mitigation Measure Triggers

Intersection		Recommended Mitigation	Trigger for Implementation
1	Victoria St./Drive D	Signalize	Prior to occupancy of building(s) that would allow off-campus student enrollment to increase more than 400 FTES, and the City has a fee program in place, and the City grants approval for construction of the proposed roadway improvement.
		Add 2nd WB left turn lane	Prior to occupancy of building(s) that would allow off-campus student enrollment to increase more than 2,400 FTES, and the City has a fee program in place, and the City grants approval for construction of the proposed roadway improvement.
3	Victoria St./Birchknoll Dr.	Add 2d WB Left-Turn Lane	Prior to start of construction of mixed-use component, and the City has a fee program in place, and the City grants approval for construction of the proposed roadway improvement.
5	Central Ave./Charles Willard St.	Signalize	Prior to construction of any of the 3 northern business park buildings, or the construction of either of the 2 northern market-rate apartment buildings, whichever comes first, and the City has a fee program in place, and the City grants approval for construction of the proposed roadway improvement.
6	Central Ave./Beachey Pl.	Signalize	Prior to construction of any of the 4 southern business park buildings, or the construction of either the southern-most market-rate apartment building or the construction of student aprtments, whichever comes first, and the City has a fee program in place, and the City grants approval for construction of the proposed roadway improvement.
9	University Dr./Toro Center Dr.	Signalize	Prior to occupancy of building(s) that would allow off-campus student enrollment to increase more than 5,600 FTES, and the City has a fee program in place, and the City grants approval for construction of the proposed roadway improvement.
12	Avalon Blvd./Albertoni St.	Add 2nd Exclusive EB Right-Turn Lane	Prior to occupancy of building(s) that would allow off-campus student enrollment to increase more than 2,400 FTES, and the City has a fee program in place, and the City grants approval for construction of the proposed roadway improvement.
13	Avalon Blvd./Victoria St.	Add 2nd NB Left-Turn Lane, Convert EB Exclusive Right-Turn Lane to a Through/Right-Shared Lane	Prior to occupancy of the mixed-use area, and the City has a fee program in place, and the City grants approval for construction of the proposed roadway improvement.
		Add 3rd WB Through Lane	Prior to occupancy of building(s) that would allow off-campus student enrollment to increase more than 2,400 FTES, and the City has a fee program in place, and the City grants approval for construction of the proposed roadway improvement.
22	Figueroa St./190th St./Victoria St.	Add 3rd WB Through Lane, Add 3rd EB Through Lane	Prior to occupancy of the mixed-use area, and the City has a fee program in place, and the City grants approval for construction of the proposed roadway improvement.
		Add 2nd WB Left-Turn Lane	Prior to occupancy of building(s) that would allow off-campus student enrollment to increase more than 2,400 FTES, and the City has a fee program in place, and the City grants approval for construction of the proposed roadway improvement.
23	Broadway/Victoria St.	Add 3rd WB Through Lane, Add EB Right-Turn Lane	Prior to occupancy of building(s) that would allow off-campus student enrollment to increase more than 2,400 FTES, and the City has a fee program in place, and the City grants approval for construction of the proposed roadway improvement.
24	Main St./Victoria St.	Add 3rd EB Through Lane, Add WB Exclusive Right-Turn Lane	Prior to occupancy of the mixed-use area, and the City has a fee program in place, and the City grants approval for construction of the proposed roadway improvement.
		Add EB Exclusive Right-Turn Lane	Prior to occupancy of building(s) that would allow off-campus student enrollment to increase more than 2,400 FTES, and the City has a fee program in place, and the City grants approval for construction of the proposed roadway improvement.
26	Avalon Blvd./Del Amo Blvd.	Add SB Exclusive Right-Turn Lane Convert WB Exclusive Right-Turn Lane into an WB Through/Right-Shared Lane	Prior to occupancy of building(s) that would allow off-campus student enrollment to increase more than 800 FTES, and the City has a fee program in place, and the City grants approval for construction of the proposed roadway improvement.

Level of Significance After Mitigation

If implemented, the recommended mitigation improvements would reduce the identified significant impacts at the 10 intersections under the Interim 2025 Conditions and at the 17 intersections under the Buildout 2035 conditions to less than significant levels. The identified mitigation measures also would reduce the significant impacts associated with Sunday events at StubHub stadium at the identified intersections to less than significant levels.

However, the identified mitigation improvements at intersections located within the city of Carson are considered infeasible due to their location outside the jurisdiction and control of California State University, and, as to cumulative impacts, infeasible due to a lack of plan or program in place to fund and construct the recommended improvements. For these reasons, the impacts are considered significant and unavoidable. In addition, improvements at 3 significantly impacted intersections identified for the Interim 2025 Conditions, and at 7 intersections for the Buildout 2035 Conditions are infeasible due to physical constraints, and, therefore, the significant impacts at those intersections are considered significant and unavoidable also for this reason.

As to the significant impacts identified at state highway facilities (i.e., freeway ramps and mainline segments), these facilities are under the jurisdiction and control of Caltrans, a state agency separate and distinct from CSU. While CSU will support Caltrans in its efforts to obtain funding for the recommended improvements, the University cannot guarantee implementation of the improvements within either year 2025 interim or year 2035 Master Plan planning horizon and, for that reason, project impacts on the identified freeway ramps and segments are considered significant and unavoidable.

It is important to note that these significance determinations are based on a conservative "worst-case scenario" whereby it is assumed that mitigation for all extra-jurisdictional significant impacts (i.e., significant impacts outside the jurisdiction and control of CSU) are infeasible and, therefore, the impacts are significant and unavoidable. However, to the extent the jurisdictions beyond CSU authorize CSU implementation of the necessary improvements in the case of direct impacts, and in the case of cumulative impacts, implement a fee program to address cumulative impacts within their jurisdiction, mitigation identified here as infeasible may be feasible and the corresponding impacts reduced to less than significant.

Moreover, the University's development and implementation of the TDM Plan identified herein will reduce vehicle trip generation in a manner not accounted for as part of the impacts analysis. Thus, the impacts identified here are overstated.

Lastly, all of the vehicle trips included within the analysis presented here as forecast to be generated by the campus were assumed to be new, additional trips to the region. However, the proposed Campus Master Plan is consistent with the SCAG Regional Transportation Plan and Sustainable Communities Strategy (RTP/SCS) long term goals and strategies for growth and, as such, the proposed Master Plan will assist in achieving regionwide goals of reducing vehicle trips and associated GHG emissions. Moreover, the project is consistent with several RTP/SCS strategies, including locating housing close to employment and activity centers; encouraging infill development, and compact, mixed-use projects; forming urban villages that provide housing and encourage walking, bicycling and the use of public transit systems; developing commute trip

reduction plans that encourage employees who commute alone to consider alternative transportation modes; developing shuttle systems to reduce congestion and create shorter commutes; and creating ridesharing programs.

3.10 Utilities and Services Systems

This section analyzes the potential impacts associated with the 2018 Campus Master Plan on public utilities, including water supply and related infrastructure, wastewater infrastructure, storm water infrastructure, solid waste disposal, and energy resources due to consumption. The analysis provided in this section is based largely on the following sources:

- Guidelines for the 2018 Campus Master Plan (Guidelines);
- Civil Engineering Report (Wheeler and Gray), 2018;
- California Water Service (Cal Water) Dominguez District Urban Water Management Plan, 2015;
- City of Carson Sewer System Management Plan, 2015;
- Sanitation Districts of Los Angeles County Joint Water Pollution Control Plant website, 2017;
- County of Los Angeles Countywide Integrated Waste Management Plan Annual Report, 2016;
- California Department of Resources Recycling and Recovery Solid Waste Information System (SWIS) website, 2017;
- State Water Resources Control Board Water Conservation Portal - Conservation Reporting website, 2017;
- U.S Department of Energy, Energy Information Administration Commercial Buildings Energy Consumption Survey – Water Analysis and Projections webpage, 2017;
- Sanitation Districts of Los Angeles County, Joint Water Pollution Control Plant, Annual Performance Data, 2015;
- The California State University Sustainability Report 2014;
- Administrative Draft Program Environmental Impact Report for the Los Angeles County Flood Control District Enhanced Watershed Management Programs, January 2015; ~~and~~
- California Energy Commission, Petroleum Watch, 2018; and~~.~~
- California Water Service Company, Cal State University Dominguez Hills SB610 Water Supply Assessment, 2019.

Environmental Setting

Regulatory Framework

Federal

Clean Water Act

Section 303 of the Clean Water Act requires states to identify surface waters that have been impaired. Under Section 303(d), states, territories, and authorized tribes are required to develop a list of water quality segments that do not meet water quality standards, even after point sources of pollution have installed the minimum required levels of pollution control technology (33 U.S.C. 1251 et seq.).

Section 402 of the ~~Clean Water Act established the National Pollutant Discharge Elimination System (NPDES) to regulate the discharge of pollutants from point sources.~~federal Clean Water Act (33 U.S.(c) § 1251, et seq.,) provides for the regulation and reduction of pollutants discharged into the waters of the United States by extending National Pollutant Discharge Elimination System ("NPDES") requirements to storm water and urban runoff discharge into municipal storm drain systems.

State

California Water Code

The California Water Code contains provisions that control almost every consideration of water and its use. Division 2 of the California Water Code provides that the State Water Resources Control Board (State Water Board) must consider and act upon all applications for permits to appropriate waters. Division 6 of the Water Code controls conservation, development, and utilization of the State's water resources, and Division 7 addresses water quality protection and management.

California is divided into nine regions governed by Regional Water Quality Control Boards (Regional Boards), which implement and enforce provisions of the California Water Code and the federal Clean Water Act under the oversight of the State Water Board, and their chief regulatory focus is the protection of surface and groundwater quality. The Los Angeles Regional Water Quality Control Board (Region 4) (LA Regional Board) is the Board with regulatory jurisdiction over the over the project site.

Porter-Cologne Water Quality Control Act

The Porter-Cologne Water Quality Control Act (Water Code Sections 13000 *et seq*.) establishes the principal California legal and regulatory framework for water quality control and is embodied in the Water Code. The Water Code authorizes the State Water Board to implement the provisions of the federal CWA.

The Water Conservation Act of 2009

The Water Conservation Act of 2009 (Water Code Section 10608) (SBX7-7) requires all water suppliers to increase water use efficiency. Specifically, the legislation sets an overall goal of reducing per capita urban water use, as compared to 2009 use, by 20 percent by December 31, 2020. The State must make incremental progress towards this goal by reducing per capita water use by at least 10 percent by December 31, 2015. Effective 2016, urban retail water suppliers who do not meet the water conservation requirements established by this bill are not eligible for State water grants or loans.

California Water Plan

Water Code Sections 1004 through 10013 describe the components and characteristics of the California Water Plan. The plan addresses the coordinated control, protection, conservation, development, and utilization of the State's water resources. Updated every five years, the most recent water plan is the *California Water Plan Update 2013*, released in October 2014.

Senate Bill 610

Senate Bill 610 (Chapter 643, Statutes of 2001) (SB 610) amended state law as of January 1, 2002, to include consideration of water supply availability when cities and counties are making land use development decisions. SB 610 requires information on water supply availability be provided to local public agency decision-makers prior to approval of development projects that meet or exceed any of the following criteria:

1. A residential development of more than 500 dwelling units.
2. A shopping center or business establishment employing more than 1,000 persons or
1. having more than 500,000 square feet.
2. A commercial office building employing more than 1,000 persons or having more than
3. 250,000 square feet of floor space.
4. A hotel or motel with more than 500 rooms.
5. An industrial, manufacturing or processing plant or industrial park planned to house more
6. than 1,000 persons occupying more than 40 acres of land or having more than 650,000
7. square feet of floor area.
8. A mixed-used project that includes one or more of the projects specified above.
9. A project that would demand an amount of water equivalent to, or greater than, the
10. amount of water required by a 500 dwelling unit project.

Because CSU is not a City or County, it is not subject to the requirements of Water Code section 10910; however, CSU requested that the Rancho Dominguez Water District prepare a WSA to analyze the adequacy of projected water supplies to satisfy water demand of the Project.

California Recycled Water Policy

On February 3, 2009, the State Water Resources Control Board (SWRCB) adopted a statewide recycled water policy, with the ultimate goal to increase the use of recycled water from municipal wastewater sources. Included in the statewide policy is the mandate to increase the use of recycled water in California by 200,000 acre-feet per year by 2020, and an additional 300,000 acre-feet per year by 2030 (SWRCB 2013). The plan also states that the SWRCB expects to develop other policies to encourage stormwater, surface, and groundwater use to promote water conservation. The SWRCB adopted an amendment to the Recycled Water Policy on January 22, 2013, which establishes monitoring requirements for constituents of emerging concern in recycled municipal wastewater.

California Recycled Water Standards

The California legislature has developed state requirements for the production, discharge, distribution, and use of recycled water. These requirements are contained in the California Code of Regulations, Title 22, Division 4, Chapter 3, Reclamation Criteria, Sections 60301 through 60475, and Title 17. On June 7, 2016, the State Water Resources Control Board adopted Water Reclamation Requirements for Recycled Water Use, which provides for streamlined permitting consistent with the State Water Board's Recycled Water Policy.

2006 Waste Discharge Requirements Order

On May 2, 2006, ~~T~~the State Water Resources Control Board adopted Statewide General Waste Discharge Requirements (WDRs) and a Monitoring and Reporting Program for sanitary ~~S~~sewer ~~S~~systems (Order No. 2006-0003-DWQ). The intent of the order is to regulate all collections systems in the State in an effort to reduce or eliminate the number of ~~S~~sanitary ~~S~~sewer ~~O~~overflows (SSOs) which, by their nature, pollute the environment. (A SSO is any overflow, spill, release, discharge, or diversion of wastewater from a sewer system.) The regulations were in response to growing public concern about the water quality impacts of SSOs, particularly those that cause beach closures, adversely affect other bodies of water, or pose serious health and safety or nuisance problems.

The order is applicable for all publicly owned sewage collection systems with more than one mile of sewer pipe. The City of Carson has more than one mile of sewer pipe, and therefore, is subject to this order. In response to the order, the City of Carson prepared its Sewer System Management Plan (SSMP; Updated 2015). The plan addresses the City's plans, schedules, and programs to assure that all feasible steps are taken to contain and control effects that could occur in the event of a SSO. By implementing the procedures contained in the SSMP, the occurrence of SSOs should be minimized to the greatest extent practicable throughout the City's sanitary sewer collection system. The Sewer System Master Plan is discussed further below.

California Integrated Waste Management Act (AB 939)

The California Integrated Waste Management Act of 1989 (IWMA((AB 939) provided that every city and county in the State must prepare a Source Reduction and Recycling Element in its Solid Waste Management Plan identifying how the jurisdiction would meet the mandatory state waste diversion goals of 25 percent by the year 1995 and 50 percent by the year 2000. The purpose of

AB 939 is the "reduce, recycle, and reuse solid waste generated in the State the maximum extent feasible."

The term "integrated waste management" refers to the use of a variety of waste management practices to safely and effectively handle the municipal solid waste stream with the least adverse impact on human health and the environment. AB 939 established a waste hierarchy as follows:

- Source Reduction;
- Recycling;
- Composting;
- Transformation; and
- Disposal.

In 2008 pursuant to the Per Capita Disposal Measurement System Act (SB 1016) the Department of Resources Recycling and Recovery (CalRecycle) implemented a new per capita disposal and goal measurement system that changes the emphasis from an estimated diversion measurement to an actual disposal measurement factor and evaluates program implementation efforts. As a result, the IWMA's 50 percent diversion requirement was changed so that it was measured in terms of per capita disposal expressed as pounds per person per day.

California's 75-Percent "Recycling" Goal (AB 341)

AB 341 established a policy goal that no less than 75% of solid waste generated in the State be source reduced, recycled, or composted by the year 2020, and required CalRecycle to issue a report to the Legislature recommending strategies to achieve that goal by January 1, 2014, CalRecycle has since issued legislative reports, identifying focus areas regarding waste management, and concepts developed to help achieve the 75% diversion goal.

Renewables Portfolio Standard

As most recently amended by SB 100 (2018), California's Renewables Portfolio Standard requires retail sellers of electric services to increase procurement from eligible renewable energy resources to 33 percent of total retail sales by 2020, 44 percent of total retail sales by 2024, 52 percent of total retail sales by 2027, and 60 percent of total retail sales by 2030. SB 100 also established a new State policy goal that calls for eligible renewable energy resources and zero-carbon resources to supply 100 percent of electricity retail sales and 100 percent of electricity procured to serve all state agencies by December 31, 2045.

Building Energy Efficiency Standards

Title 24, Part 6 of the California Code of Regulations regulates the design of building shells and building components. The standards are updated periodically to allow for consideration and possible incorporation of new energy efficiency technologies and methods. The California Energy Commission (CEC) adopted the 2016 Building Energy Efficiency Standards (2016 Building Standards), effective January 1, 2017. The CEC presently is completing the rulemaking proceedings for the 2019 Building Standards, which will go into effect on January 1, 2020.

The California Public Utilities Commission, CEC, and CARB also have a shared, established goal of achieving Zero Net Energy (ZNE) for new construction in California. The ZNE goal generally means that new buildings must use a combination of improved efficiency and renewable energy generation to meet 100 percent of their annual energy need, as specifically defined by the CEC:

> A ZNE Code Building is one where the value of the energy produced by on-site renewable energy resources is equal to the value of the energy consumed annually by the building, at the level of a single 'project' seeking development entitlements and building code permits, measured using the [CEC]'s Time Dependent Valuation (TDV) metric. A ZNE Code Building meets an Energy Use Intensity value designated in the Building Energy Efficiency Standards by building type and climate zone that reflect best practices for highly efficient buildings.[1]

The key policy timelines include: (1) all new residential construction in California to be ZNE by 2020; and (2) all new commercial construction in California to be ZNE by 2030. At the time of this writing, the CEC has not promulgated a regulatory compliance pathway for statewide achievement of the ZNE goals.

In addition to the CEC's efforts, in 2008, the California Building Standards Commission adopted the nation's first green building standards. The California Green Building Standards Code (Part 11 of Title 24) is commonly referred to as CALGreen, and establishes voluntary and mandatory standards pertaining to the planning and design of sustainable site development, energy efficiency, water conservation, material conservation, and interior air quality. CALGreen is periodically amended; the most recent 2016 standards became effective on January 1, 2017. The CEC presently is undertaking rulemaking proceedings for 2019 CALGreen.

Appliance Standards

The CEC periodically amends and enforces Appliance Efficiency Regulations contained in Title 20 of the California Code of Regulations. The regulations establish water and energy efficiency standards for both federally-regulated appliances and non-federally regulated appliances. The most current Appliance Efficiency Regulations, dated January 2017, cover 23 categories of appliances (e.g., refrigerators; plumbing fixtures; dishwashers; clothes washer and dryers; and televisions) and apply to appliances offered for sale in California.

Local

As a state agency, CSUDH is not subject to local planning documents, such as the City of Carson General Plan. The pertinent City of Carson policies and guidelines are provided for information purposes only.

Wastewater

~~On May 2, 2006, the State Water Resources Control Board (SWRCB) adopted Statewide General Waste Discharge Requirements (WDRs) and a Monitoring and Reporting Program for sanitary~~

[1] CEC, 2015 Integrated Energy Policy Report, 2015, p. 41.

~~sewer systems. The regulations were in response to growing public concern about the water quality impacts of sanitary sewer overflows (SSOs), particularly those that cause beach closures, adversely affect other bodies of water, or pose serious health and safety or nuisance problems.~~

~~In compliance with the requirements of the WDRs, the City of Carson prepared its Sewer System Management Plan (SSMP; Updated 2015). By implementing the procedures contained in this SSMP, the occurrence of SSOs should be minimized to the greatest extent practicable throughout the City's sanitary sewer collection system.~~

~~The Federal Clean Water Act (33 U.S.(c) § 1251, et seq.,) provides for the regulation and reduction of pollutants discharged into the waters of the United States by extending National Pollutant Discharge Elimination System ("NPDES") requirements to storm water and urban runoff discharge into municipal storm drain systems.~~ The City of Carson is a co-permittee under the "Waste Discharge Requirements for Municipal Storm Water and Urban Runoff Discharges within the County of Los Angeles," issued by the California Regional Water Quality Control Board – Los Angeles Region, (Order No. 96-054), dated July 15, 1996, which also serves as an NPDES Permit under the Federal Clean Water Act (NPDES No. CAS614001), as well as the WDR under California law (the "Municipal NPDES Permit"), and, as a co-permittee under the Municipal NPDES Permit, the City is required to adopt ordinances and implement procedures with respect to the entry of Nonstorm Water Discharges into the Municipal Separate Storm Sewer System. The Municipal NPDES Permit contemplates the development of a Countywide Storm Water Management Plan ("CSWMP") and then a Watershed Management Area Plan ("WMAP"), in which the City will participate, which will in turn require the development and the implementation of programs for, among other things, the elimination of illicit connections and illicit discharges, development planning, development construction, and public information and education requirements, and which may require the later adoption of additional legal authority to implement such programs as they are developed by the Permittees and approved by the Regional Board. This Order implements the federal Phase I NPDES Storm Water Program requirements. These requirements include three fundamental elements: (i) a requirement to effectively prohibit non-storm water discharges through the MS4, (ii) requirements to implement controls to reduce the discharge of pollutants to the maximum extent practicable, and (iii) other provisions the Regional Water Board has determined appropriate for the control of such pollutants.

Storm Water Infrastructure

Los Angeles County Department of Public Works, through the Los Angeles County Flood Control District, manages and conveys storm water for the City of Carson. The City of Carson is within the Dominguez Channel Watershed Management Area. The Los Angeles Regional Water Quality Control Board approved the Dominguez Channel Watershed Management Area's Enhanced Watershed Management Program on April 21, 2016.

Water Infrastructure

The Rancho Dominguez Water District provides potable water service within the City of Carson. The California Water Code requires all urban water suppliers that provide water for municipal purposes either directly or indirectly to more than 3,000 customers (or supply more than 3,000 acre-feet of water annually) to prepare Urban Water Management Plans. The plans describe and

evaluate sources of supply, reasonable and practical efficient uses, reclamation, and demand management activities. The California Water Service (Cal Water) updated the Urban Water Management Plan for the Rancho Dominguez Water District in June 2016.

Countywide Integrated Waste Management Plan

Los Angeles County published their Countywide Integrated Waste Management Plan in June 1997. The most recent Annual Report was published September 2017.

City of Carson Recycling Programs

The City of Carson, through their private waste hauler franchise services, offer residential and commercial recycling.

Existing Conditions and Background

Project Site

The CSUDH 346-acre campus is located within the City of Carson, in the County of Los Angeles. **Figure 3.10-1** is an aerial photograph of the current campus, bounded on the north by Victoria Street, on the south by University Avenue, on the west by Avalon Boulevard, and on the east by Central Avenue. **Figure 3.10-1** also shows the area of the campus leased to StubHub Center's parent company, Anchutz Entertainment Group (AEG), for the StubHub Center — an athletics and entertainment venue for soccer, tennis, track and field, and cycling, including the 27,000-seat soccer stadium and associated parking.

Figure 3.10-1
Aerial Photograph of CSU Dominguez Hills Campus, 2016

The area surrounding the CSUDH campus is composed primarily of existing residential development on the north across from Victoria Street; on the south across from University Avenue; and on the west across from Avalon Boulevard. Except for the existing Pueblo Dominguez student housing on the eastern side of the campus comprising 649 beds and associated parking, significant portions of the east side campus are underutilized and available for development. Light industrial development is to the northeast and to the east across from Central Avenue. **Figure 3.10-2**, Surrounding Land Uses, illustrates existing land uses surrounding the CSUDH campus.

Figure 3.10-2
Surrounding Land Uses

Since its inception, the CSUDH campus has been planned to accommodate 20,000 full-time equivalent students (FTES). This target student capacity remains the primary goal under the 2018 Campus Master Plan. Currently the total existing campus physical capacity with all of its classrooms, laboratories, and other instructional space is at a level that will support approximately 11,000 FTES. The Guidelines for the 2018 Campus Master Plan make clear, however, that several of the buildings on campus have reached the end of their useful life due to their age or condition. Further, as the student population increases to 20,000 FTES, the campus must add additional space to accommodate the increase in the number of students.

Water

Potable water is supplied to the CSUDH campus by the California Water Service Company (Cal Water, formerly Dominguez Water), Dominguez District (Dominguez District) (**Figure 3.10-3)**. The Dominguez District encompasses a 25-square mile service area, and includes most of the City of Carson, a large section of the City of Torrance, small sections of the cities of Compton, Long Beach and Los Angeles, and a portion of Los Angeles County. The Dominguez District acquires potable water from a combination of local groundwater and surface water purchased from Central Basin Metropolitan Water District of Southern California (MWD) and the West Basin Metropolitan Water District (WBMWD), which is imported from the Colorado River and the State Water Project.

The Dominguez District operates 392 miles of pipeline, nine active wells, 12 storage tanks, and seven imported water connections. Between 2010 and 2015, the District delivered approximately 29 million gallons of potable water per day to more than 32,000 service connections. The existing domestic water infrastructure on campus is depicted in **Figure 3.10-4**, which reflects numerous connections that run through the southern quarter of the campus (the former main for Dominguez

Water Company), and from east to west with a turn south to University Drive. The main water service connection for the campus is a 12-inch line on the east side of campus, just east of the California Academy of Mathematics and Science School. In addition, a 12-inch connection west of the main connection is available as a back-up if pressure drops, which has not occurred in recent years. The Dominguez District main also serves the StubHub Complex on separate connections. A third large 12-inch connection for back-up on campus is from a Cal Water connection in Victoria Street. The Child Development Center buildings in the northeast portion of campus have their own connections to the water main in Victoria Street.

Although Los Angeles County Sanitation District's (LACSD) Joint Water Pollution Control Plant (JWPCP) provides wastewater collection and treatment services for the Dominguez service area, recycled water comes from WBMWD's West Basin Water Recycling Facility (WBWRF). The University currently uses WBWFR supplied recycled water for all irrigation on campus except for the areas within the student housing complex. The West Basin's recycled water source of supply is treated wastewater effluent from the City of Los Angeles's Hyperion Wastewater Treatment Plant (Hyperion). Most of West Basin's recycled water is treated to meet California Code of Regulations Title 22 (Title 22) tertiary standards. Title 22 addresses specific treatment requirements for recycled water and lists approved uses. The recycled water distribution infrastructure is separate from the potable drinking water system. All pipes, pumps and other equipment used to transport recycled water are clearly identified as recycled water to distinguish them from the potable drinking water system.

The campus also has approximately 34 fire hydrants, not including hydrants serving the StubHub complex. Fire water for the University is served directly off the domestic waterline system for fire hydrants and building fire sprinklers. Therefore, the singular system for domestic distribution and fire flow is oversized to accommodate the requirements of fire flow. The campus does not have any water pumps for domestic/fire water system.

Figure 3.10-3
Cal Water Dominguez District Service Area

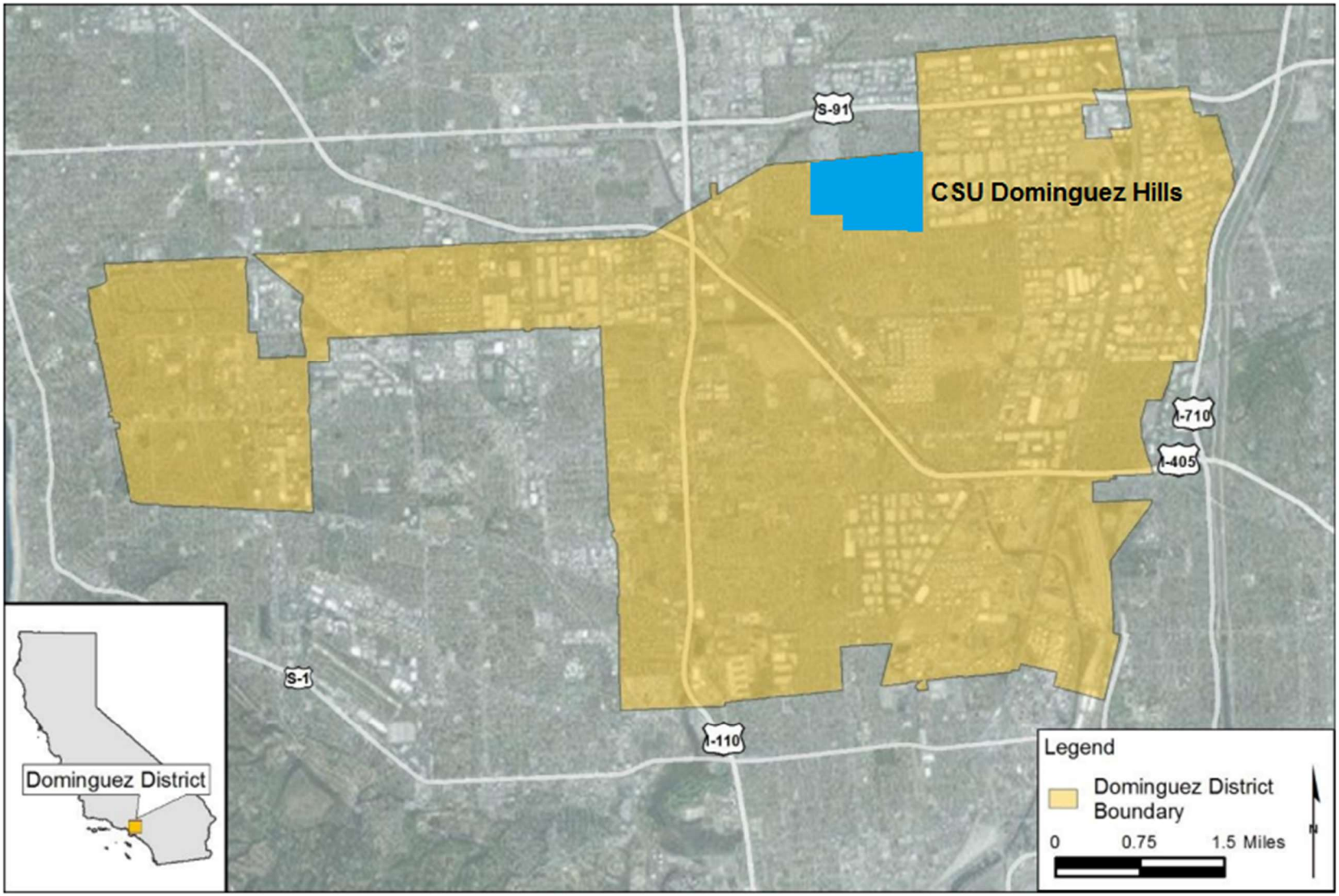
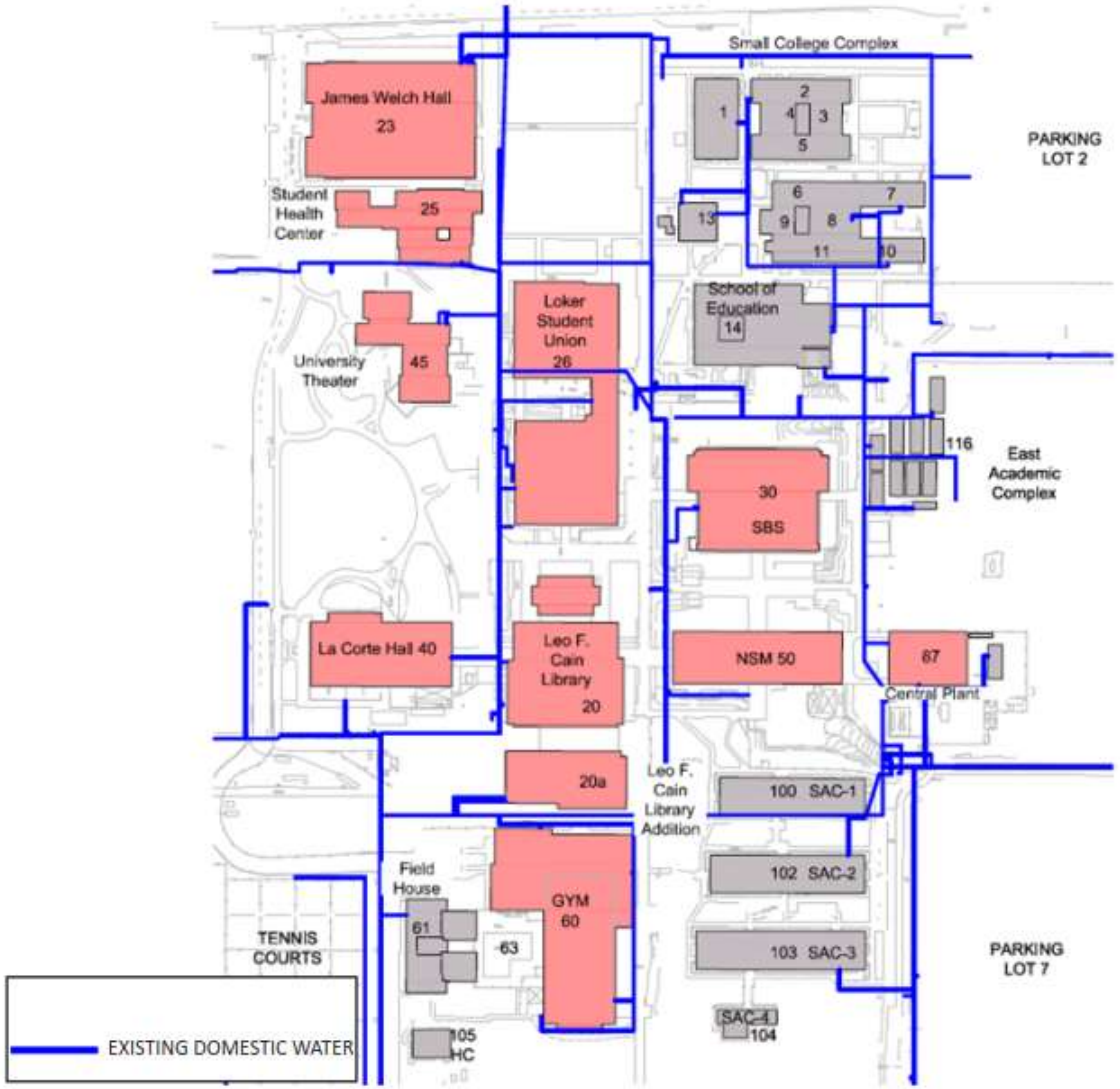


Figure 3.10-4
Existing Domestic Water Infrastructure



Wastewater

There are nine Regional Water Quality Control Boards (Regional Boards) in California that enforce water quality objectives and develop implementation plans to protect state waters. The Regional Boards develop 'Basin Plans' for their respective hydrologic areas. The federal Clean Water Act (CWA) Section 303(c) requires that the Basin Plans are reviewed and updated as needed to address changes in water quality objectives. Changes to the Basin Plans are prioritized over a three-year period. The Basin Plan for the Los Angeles Regional Water Quality Control Board (LARWQCB) is enforced through waste discharge requirements for nearly any source of waste discharge. The Sanitation Districts of Los Angeles County plan for the long-term by coordinating with and supporting the Regional Basin Plans. The Sanitation Districts are public agencies created under state law to manage wastewater and solid waste on a regional scale and consist of 24 independent special districts serving about 5.6 million people in Los Angeles County. The service area covers approximately 850 square miles and encompasses 78 cities and unincorporated territory within the county.

The City of Carson's Public Works Department provides sanitary sewer service to the entire CSUDH Campus and the StubHub sports complex. The City owns the local sanitary sewers within the City, and the Los Angeles County Department of Public Works Consolidated Sewer Maintenance District (CSMD) maintains these sewers lines. The CSMD collects user fees for operation and maintenance of existing local sewer lines. The Los Angeles County Sanitation District provides wastewater conveyance, treatment, and disposal services through trunk sewer lines generally ranging in size from 8 to 12 inches in diameter. There are currently approximately 180 miles of sewer lines and 3 pump stations within the City.[2]

The existing sewer system (**Figure 3.10-5**, Existing Sanitary Sewer Infrastructure) provides sanitary services to the campus with four connections; an 8-inch line at the north side of campus on Victoria Street; a 12-inch pipe on the western portion of the campus on Avalon Boulevard, which serves the extended education buildings and the StubHub center, a 12-inch line at Fariman Drive that serves central campus, the student housing 2 building, and the university sports fields; and an 8-inch connection at the east of Caney Avenue which serves the Physical Plant.[3]

Effluent from the City is conveyed to the Joint Water Pollution Control Plant (JWPCP) located at 24501 S. Figueroa Street in the City of Carson. The treatment plant is the largest of the Sanitation District's wastewater treatment plants.[4] The facility provides both primary and secondary treatment for approximately 260 million gallons per day (mgd) of wastewater, and has a total permitted capacity of 400 mgd.[5] Presently, the average sewer flow on the campus is approximately 389,398gallons per day. The average wastewater flow represents 0.02% of the 400 mgd permitted capacity of the JWPCP facility.

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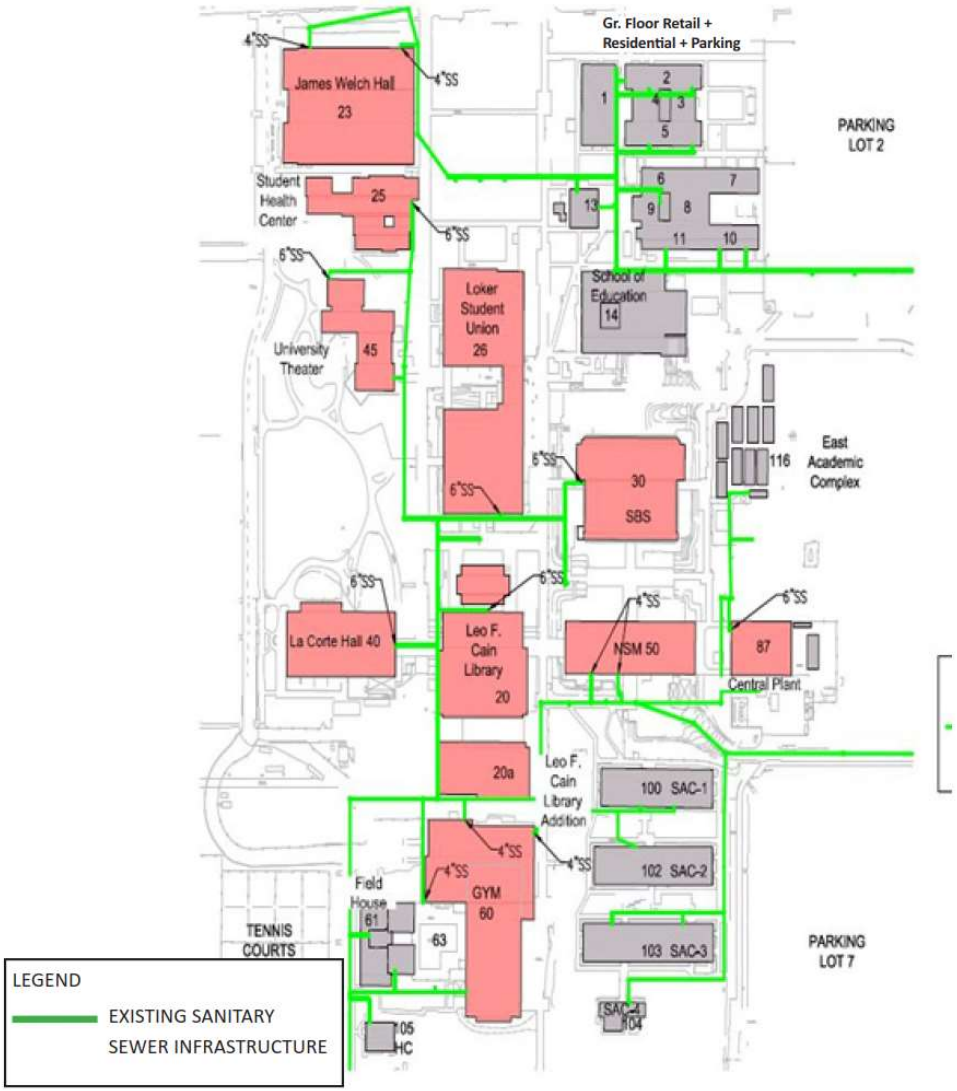
2 City of Carson. 2015. Sewer System Management Plan.

3 Wheeler & Gray. 2018. Civil Engineering Report.

4 Sanitation Districts of Los Angeles County. Joint Water Pollution Control Plant, webpage available at http://www.lacsd.org/wastewater/wwfacilities/jwpcp/default.asp (last accessed April 20, 2018).

5 *Ibid*.

Figure 3.10-5
Existing Sanitary Sewer Infrastructure (Updated)

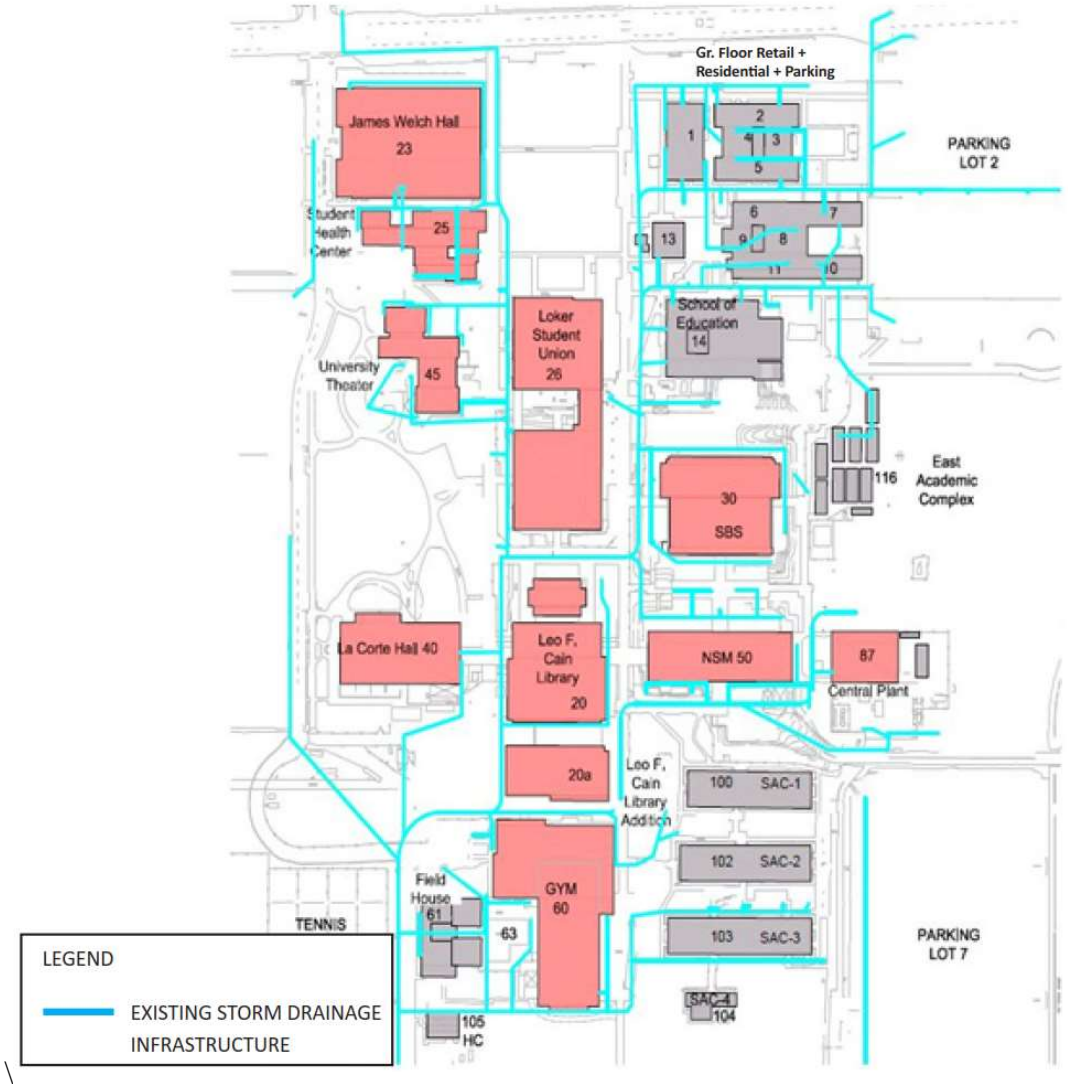


Stormwater Drainage

The existing storm drainage system serving the Core Campus discharges through a 60-inch connection to a Los Angeles County Public Works storm drain on the south side of campus at University Drive and Campaign Drive (**Figure 3.10-6**, Existing Storm Drainage Infrastructure).

Currently, the campus has issues with stormwater accumulation in some areas. The Student Health Center has recurring issues with ponding in the parking area on the southwest side, often flooding the south entrance to the building. The Student Health Center also experiences, to a lesser degree, ponding on the north side, which has been known to impact Welch Hall. On the east side of University Theater, the basement stairwell has had chronic problems with flooding, even in the smallest rain storm. A new sump-pump was installed several years ago, but is breaking down and unable to handle minor stormwater discharges.

Figure 3.10-6
Existing Storm Drainage Infrastructure (Updated)



Solid Waste

The City of Carson contracts with a private company for solid waste and recycling collection and services. This includes service to the CSUDH Campus.

As of 2016, CSUDH generated 1,656 tons of waste. Out of the waste generated, 696 tons of waste were disposed, resulting in a campus-wide diversion of 960 tons, or approximately 58%. CSUDH operates a waste management program to divert campus generated solid waste. The program includes recycling beverage containers, cardboard, newspaper, office paper, and scrap metal. Recycling containers are provided to faculty, staff, and students by Facility Services, and collection is performed by the campus' Recycling Coordinator.[6]

With the on-going campus-wide waste management diversion program that includes waste diversion and recycling efforts, the waste diversion number is expected to continue to increase. With 11,000 FTE students enrolled during the 2016-2017, the resulting solid waste factor would be approximately 0.063 ton per student per year, or 127 pounds per FTE student per year.

Waste is collected on campus for recycling, reuse, and/or disposal and taken to a transfer station at 2509 West Rosecrans Avenue, Compton, CA 90059, where the solid waste and recycling is sorted. The transfer station has a permitted capacity of 1,500 tons per day (tpd).[7] The solid waste is disposed at the Class III Sunshine Canyon Landfill, located at 14747 San Fernando Road, Sylmar, approximately 43 miles northwest of the campus. The landfill has a current maximum permitted daily disposal rate of 12,100 tpd. The landfill's average daily disposal in 2016 was 7,496 tons, which accounts for 62% of its maximum permitted daily capacity. The Sunshine Canyon Landfill currently has a remaining capacity of 62,108,650 tons (70,578,011 cubic yards), and has an estimated closure date of 2038.[8]

Other sites actively operating in Los Angeles County as solid waste landfills with a current permit include: Scholl Canyon Landfill (19-AA-0012), Burbank Landfill Site No. 3 (19-AA-0040), Lancaster Landfill and Recycling Center (19-AA-0050), Chiquita Canyon Sanitary Landfill (19-AA-0052), Calabasas Landfill (19-AA-0056), Pebbly Beach (Avalon) Disposal Site (19-AA-0061), San Clemente Island Landfill (19-AA-0063), Sunshine Canyon City/County Landfill (19-AA-2000), Antelope Valley Public Landfill (19-AA-5624), Savage Canyon Landfill (19-AH-0001), Azusa Land Reclamation Co. Landfill(19-AA-0013).[9]

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6 CSU Dominguez Hills. Facilities Services. Recycling Campus Program Webpage. http://www4.csudh.edu/facilities-services/services/recycling/index. Accessed November 2017.

7 County of Los Angeles. 2016. Countywide Integrated Waste Management Plan. 2016 Annual Report. Appendix E-4.

8 Ibid., Pg. 71.

9 California Department of Resources Recycling and Recovery (CalRecycle). Solid Waste Information System (SWIS) search page. http://www.calrecycle.ca.gov/SWFacilities/Directory/Search.aspx. Accessed December 2017.

Energy

Electricity

Southern California Edison (SCE) currently provides electricity service to the CSUDH Campus, and supplies most of its electricity. SCE generates electricity from a combination of oil, natural gas, hydroelectric, nuclear, and renewable sources. Approximately one dozen transmission facilities of 66 Kilovolt (kV) extend along Wilmington Avenue and Alameda Street, which feed the SCE service. The Nola Substation at South Broadway and Victoria Street serves the campus. In 2016, the overall electricity utilization at CSUDH was 16.5 million kilowatt hour (kWh). The existing peak load of the Core Campus is 3,024 kW, or 3.02 megawatts (MW).[10]

Electrical service by SCE to the campus consists of 16.5 kilovolt (kV) overhead distribution feeders configured in a preferred-emergency automatic transfer switch configuration, which was common at the time the service was originally installed. The SCE service entrance cable is single conductor 25 kV rated cable and capable of carrying 450 Amp continuously, which is equivalent to 9.4 Mega Volt Amp (MVA). The SCE underground cable is the determining limiting factor for the existing campus service capacity. The 16.5kV-12kV service capacity for a single transformer is 5MVA/6.25MVA. The current peak load is near 3.32MVA[11]. The campus load is roughly 66% of the single transformer service capacity.[12] **Figure 3.10-7**, Existing 12kV Power Infrastructure, illustrates the existing power infrastructure in the campus.

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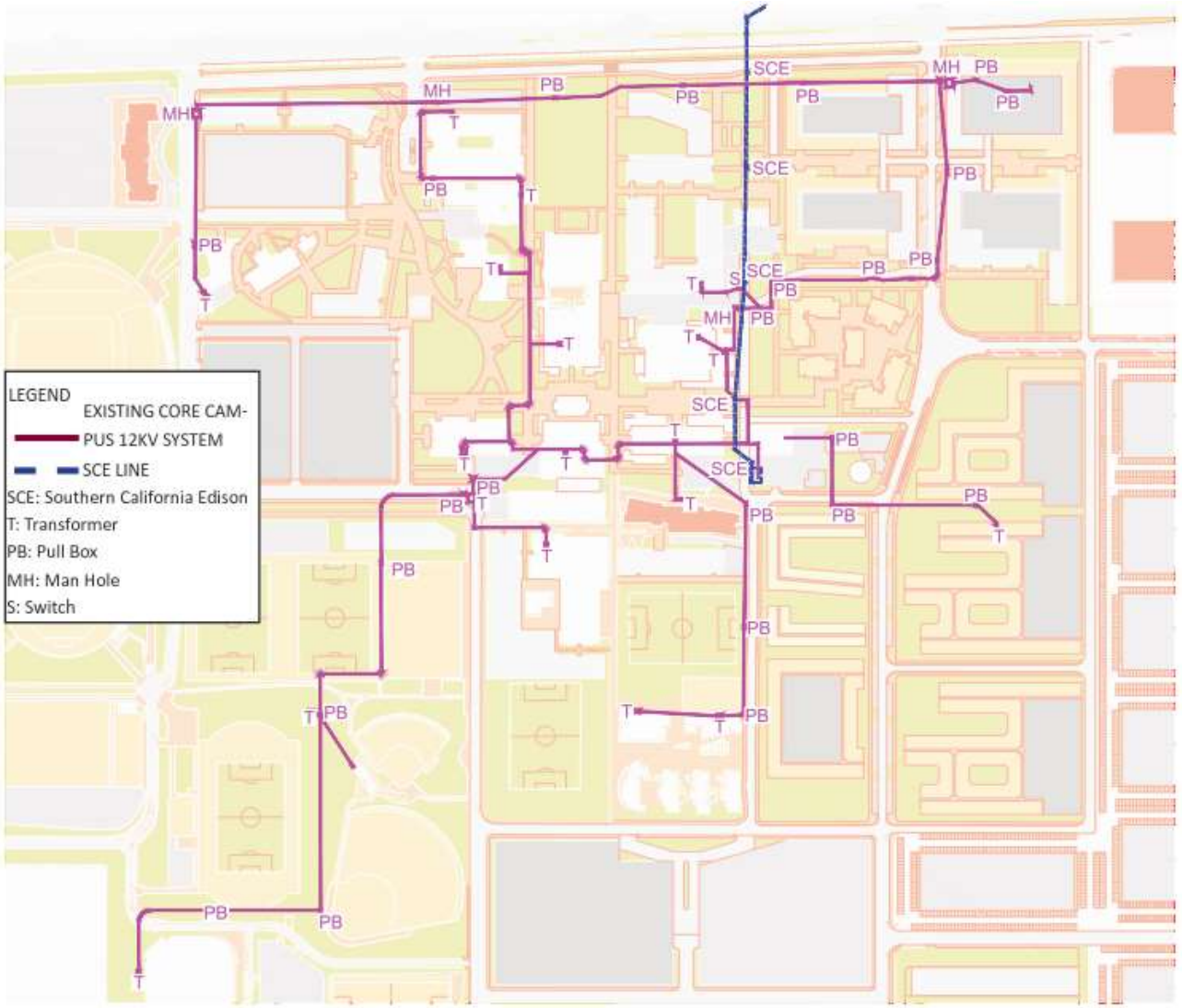
[10] Ibid., B.2-35

[11] California State University Dominguez Hills. 2018. ~~Draft~~ Guidelines for the 2018 Campus Master Plan, Appendix B.3-4.

[12] Ibid., B.3-3.

Figure 3.10-7
Existing 12kV Power Infrastructure



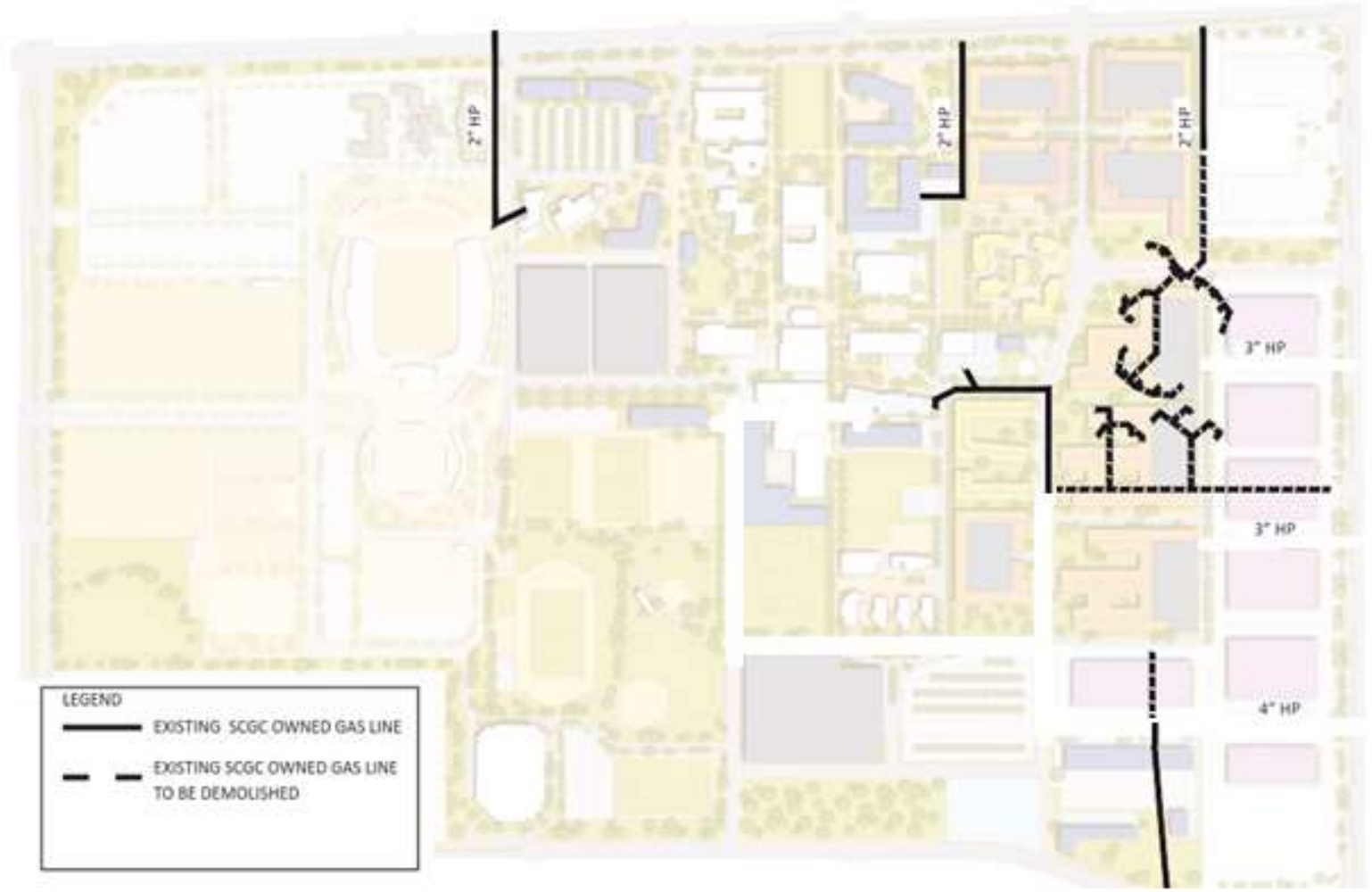
Natural Gas

The Southern California Gas (SCG) Company supplies natural gas to the campus. SCG owns and is responsible for 9,500 linear feet up to the meters of the 15,000 feet of natural gas distribution piping in the campus. The remaining 5,500 feet consist of CSUDH underground (2,800 feet) and in tunnel (2,700 feet) piping. SCG has main gas entering the campus at five locations, 3 along Victoria Street, 1 on Central Avenue and 1 on University Drive (**Figure 3.10-8**, Existing (And Proposed) Natural Gas Lines).

During 2016, campus energy records indicate that overall natural gas usage was approximately 985,000 therms.[13] This represents approximately 90 therms per student, based on an enrollment of 11,000 FTE students during the 2015-2016 academic year. The demand of natural gas in the Core Campus is largely attributed to the campus' central heating hot water and chilled water system.

[13] California State University Dominguez Hills. 2018. ~~Draft~~ Guidelines for the 2018 Campus Master Plan, Appendix B.2-35.

Figure 3.10-8
Existing (And Proposed) Natural Gas Lines



Petroleum

Transportation-related fuels, primarily gasoline and diesel, are produced and distributed throughout California. California's 19 refineries are located in the San Francisco Bay area, Los Angeles area and the Central Valley. Each day approximately 84 million gallons of petroleum are processed into a variety of products, with gasoline representing about half of the total product volume. Between December 2016 and December 2017, the production of gasoline in California averaged between 253 million gallons to 361 million gallons per week, and the production of diesel in the state averaged between 86 million gallons to 152 million gallons per week.[14]

Environmental Impacts

Project Design Elements

As discussed in Section 2.0, Project Description, the proposed project encompasses three major areas of campus-related development: (1) the Core Campus; (2) the University Village, and (3) the StubHub Center. The proposed project retains the maximum potential campus enrollment of 20,000 FTES, while providing a framework for development of campus and its facilities to accommodate campus enrollment growth from its current enrollment of approximately 11,000 FTES to 20,000 FTES over a planning horizon extending to 2035.

As discussed above, CSUDH also has prepared its Guidelines for the 2018 Campus Master Plan (Guidelines) to support and advance the University's vision of developing a vital campus that supports the facilities, buildings, improvements, and services needed for a top-performing model urban university to serve up to 20,000 full-time students. The major goals and strategies are described in detail in the Guidelines, and include:

- Infrastructure that moves the campus toward Zero-Net Energy;
- Annual energy-use-per-square-foot performance targets for common campus building types;
- Reduced use of water sources that have energy-intensive content related to treatment and conveyance;
- Mixed-use and transportation-oriented development which reduces single-occupant vehicle trips and creates a more vibrant, walkable community;
- Creating policies and education to move the campus towards net zero waste; and
- Creating a healthy and equitable campus environment for all its occupants.

It also is noted that the proposed project would benefit from CSU's 2014 Sustainability Policy and existing initiatives implemented by CSUDH's Office of Sustainability, which fall into eight major categories: (1) energy use; (2) water management; (3) waste management; (4) landscaping; (5)

[14] California Energy Commission, Petroleum Watch, January 2018.

transportation; (6) procurement; (7) academics; and, (8) engagement.[15] The goals and strategies of the Guidelines and CSU's 2014 Sustainability Policy, and efforts of CSUDH's Office of Sustainability would beneficially influence (i.e., reduce) the proposed project's impacts with respect to water supply and related infrastructure, wastewater infrastructure, stormwater infrastructure, solid waste disposal, and energy resources due to consumption.

Significance Thresholds

The analysis provided in this section evaluates the significance of the proposed project's impacts on utilities and service systems by reference to the following questions from Appendix G of the CEQA Guidelines:

Threshold 1: Would the project require or result in the relocation or construction of new or expanded water, wastewater treatment or storm water drainage, electric power, natural gas, or telecommunications facilities or expansion of existing facilities, the construction or relocation of which could cause significant environmental effects?

Threshold 2: Would the project have sufficient water supplies available to serve the project and reasonably foreseeable future development during normal, dry and multiple dry years?

Threshold 3: Would the project result in a determination by the wastewater treatment provider that serves or may serve the project that it does not have adequate capacity to serve the project's projected demand in addition to the provider's existing commitments?

Threshold 4: Would the project generate solid waste in excess of State or local standards, or in excess of the capacity of local infrastructure, or otherwise impair the attainment of solid waste reduction goals?

Threshold 5: Would the project comply with federal, state, and local managements and reduction statutes and regulations related to solid waste?

The California Environmental Quality Act (CEQA) Guidelines, Section 15126.4, and Appendix F, Energy Conservation, require that environmental impact reports (EIRs) include a discussion of the potential energy impacts of projects, with emphasis on avoiding or reducing inefficient, wasteful, and unnecessary consumption of energy (14 CCR 15000 et seq.).

[15] For more information regarding CSUDH's Office of Sustainability and its campus initiatives, please see https://www.csudh.edu/sustainability/campus-initiatives/. California State University. Sustainability Report 2014. https://www.calstate.edu/cpdc/sustainability/policies-reports/documents/CSUSustainabilityReport 2014.pdf .

The following section examines the impacts of the full build-out of the 2018 Campus Master Plan on energy consumption, including electricity, natural gas, and petroleum. This section presents a summary of the 2018 Campus Master Plan's anticipated energy needs and compares the energy use estimates of the 2018 Campus Master Plan to those of the regional and local supply and demand under existing conditions, and to regional and local supply and demand that has been forecasted for the future.

In addition, although the CEQA Guidelines provide no specific thresholds for impacts associated with energy consumption, Appendix F of the CEQA Guidelines presents guidance for evaluating whether a development project may result in significant impacts with regard to energy. The analysis provided in this section evaluates the significance of the proposed project's impacts on energy consumption by reference to the following questions:

Threshold 6: Would the project result in wasteful, inefficient, or unnecessary consumption of energy?

Threshold 7: Would the project conflict with existing energy standards and regulations?

Threshold 8: Would the project place a significant demand on local and regional energy supplies or require a substantial amount of additional capacity?

Impact Analysis

Would the project require or result in the relocation or construction of new or expanded water, wastewater treatment or storm water drainage, electric power, natural gas, or telecommunications facilities or expansion of existing facilities, the construction or relocation of which could cause significant environmental effects?[16]

Water and Wastewater Facilities

The future water/sewer demand flows take into account the full buildout of the 2018 Campus Master Plan to 2035, which includes the proposed University Village, 3,000 additional seats for the main stadium in the Stub Hub Center, and an additional 9,000 FTE to reach the 20,000 FTE. The proposed University Village would consist of 2,149 apartment units, 96,085 gross square foot (gsf) of retail development, and 572,400 gsf of campus business park.

The existing domestic water distribution system on campus has sufficient capacity to provide potable water to existing and future facilities. Presently, there is only a single, on-campus water distribution system, which is sized to serve fire flow requirements. Therefore, the system is over-sized for domestic delivery on campus. Completion of additional water service facilities on Victoria Street will provide additional flow.

[16] Electric and natural gas facilities are addressed at the end of the Section pursuant to Appendix F, Energy questions.

Continued implementation of CSUDH's water conservation programs is aimed to reduce water demand by 20%. Coupled with implementation of the water conservation strategies provided by the Guidelines, water demands on campus should not substantially increase. As illustrated on **Figure 3.10-9**, new domestic water facilities (lines, pump stations, etc.) would be constructed within the current footprint of campus facilities, and no new or expanded off-site water distribution facilities would be required to serve buildout of the project; therefore, impacts associated with the construction of new water facilities or the expansion of existing facilities would be less than significant.

New on-site sanitary sewer lines will be needed to serve the University Village housing and ~~business park~~campus business park developments. To avoid potential conflicts with proposed new and replacement facilities, rerouted lines will be installed and new service laterals will be constructed to connect the new buildings to meet their sewer needs. Service laterals will be sized based on the function and size of the proposed buildings planned pursuant to the 2018 Campus Master Plan and appropriate pipe size be used to achieve sufficient transport flow.

In general, the campus' existing sanitary sewer network is oversized. Peak sewer flow demands (GPM) are well within the design capacity of the system for all existing and future planned facilities (refer to **Table 3.10-1**). While this provides more than sufficient capacity for existing facilities and significant expansion, the system does not create transport velocities in several reaches of the system at peak rates. Additional sewer flow from new buildings and facilities will increase velocities and improve operation of the system. For this reason, no improvements to the downstream reaches are necessary. The sewer lines in the University Village will connect with the Core Campus to help reach the necessary transport velocity (refer to **Figure 3.10-10**).

All new sewer lines would be located on-site within the project area. No new off-site wastewater collection or treatment facilities would be required to serve buildout of the 2018 Campus Master Plan; therefore, impacts associated with the construction of new wastewater facilities or the expansion of existing facilities would be less than significant.

Table 3.10-1
Peak Sewer Flow Demands Existing and Future Planned Facilities

Building Name	Basic GSF	Peak Sewer Flow (GPM)	*Design Flow Capacity (GPM)
(LIB) Leo F. Cain Library	152,006.00	63.34	555.31
Library Addition	139,569.00	58.15	1,384.86
(WH) James L. Welch Hall	179,222.00	149.35	587.57
(SHC) Student Health Center	20,046.00	25.06	1,009.19
(LSU) Loker Student Union	123,033.00	153.79	932.74
(SBS) Social/Behavioral Sciences	81,000.00	67.50	584.63
(LCH) Lacorte Hall	70,331.00	58.61	554.31
(UT) University Theatre	25,201.00	13.13	447.48
(NSM) Natural Sciences/Mathematics	85,450.00	71.21	2,355.62
(GYM) Gymnasium	65,752.00	164.38	1,207.29
(SP) Swimming Pool	-	10.83	1,207.29
(BLDG A) Pueblo Dominguez Sh-1	89,220.00	111.53	1,419.93
(BLDG X) Pueblo Dominguez Sh-2	76,093.00	95.12	1,256.08
(HC) Hughes Athletic And Education	2,760.00	2.30	2,435.67
(EE) Extended Education Center	24,584.00	20.49	1,599.10
(CAMS) Ca. Academy Of Math And Science	31,667.00	26.39	6,105.96
Baseball/Softball Storage	3,380.00	0.35	92.54
(CAMS) Ca. Academy Of Math And Science	13,548.00	11.29	6,105.96
(PP) Physical Plant Shops	6,009.00	5.01	2,978.70
(PP) Physical Plant Vehicle M	2,056.00	1.71	2,978.70
(PP) Physical Plant Grounds	2,190.00	1.83	2,978.70
Stub Hub Tennis - Restrooms	12,726.00	53.03	635.20
Stub Hub Tennis - Concessions	3,301.00	13.75	635.20
Stub Hub - Locker/Facilities	111,500.00	278.75	635.20

Table 3.10-1
Peak Sewer Flow Demands Existing and Future Planned Facilities

Building Name	Basic GSF	Peak Sewer Flow (GPM)	*Design Flow Capacity (GPM)
Stub Hub - Velodrome Sports Center	2,720.00	3.40	635.20
Stub Hub Main Stadi~~i~~um - Restrooms	21,375.00	89.06	635.20
Stub Hub Main Stadi~~i~~um - Concessions	11,695.00	48.73	635.20
(PP) Physical Plant	27,826.00	23.19	2,978.70
University Warehouse	5,602.00	0.58	1,474.29
Physical Plant Warehouse	6,216.00	0.65	2,978.70
Student Housing (988 Beds)	988.00	514.58	635.20
Child/Infant Care Center	17,846.00	14.87	635.20
Lab, Faculty And Other	629,534.00	524.61	635.20
Lecture And Multimodal	93,249.00	77.71	635.20
General Administration	110,786.00	92.32	635.20
Media	52,714.00	32.95	635.20
Plan Operation Total	58,850.00	36.78	635.20
Student Recreation Center	192,538.00	481.35	1,875.32
Extended Education (Phase Ii)	21,385.00	17.82	635.20
Incubator	28,564.00	23.80	635.20
Additional Education Support Space	27,184.00	22.65	635.20
1-A Multi-Family	230.00	150.00	635.20
1-A Retail	16.45	10.00	635.20
1-B Multi-Family	249.00	162.00	635.20
1-B Retail	19.24	12.00	635.20
3-B Apartments	180.00	117.00	635.20
4-A Multi-Family	297.00	193.00	635.20
4-A Retail	20.70	13.00	635.20
4-B Multi-Family	287.00	187.00	635.20
4-B Retail	39.71	25.00	635.20
5-A Multi-Family	236.00	153.00	635.20
5-B Multi-Family	340.00	221.00	635.20
5-C Multi-Family	330.00	215.00	635.20

Table 3.10-1
Peak Sewer Flow Demands Existing and Future Planned Facilities

Building Name	Basic GSF	Peak Sewer Flow (GPM)	*Design Flow Capacity (GPM)
6-A Business Park	345.60	288.00	3,402.70
6-B Business Park	140.40	117.00	3,402.70
7-A Business Park	86.40	72.00	3,402.70

Source: Wheeler & Gray. 2018. *Civil Engineering Report.*

Figure 3.10-9
Existing and New Domestic Water Infrastructure

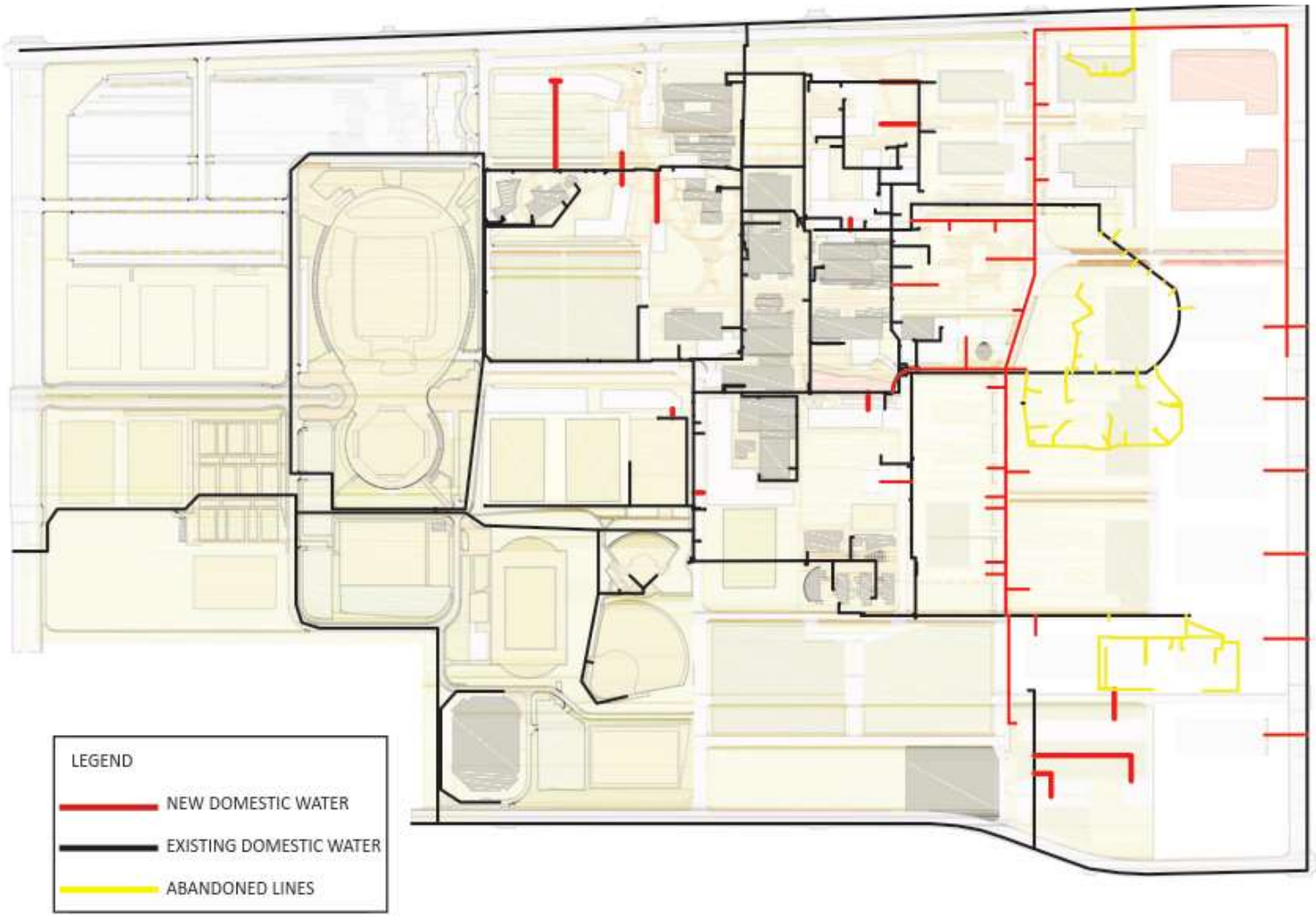
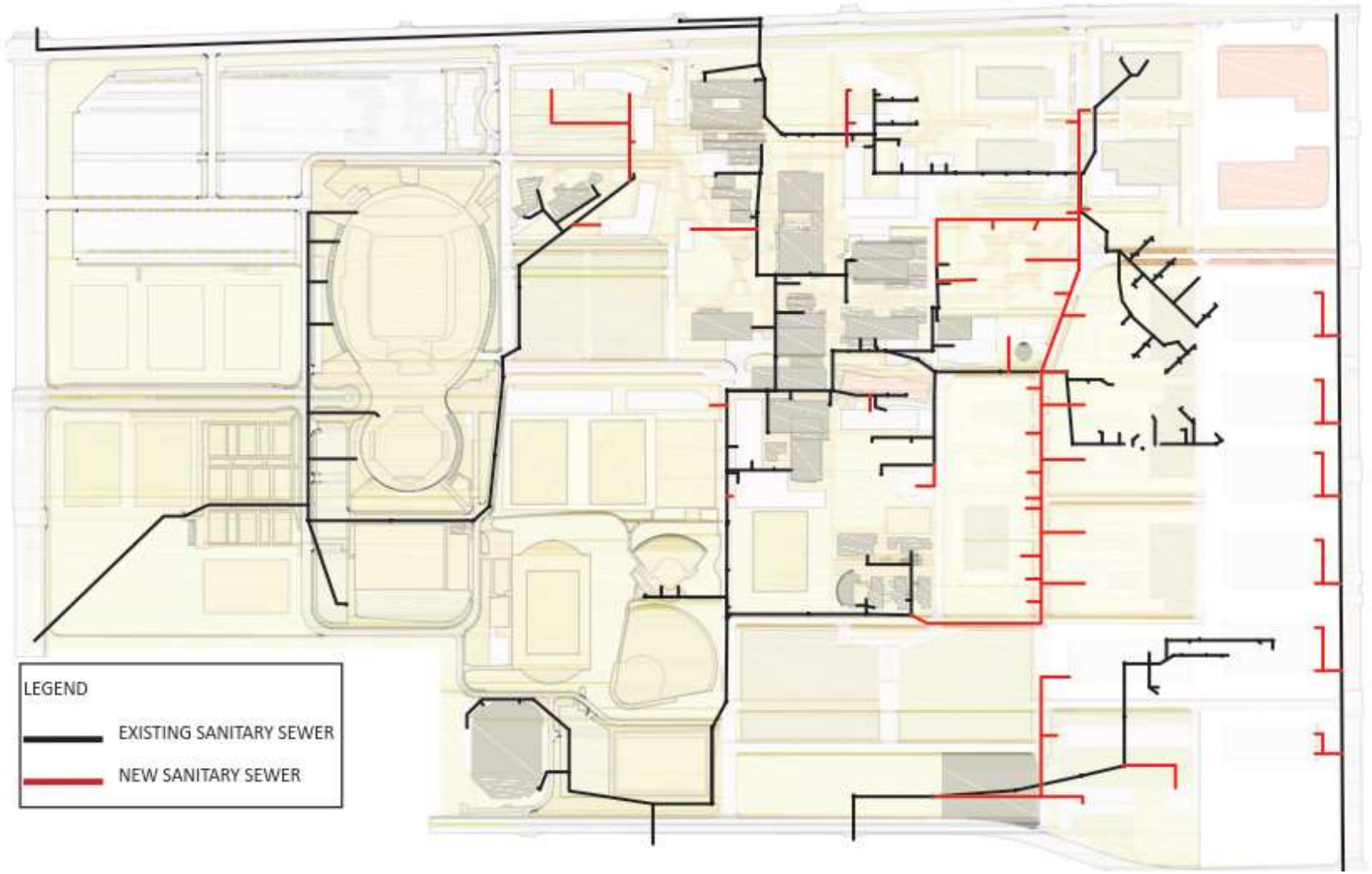


Figure 3.10-10
Existing and New Sewer Infrastructure



Stormwater

At 344 acres, the CSUDH site represents a large urban site area for which stormwater runoff must be safely captured, cleaned and conveyed to the Los Angeles County Flood Control District (LACFCD) 60-inch storm drain facility located at the south end of the campus along University Drive at Campaign Drive. Limits on the volume of run-off entering this facility from the Campus property have also been specified by the LACFCD. As regulated by the Environmental Protection Agency (EPA), this stormwater must also be treated via on-site filtration systems to eliminate pollutants such as oil and trash that could contaminate natural waterways or the ocean.

As provided in the Guidelines, the long-~~-~~term stormwater drainage strategy for buildout of the campus Master Plan is to provide sufficient site area to retard stormwater and reduce peak discharge rates below the Los Angeles County limit of stormwater discharge during a 50-year storm event. As with the Core Campus area, the University Village will be required to adhere to the new Los Angeles County restriction for stormwater discharges to PD 0961 (County Constructed) to 1.52 cubic feet per second (CFS) per acre drained during a 50-year storm event and prohibits discharge to PD 242 and MTD 1520. This will require retarding of stormwater on-site to reduce peak discharges.

As part of the master planning process, an approach was developed to meet the LACFCD and EPA requirements. This approach relies on the capture of stormwater run-off on each new development site on the campus (where new impervious surfaces like building roofs, concrete walkways and parking lots are to be constructed) and routing it through a series of shallow vegetated bioswales and bioretention areas that will remove pollutants before the stormwater is discharged into underground conveyance drain pipes. These pipes will in turn discharge into the large LACFCD storm drain facility on University Drive. Estimations of approximately 4 % of a development site will be devoted to vegetated bioswales with a depth of 18 inches, and are expected to be located at the site's perimeter.[17] In addition, storage pipes can be constructed underground with lengths that produce volume sufficient for storage capacity.[18]

The Sustainability Guidelines incorporate water strategies and plans to prioritize stormwater management. The south campus area includes a large open space area north of University Avenue as an area set aside for stormwater management. **Figure 3.10-11,** illustrates some of the storm-water management techniques. Future campus development will be implemented with the sustainability guidelines and features, which will result in the net increase in the amounts of pervious surfaces along with the use of natural stormwater management strategies, including bioswales and infiltration, resulting in an overall reduction in the piped stormwater conveyance requirement to meet the demands of a 10-year storm event.

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[17] Because the CSUDH soils do not appear to be highly conducive to infiltration, the use of infiltration facilities such as infiltration trenches designed to retain storm-water while simultaneously recharging underground aquifers are therefore not thought to be an appropriate form of storm water management at CSUSH Campus.

[18] California State University, Dominguez Hills. ~~Draft~~ Guidelines to the 2018 Campus Master Plan, Appendix B.4-19.

Figure 3.10-~~2~~11
Examples of Stormwater Management Techniques

Top: water conserving planting; Bottom left: rain garden; Bottom right: bioswale with filtration vault.

Furthermore, in compliance with existing requirements, on-site structural or treatment control Best Management Practices (BMPs) will be included in all future campus development. Examples of these best practices may include:

- Effectively prohibit non-stormwater discharges;
- Reduce the discharge of pollutants from stormwater conveyance systems to the maximum extent practicable;
- Provide reduced width sidewalks and incorporate a landscape buffer between sidewalks and streets;
- Design streets for minimum required pavement widths;

- Use permeable materials for sidewalks, driveways, parking lots, or interior roadway surfaces (e.g. hybrid lots, parking groves, permeable overflow parking, etc.);
- Use open space development that incorporates smaller lot sizes (e.g. multi-story construction);
- Use green roofs on top of buildings;
- Reduce overall imperviousness associated with parking lots by providing compact car spaces, minimizing stall dimensions, incorporating efficient parking lanes, and using pervious materials in spillover parking areas;
- Direct rooftop runoff to pervious areas such as yards, open channels, or vegetated areas and avoid routing rooftop runoff to the roadway or the storm water conveyance system;
- Vegetated swales (bioswales) and strips;
- Extended/dry detention basins;
- Infiltration basins;
- Infiltration trenches;
- Wet ponds;
- Constructed wetlands;
- Oil/water separators;
- Catch basin and/or storm drain inserts;
- Continuous flow deflection/separation systems;
- Media filtration;
- Bioretention facility;
- Dry-wells;
- Cisterns;
- Foundation planting;
- Normal flow storage/separation system;
- Clarifiers; and
- Filtration systems

With implementation of the Sustainability Guidelines' design features, including the measures listed above that reduce stormwater generation, and mandatory compliance with existing regulations impacts on the regional stormwater system and infrastructure would be less than significant.

Telecommunications Facilities

Buildout of the Master Plan would not require the extension, replacement or upgrade of any off-site telecommunication facilities. Any new or upgraded facilities on-site would be constructed with the building footprints as identified on the Master Plan Land Use Plan. Therefore, no impacts associated with the construction of or expansion of telecommunication facilities would occur.

Would there be sufficient water supplies available to serve the project and reasonably foreseeable future development during normal, dry and multiple dry years?

The proposed project entails the development of new and expanded facilities in all three areas of the 344-acre campus, including the Core Campus, the StubHub Center, and the new University Village. The planned new and expanded facilities would result in an increase in CSUDH's water demand on available supplies.

As noted in the Existing Conditions discussion above, in 2017 monthly demand of potable water for the campus was 9.5 AF, or approximately 114 acre-feet per year (AFY). To calculate the proposed project's estimated future water demand, the following method was applied to all improvements under the proposed project: the FTES or unit increase, was multiplied by a water demand figure from the Los Angeles County Sanitation District's (LACSD) Mean Loading tabulation for that land use type.

A water demand and supply analysis was completed for the project and is included as Appendix G. The campus's anticipated enrollment increase of 8,467 FTES was multiplied by 20 gallons per day (GPD) per student, which results in an increase of 169,340 GPD and 125 AFY. The increase in market rate apartments, commercial building space, retail space, and stadium capacity was also considered in the calculations of the project's estimated total future water demand. The net increase of 988 student housing beds would result in a 61,750 GPD and in a 58 AFY increase in water demand. The additional 2,149 market rate apartments would increase demand by 375 AFY. The University Village's commercial business space, a 572,400 gross square feet space, would increase demand by 128 AFY. Retail space in the University Village, at 96,085 gross square feet, would increase demand by 16 AFY. The Stub Hub center's increase in capacity would result in an increase of 2 AFY.

As shown in **Table 3.10-2**, the proposed project would increase total domestic/potable water demand by a total of 648.8 AFY. Thereby, total demand of the Campus in 2035 would be approximately 763 AFY.

~~Table 3.10-2~~
~~Total Projected Increase in Additional Water Demand for Total Buildout~~

~~Campus Elements~~	~~Demand/ Load Increase~~	~~Demand/ Load Unit~~	~~Gallons/ Day per unit~~	~~Total Additional DAILY Load/ Demand (gallons)~~	~~Total Additional DAILY Effluent Load (millions of gallons, MGD)~~	~~Annual Use~~	~~Unit of Annual Use~~	~~ANNUAL Additional Water Demand (AF)~~
~~*Campus Core*~~								
~~Student FTE~~	~~8,467~~	~~FTE~~	~~20~~	~~169,340~~	~~0.17~~	~~240~~	~~Academic Days~~	~~124.7~~
~~Student Housing *~~	~~494~~	~~Room~~	~~125~~	~~61,750~~	~~0.06~~	~~10~~	~~Months of Residency~~	~~1.9~~
~~*University Village*~~								
~~Market Rate Apartments~~	~~2,149~~	~~Dwelling Unit~~	~~156~~	~~335,244~~	~~0.34~~	~~365~~	~~Days~~	~~375.5~~
~~Retail Space~~	~~572,400~~	~~Square Feet~~	~~0.20~~	~~114,480~~	~~0.11~~	~~365~~	~~Days~~	~~128.2~~
~~Commercial Space~~	~~96,085~~	~~Square Feet~~	~~0.15~~	~~14,413~~	~~0.01~~	~~365~~	~~Days~~	~~16.1~~
~~*Stub Hub Center*~~								
~~Stadium~~	~~3,000~~	~~Seats~~	~~10~~	~~30,000~~	~~0.03~~	~~24~~	~~Sold Out Events~~	~~2.2~~
~~Totals~~					~~0.73~~			~~648.8~~

~~* Based on 988 additional beds, two beds per housing Room.~~

In accordance with the Urban Water Management Planning Act, the California Water Service Company (Cal Water), Dominguez District adopted the 2015 Urban Water Management Plan (UWMP). According to the 2015 UWMP, the District would have a projected potable water supply of 34,796 AFY in 2020 and 34,971 AFY in 2035. The District has projected entitlements of 31,508 AF of water in 2020 and 31,683 AF in 2035. Therefore, net available water supplies to support the demand of the project would be 3,288 AF in 2020 as well as in 2035. Buildout of the Master Plan would generate an additional demand of 648.8 AFY in 2035; therefore, the District would have adequate supply to serve the Campus in addition to its other projected entitlements in normal years.

The 2015 UWMP also includes projected supply and demand totals for a single dry year and multiple dry years. The supply figures are based off CWS's total projected water supply volumes through 2040. The demand figures are based on anticipated demand from growth in the District's service area, according to the 2012 Southern California Association of Governments (SCAG) regional growth forecasts.

Tables 3.10-3 and **3.10-4** below, show that anticipated demand from current entitlements would not exceed CWS's water supply projections in the future planning years.

Table 3.10-3
Single Dry Year Supply and Demand Comparison (AF)

	2020	**2025**	**2030**	**2035**	**2040**
Supply Totals*	43,623	44,376	45,395	46,554	47,858
Demand Totals	43,623	44,376	45,395	46,554	47,858
Difference	0	0	0	0	0

* Supply totals include an aggregation of potable and non-potable/recycled water.

Source: California Water Service. Dominguez District: 2015 Urban Water Management Plan. June 2016. Table 7-3.

Table 3.10-4
Multiple Dry Year Supply and Demand Comparison (AF)

		2020	2025	2030	2035	2040
First Year*	Supply Totals**	43,623	44,376	45,395	56,554	47,858
	Demand Totals	43,623	44,376	45,395	56,554	47,858
	Difference	0	0	0	0	0
Second Year*	Supply Totals**	43,210	43,964	44,981	46,138	47,440
	Demand Totals	43,210	43,964	44,981	46,138	47,440
	Difference	0	0	0	0	0
Third Year*	Supply Totals**	43,412	44,165	45,183	46,341	47,644
	Demand Totals	43,412	44,165	45,183	46,341	47,644
	Difference	0	0	0	0	0

* The multiple dry water years used are 2013 through 2015.

** Supply totals include an aggregation of potable and non-potable/recycled water.

Source: California Water Service. Dominguez District: 2015 Urban Water Management Plan. June 2016. Table 7-4.

Based on the analysis conducted for the project, the increase in water demand from buildout of the project in 2035 is anticipated to total 648.8 AFY. As reflected in Tables 3.10-3 and 3.10-4, the UWMP does not show additional available supply in single or multiple dry years. Therefore, due to the uncertainty regarding water supply over the planning horizon of the project, impacts associated with water supply are considered potentially significant.

UWMPs are required to be updated every five years, and therefore, the CWS UWMP would be subject to revision in 2020. As part of its next round of water supply planning, the CWS would incorporate growth projections for various jurisdictions within its service area, including the CSUDH campus. It is anticipated that any needs for additional supplies based on adoption of the proposed project would be addressed and accounted for in the next and subsequent updates to the UWMP.

Also, CSUDH will continue to build on sustainable programs already in place and set forth a series of practical ways the campus can implement water conservation designs, features, and programs in campus development, operations, and educational programs. Future development projects on-campus would be required to assure adequate measures are proposed to meet all water conservation objectives incorporated into the Guidelines. The Guidelines' Sustainability section includes a wide range of water conservation programs and measures, including water efficiency, with a target of 20% reduction by 2020. Water saving strategies include using non-potable water for non-potable uses, using recycled and reclaimed water for irrigation (on drought tolerant landscaping) and using water conserving plumbing fixtures. This reduction in water use will result in a subsequent proportional reduction in generation of wastewater. Reclaimed treated water will be used for landscaping, cooling water towers, and other non-potable uses on campus, thereby reducing the

~~demand for potable water for these uses. With implementation of Guidelines, campus water use is anticipated to decrease with the implementation of the Master Plan.~~

~~Currently, adequate water supply exists from CWS in normal years through 2035. However, due to future uncertainties regarding water supply in dry years through 2035, the proposed project would result in a significant impact.~~

Would the project result in a determination by the wastewater treatment provider that serves or may serve the project that it does not have adequate capacity to serve the project's projected demand in addition to the provider's existing commitments?

The City of Carson's Public Works Department provides sanitary sewer service to the entire CSUDH campus including the Stub Hub Center complex. Effluent from the City is conveyed to the JWPCP, which has a total permitted capacity of 400 mgd. The JWPCP treats 260 mgd, and has a remaining capacity of 140 mgd. The current average wastewater flow on the CSUDH Campus is 389,398gpd[19], which represents 0.2% of the remaining capacity of the JWPCP facility.

The future wastewater demand takes into account the full buildout of the 2018 Campus Master Plan to 2035, which includes the proposed University Village, 3,000 additional seats for the main stadium in the Stub Hub Center, and an additional 9,000 FTE. The average wastewater flow on the CSUDH campus in 2035 will be approximately 1,295,003 gpd, which represents 0.93% of the 140 mgd remaining capacity of the JWPCP facility. Implementation of the Guidelines' water conservation designs, features, and measures would further reduce wastewater generation. Adequate capacity for wastewater treatment would be available to serve buildout of the project. Therefore, the campus' projected demand for wastewater treatment would not exceed the wastewater treatment requirements of the LARWQCB or exceed the capacity of the JWPCP facility. Impacts would be less than significant.

Solid Waste

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

CSUDH generated 1,655 tons of solid waste in 2016, with 11,000 FTE students enrolled during the 2016-2017 academic year. Given these figures, the resulting solid waste factor would be approximately 0.063 tons per student, or 127 pounds per FTE student. Based on the same waste generation factor of 0.063 tons per student, CSUDH is expected to generate 3,011 tons of solid waste assuming 20,000 FTE students. This would be an increase of 82% in a period of two decades. With a continuing increase in recycling and waste reduction, and the goal of 80% waste diversion, the amount of non-recyclable waste generated by the project is anticipated to be approximately 1,265 tons per year.

[19] Wheeler and Gray. 2018. Civil Engineering Report.

The Sunshine Canyon Landfill has a current maximum permitted daily disposal rate of 12,100 tpd, with a remaining capacity of 62,108,650 tons (70,578,011cubic yards).[20] The 1,265 tons of solid waste expected to be send by the Campus to the landfill, represents 0.002% of the remaining capacity of the Sunshine Canyon Landfill. The additional solid waste contribution would be negligible, and the landfills are expected to have adequate permitted capacity to meet this demand.

As the project will generate a relatively small amount of solid waste and includes implementation of comprehensive waste reduction and diversion programs in compliance with existing laws and requirements that will divert 80% of waste from landfills, this impact is considered less than significant.

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

The Guidelines Sustainability Policy and Goals establish the goals of reducing solid waste disposal by 80% by the year 2020, recommends that the campus move towards a zero-waste goal, and develops a more comprehensive waste management plan. The Guidelines also recommend that future Sustainability Committees develop ways to extend the recycling program to include batteries and electronics.

As of 2016, CSUDH generated 1,655 tons of solid waste, out of which 696 tons of waste was disposed, resulting in a campus-wide diversion of 690 tons, or approximately 58%. CSUDH's commitment to a campus-wide waste management program has resulted in this diversion of waste from landfills through recycling and other waste diversion measures. CSUDH's waste diversion program includes dedicated blue recycling containers, which come in three (3) different sizes: "small" for under the desk, "medium" for hallways, lobbies, or large offices, and "large" (wheeled) for copy rooms and storage rooms. The bins recover recyclable material throughout the campus.[21] The waste reduction is anticipated to continue to grow consistent with the State law of diverting at least 75%[22], and the California State University's goal of diverting 80% of waste by 2020.[23]

Telecommunications Facilities

Buildout of the Master Plan would not require the extension, replacement or upgrade of any off-site telecommunication facilities. Any new or upgraded facilities on-site would be constructed with the building footprints as identified on the Master Plan Land Use Plan. Therefore, no impacts associated with the construction of or expansion of telecommunication facilities would occur.

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20 2018 Guidelines, Pg. 71.

21 CSUDH Facility Services. Recycling webpage. Available http://www4.csudh.edu/facilities-services/services/recycling/index. Accessed December 2017.

22 Assembly Bill No. 75 and Assembly Bill No. 341, 2011-2012, Chapter 476, 2011 Cal Stat. Available at https://leginfo.legislature.ca.gov/faces/billNavClient.xhtml?bill_id=201120120AB341. Accessed December 2017.

23 The California State University. Sustainability Report 2014. Available https://www.calstate.edu/cpdc/sustainability/policies-reports/documents/CSUSustainabilityReport2014.pdf. Accessed December 2017.

Water Supplies

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

The CSUDH Campus Master Plan is not specifically included in Cal Water's Dominguez system 2015 Urban Water Management Plan (UWMP); therefore, its water requirements are addressed in the project WSA[24] (See Appendix G).

Per the WSA prepared for the project, the Dominguez District's actual water demand from 2010 to 2017 (Table 3) was used to estimate future potable and recycled water demands under a no project scenario for this analysis. This baseline for the analysis is included in Table 5 within the WSA. It is noted that projections of future water demand incorporate expected water savings from plumbing codes and appliance standards for residential and commercial toilets, urinals, clothes washers, dishwashers, and showerheads. The baseline was then compared to the projected water demands of a conservative, worst case scenario future buildout of the campus master plan to determine the impacts the project would have on water supplies.

In 2025, the campus's increase in demand under a buildout of the worst case scenario is 0.38% of the total Dominguez District demand. The estimated increase in the campus's potable water demand at build out in 2035 is 338 AFY, or approximately 1.0% of projected 2035 and 2040 Dominguez District demand. This analysis concludes that there would be sufficient water supply available to serve the proposed project, which provides for less housing than that of the worst case scenario used as the WSA's basis, and reasonably foreseeable future development during normal, dry, and multiple dry years. Therefore, the project would have a less than significant impact in regards to water supply.

Energy

Would the project result in wasteful, inefficient, or unnecessary consumption of energy?

Would the project conflict with existing energy standards and regulations?

Would the project place a significant demand on local and regional energy supplies or require a substantial amount of additional capacity?

Electricity

Peak load of existing buildings was 3,024 kilowatts (kW) in 2016, and the overall electricity utilization was 16.5 million kWh.[25] Based on the buildings being considered for development as part of the 2018 Campus Master Plan, net of any existing building load to be demolished, the long term electric power coincident peak demand to be supplied to the Core Campus load is estimated

[24] The 2019 WSA prepared for the Increased Student Housing Alternative (ISH) was used for the water supply analysis of the proposed project due to its conservative worst case scenario impacts. The proposed project's elements are identical to that of the ISH Alternative, excluding the increase in student housing units.

[25] Ibid., Appendix B.2-35.

at 13,615kW. This represents approximately 0.68kW per student, based on an enrollment of 20,000 FTES. The net load will decrease in daytime peak demand due to the proposed photovoltaic produced power. The reduced peak load is anticipated to be 9,011kW, or 0.45kW per student, based on an enrollment of 20,000 FTES. Several new projects will result in changes to the peak demand:

- A new 1,000kW battery storage system was installed and began operation in 2017. The battery system will reduce electric power peak demand by 1,000kW for up to 4-hours. The Battery Storage System will be connected to existing switch CP-CPHV5 with a 250kcmil feeder conductor size. The new feeder will also be used to supply power to the new electric chiller installation;
- The cooling tower replacement project will result in a net increase in load when all three cooling tower cells are in operation. This new project will be supplied 480V power from the existing Central Plant 12kV unit substation, CPT1 and CPT2; and
- The Science Building will result in an estimated net increase of up to 425kVA based on 5W/sqft., and the SAC 100 building is being demolished as part of the Science Building project, which will result in a decrease of approximately 100kVA.

A new electric service is required to supply the total load. The existing service transformers cannot supply the total load, and the space where the existing service equipment is installed is not adequate for the new larger transformers. Construction dates have been assigned to new buildings in order to prepare a load growth estimate. A potential scenario to accommodate the increase in Core Campus electric power capacity was developed as part of the 2018 Campus Master Plan (2018 Guidelines, Appendix Pg. B.3-6). Based on the potential scenario, a new campus service is required sometime between 2023 and 2025, if planned construction is completed according to the dates assigned. The load forecast should be updated when actual planned construction dates become available.

The University Village electric load cannot be supplied from the existing or new electric service for the Core Campus if the SCE service voltage remains 16.5kV. The new Core Campus substation design must be coordinated with the SCE design and planning for the University Village area. The University Village area is subdivided into building parcels that will be developed over a 15-year time period. The total estimated peak load for the University Village is 17,628kVA. Taking into consideration the photovoltaic power anticipated to be produced at the University Village, the estimated peak load will be 9,132kVA. Electric vehicle service loads will add another 4,900kVA of power demand. Provisions for photovoltaic power are now included in the Title 24 Energy Code, however, the amount of photovoltaic power that could be installed is variable. A potential scenario to accommodate the increase in University Village electric power capacity was developed as part of the 2018 Campus Master Plan (2018 Guidelines, Appendix Pg. B.3-14).

Electric power for the University Village can be provided in several ways as follows:

- Supply power from a new upgraded SCE substation that also would supply power to the Core Campus with the infrastructure owned and operated by the campus. A consolidated single substation would require 66kV service and a 115-foot-by-160-foot substation. Rule 18 compliant metering would be required. SCE 66kV service is readily available on the

north side of the campus along Victoria Street and can be brought down using overhead lines to a new substation at the southern side of the campus along University Drive via either Central Avenue or Avalon Boulevard. The new 66kV service would be placed within existing urban street right-of-way and would not require new right-of-way or easements.

- Supply power to the entire University Village from an SCE operated and maintained underground 16.5kV distribution system with up to four 16.5kV circuits configured in two loops.
- Supply power to the University Village area loads from a combination of new SCE Core Campus substation and campus infrastructure and new SCE operated and maintained infrastructure. The capacity of the new SCE Core Campus substation is limited and could not accommodate University Village loads.

The advantages and disadvantages of each option for supplying power to the University Village would be considered as part of the SCE Method of Service (MOS) study process. If 66kV service is determined to be the best option through the MOS study process, the MOS study will also determine the route for the new overhead line to the new substation along University Drive.

The proposed project would be consistent with the California State University system's efforts to become more energy efficient and increase its use of clean burning fuels and renewable energy sources. Therefore, the proposed project would not result in increased energy demand that would necessitate the construction of new or expanded off-site distribution systems, local or regional energy supplies, or power generating capacity, and no significant impacts would result from the proposed project.

Natural Gas

During 2016, CSUDH campus energy records indicate that overall natural gas usage was approximately 985,000 therms.[26] The estimated additional natural gas use associated with new Core Campus buildings proposed under the 2018 Campus Master Plan is 177,382 therms per year[27] for a total overall natural gas usage of 1,162,382 therms annually, which represents an 18% increase over existing usage. The existing Core Campus gas heating peak is estimated at 16 million British thermal units per hour (MMBtuh). The expected addition of 38 MMBtuh for the new Core Campus heating needs results in a total long-term gas peak of 54 MMBtuh. The required natural gas capacity of the Core Campus is expected to be reduced with the proposed replacement of the existing absorption chillers with new electrical chillers.

Many of the new Core Campus buildings can be picked up by the two 2-inch SCG gas lines at Victoria Street (**Figure 3.10-**). A 4-inch line carrying 60 SIG gas will have a pressure drop of less than 10% when 54 MMBtuh of long-term gas would be transported over approximately 3,000 feet. This length corresponds to a new line that SCG will need to bring to the Central Plant location. Such a line would be sufficient for meeting long term Core Campus needs.

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[26] Ibid., B.2-35.

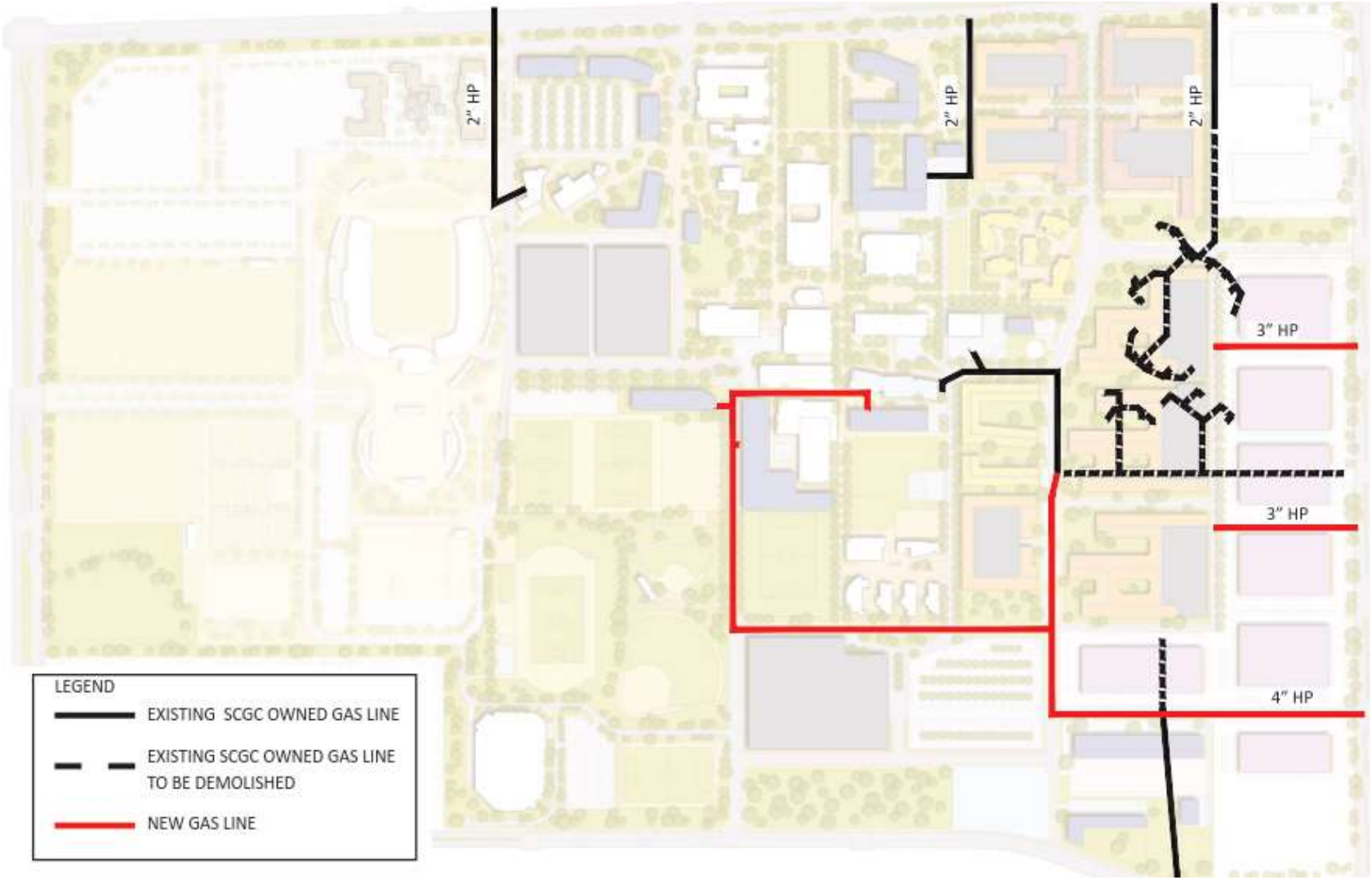
[27] Ibid., B.2-37.

A clear majority of the existing gas piping serving the east end of the campus will need to be reconfigured to accommodate the University Village. The long-term additional gas heating loads estimated for the University Village is 90MMBtuh. To accommodate this load, SCG can consider providing long term capacity in three phases. Each phase could represent a tap off their main line that runs north-south along Central Avenue. Each such phase could involve a 3-inch line operating at 60 pound per square inch gage that can carry gas over approximately 2,000 feet with less than 10% pressure drop. Each such line would be capable of supporting roughly a third of the long-term demand of 90 MMBtuh. Another option is a 3,000-foot-long line carrying gas in a 6-inch pipe that should be able to deliver the same to a common metering point.

For each new building that is tied in to an existing gas line, careful consideration of gas pressures, pipe size, and expected losses needs to occur. CSUDH will need SCG approval and coordination for all gas modifications.

The existing on-site natural gas facilities would be expanded as necessary to meet these new facility demands. However, SCG is expected to be able to accommodate the projected increase in demand from the proposed project. Therefore, the proposed project would not result in increased natural gas demand that would necessitate the construction of new or expanded off-site distribution systems, local or regional natural gas supplies, or natural gas processing capacity, and no significant impacts would result from the proposed project.

Figure 3.10-~~3~~12
Existing and New Natural Gas Infrastructure



Petroleum

Construction of the facilities in the 2018 Campus Master Plan would also result in consumption of energy in the form of transportation-related fuels, electricity, and, to a lesser extent, natural gas through the use of construction equipment, manufacture and transport of construction materials, temporary lighting, etc. No estimate of petroleum consumption for construction was presented in the Guidelines. A separate similar-sized project in the Los Angeles area, the LAX Landside Access Modernization Program, estimates gasoline consumption of 2,400 gallons and diesel consumption of 19,000 gallons during a peak construction week.[28] This represents less than 0.01% of the average weekly production of gasoline and diesel fuel in the state. Construction energy consumption is short-term and relatively minor compared to long-term regional petroleum use. As such, impacts on fuel supply during construction would be less than significant.

During operation at the full build-out of the 2018 Campus Master Plan, petroleum would continue to be consumed by the students, faculty, and staff commuting to the CSUDH campus and by those living within the University Village. The vehicle miles traveled is forecasted to increase relative to the current baseline condition given that the number of trip generators increases in the 2035 Master Plan horizon year.[29] The primary source of the increase would be proposed ~~office~~campus business park, retail and ~~market rate housing~~campus apartment housing; however, planned enrollment increases would also contribute to vehicle miles traveled. The Master Plan's enhanced transit and bicycle/pedestrian facilities would help to off-set these increases, as would implementation of TDM strategies to assist in meeting state, regional and local goals for reducing vehicle miles traveled. These TDM strategies would complement the Master Plan's enhanced transit and bicycle/pedestrian facilities and work to off-set trip generating improvements. It is anticipated that with incorporation of the Master Plan's enhanced transit and bicycle/pedestrian facilities and TDM strategies tailored to the campus needs, the proposed project would not result in wasteful, inefficient or unnecessary consumption of petroleum, conflict with existing energy standards and regulations or place a significant demand on local petroleum supplies. Impacts would be less than significant.

Cumulative Analysis

As identified in the City of Carson's Development Status Report, other ongoing and future projects have been identified in the Project area[30]. These projects are related to accommodating the projected growth within the Los Angeles region. SCE and SCG have forecasted future utility demand and concluded that excess capacity exists over the planning horizon through 2035. Based on the demand growth forecast, significant cumulative utility impacts on supply and distribution capabilities or on new supply facilities and distribution infrastructure are unlikely, thus cumulative impacts would be less than significant. In addition, new buildings would be required to meet energy consumption standards prescribed for new structures in Title 24, and all 2018 Campus Master Plan development projects would also comply with the Sustainability Guidelines.

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28 LAX Landside Access Modernization Program, Draft EIR, September 2016.

29 Transportation Impact Study, Exhibit 28.

30 http://ci.carson.ca.us/content/files/pdfs/planning/Development_Status_Report.pdf.

Consumption of transportation-related fuels would increase as the number of trip generators increases but not at the level that it would impact regional supplies of transportation-related fuels. As such, cumulative development projects would not result in a wasteful, inefficient, or unnecessary consumption of utilities or transportation-related fuel.

4.0 Other Environmental Considerations

Introduction

In accordance with CEQA Guidelines Section 15126.2, this chapter provides an overview of the 2018 Campus Master Plan's (proposed project) significant environmental impacts that cannot be avoided, significant irreversible environmental changes, and potential for growth-inducing impacts. Further, this chapter addresses the potential for secondary effects associated with implementation of the mitigation measures recommended in this environmental impact report (EIR), in accordance with CEQA Guidelines Section 15126.4(a)(1)(D). Finally, as required by CEQA Guidelines Section 15128, this chapter briefly describes why certain environmental resource areas were scoped out of this EIR.

Significant Unavoidable Impacts

CEQA Guidelines Section 15126.2(b) requires an EIR to describe any significant environmental impacts that cannot be avoided, and specifically those effects that can be mitigated but not reduced to a less-than-significant level. Therefore, the following discussion summarizes the impacts associated with the proposed project that would be significant and unavoidable based on the comprehensive assessment provided in **Section 3.0**, Environmental Analysis, of this EIR.

Air Quality

The proposed project's peak daily construction emissions (VOCs) and peak daily operational emissions (VOCs, NO_X, CO, PM_{10} and $PM_{2.5}$) are estimated to exceed the mass daily thresholds published by the South Coast Air Quality Management District (SCAQMD), and result in a potential conflict with SCAQMD's Air Quality Management Plan (AQMP). These impacts are significant and unavoidable.

Nonetheless, it is noted that the project proposes to implement comprehensive sustainability programs and features that would guide future development of the campus. For example, the proposed project would:

- Provide more on-campus student and residential housing in order to reduce commute trips and associated mobile emissions;
- Replace existing, less efficient buildings with new, more efficient buildings;
- Locate housing in close proximity to employment opportunities;
- Result in compact infill development within the campus;

- Reduce emissions through implementation of comprehensive sustainability programs, policies, and design and planning features; and,
- Demonstrate consistency with regional sustainability growth strategies and goals.

Additionally, implementation of the mitigation measures recommended in the EIR would reduce emissions to the extent feasible. Mitigation recommendations include requiring a clean fleet of construction equipment; educating campus faculty, staff and students about how to minimize emissions from consumer products; installing Energy Star appliances in appropriate settings; and, implementing a comprehensive Transportation Demand Management (TDM) Plan.

Greenhouse Gas

The proposed project's construction and operational greenhouse gas (GHG) emissions may result in a significant and unavoidable impact to global climate change because of the project's incremental, numerically positive contribution to the cumulative condition.

While the EIR concludes that such impacts would be unavoidably significant, it is noted that – like in the case of air quality – the proposed project includes various design attributes that would serve to reduce emissions. The project's operational GHG emissions also would be reduced through implementation of a mitigation measure that requires all project-related development to comply with applicable standards set forth in Chapter 6, Sustainability Guidelines, of the Guidelines for the 2018 Campus Master Plan. These standards ensure that development in the built environment goes "beyond code" and advances the University's sustainability objectives. The recommended TDM Plan, as discussed in **Section 3.9**, Traffic and Circulation, of the EIR would serve to further reduce the project's operational emissions, and specifically those related to transportation/mobile sources. It also is noted that the proposed project's construction-related GHG emissions would be reduced through implementation of the mitigation strategies recommended in **Section 3.2**, Air Quality, of this EIR.

Noise

Construction noise associated with buildout of future on-campus facilities could result in noise levels in excess of applicable noise standards, and thereby has the potential to result in significant impacts to nearby sensitive receptors. Because the precise timing, nature and intensity of construction is unknown, even with the implementation of the recommended construction mitigation measures, the noise-related impacts arising from construction activities would be potentially significant. Therefore, short-term construction noise impacts are considered significant and unavoidable.

Buildout of the proposed project also would result in increased traffic on roadways surrounding the campus. Operational noise associated with project-generated traffic would result in noise levels in excess of acceptable standards at several off-site receptor locations. With implementation of a sound wall at receptor site 14, and increasing the height of the existing wall at receptor site 23, the proposed project's operational noise impact at both sites would be reduced to less than significant. However, because these mitigation measures are infeasible, as detailed in **Section 3.6**, Noise, of the EIR, the noise-related impacts at both sites are considered significant and unavoidable.

Cumulative operational noise impacts at various receptor sites also would be considered significant and unavoidable for similar reasons.

Traffic and Circulation

As analyzed in **Section 3.9**, Traffic and Circulation, of this EIR, the proposed project would degrade the Level of Service (LOS) at numerous intersections within and around the campus, as well as on freeway segments that serve as access points to the campus as defined in the Transportation Impact Study. Due to such limitations as intersections and freeway segments being under the jurisdiction and control of the City of Carson and California Department of Transportation (Caltrans), respectively, mitigation and improvement recommendations by California State University, Dominquez Hills (CSUDH or University) are rendered infeasible. Mitigation also is infeasible because of the lack of plans or programs in place to fund and construct the recommended improvements, as well as physical constraints that preclude implementation of the necessary roadway and intersection improvements. Thus, the identified impacts of the proposed project would be significant and unavoidable.

It should be noted that the EIR recommends implementation of the TDM Plan identified in **Section 3.9**, which would reduce vehicle trip generation in a manner not accounted for as part of the EIR's impacts analysis. Additionally, all of the campus-related vehicle trips included within the analysis were assumed to be new, additional trips to the region, which is a conservative assumption. Thus, the impacts identified in **Section 3.9** are overstated.

Further, the proposed project is consistent with the Southern California Association of Governments' (SCAG) Regional Transportation Plan and Sustainable Communities Strategy (RTP/SCS) and, as such, will assist in achieving region-wide goals of reducing vehicle trips and associated emissions. More specifically, the project is consistent with RTP/SCS strategies that recognize the benefits of including locating housing close to employment and activity centers; encouraging infill development, and compact, mixed-use projects; forming urban villages that provide housing and encourage walking, bicycling and the use of public transit systems; developing commute trip reduction plans that encourage employees who commute alone to consider alternative transportation modes; developing shuttle systems to reduce congestion and create shorter commutes; and creating ridesharing programs.

~~Utilities (Water Supply)~~

~~A water demand and supply analysis was completed for the project (refer to Appendix G). Buildout of the Master Plan would result in approximately 648.8 acre-feet per year (AFY) of additional potable water demand, beyond current entitlements. According to the 2015 UWMP, the California Water Service (CWS) Dominguez District would have a projected potable water supply of 34,796 AFY in 2020 and 34,971 AFY in 2035 (normal years). The District has projected entitlements of 31,508 AF of water in 2020 and 31,683 AF in 2035. Therefore, net available water supplies to accommodate the demand of the project would be 3,288 AF in 2020 as well as in 2035.~~

~~The 2015 UWMP also includes projected supply and demand totals for a single dry year and multiple dry years through 2040 (potable and recycled water). The UWMP does not show additional available supply in single or multiple dry years above existing entitlements. Therefore,~~

~~due to the uncertainty regarding water supply over the planning horizon of the project, impacts associated with water supply are considered potentially significant.~~

~~The CWS UWMP would be subject to revision in 2020. As part of its next round of water supply planning, the CWS would incorporate growth projections for various jurisdictions within its service area, including the CSUDH campus. Any needs for additional supplies based on adoption of the proposed project would be addressed and accounted for in the next and subsequent updates to the UWMP. Also, CSUDH will continue to build on sustainable programs already in place and future development projects on campus would be required to assure adequate measures are proposed to meet all water conservation objectives incorporated into the Guidelines. With implementation of Guidelines, campus water demand is anticipated to decrease with the implementation of the Master Plan.~~

~~Currently, adequate water supply exists to serve buildout of the Master Plan in normal years through 2035. However, due to future uncertainties regarding water supply in dry years through 2035, the proposed project would result in a significant impact.~~

Conclusion

In addition to identification of a project's unavoidably significant impacts, CEQA Guidelines Section 15126.2(b) requires an explanation of why a project is being proposed, notwithstanding such impacts. Here, the benefits of the proposed project would outweigh the few significant and unavoidable environmental impacts remaining after implementation of numerous project design features and mitigation measures. More specifically, the proposed project is designed to advance the educational mission of CSUDH. The proposed project would modernize and improve various aspects of the existing CSUDH campus, which is located in an infill setting, in order to establish a framework for the University's campus that can accommodate student enrollment increases over a planning period that extends to 2035. The proposed project relatedly would facilitate the ability of CSUDH to meet the demand for higher education opportunities in the subject portion of the Los Angeles region, and would result in environmentally sustainable upgrades to the existing campus through redevelopment and new development.

Significant Irreversible Environmental Changes

CEQA Guidelines Section 15126.2(c) requires an EIR to evaluate significant irreversible environmental changes that would be caused by implementation of a project:

> Uses of nonrenewable resources during the initial and continued phases of the project may be irreversible since a large commitment of such resources makes removal or nonuse thereafter unlikely. Primary impacts and, particularly, secondary impacts (such as highway improvement which provides access to a previously inaccessible area) generally commit future generations to similar uses. Also, irreversible damage can result from environmental accidents associated with the project. Irretrievable commitments of resources should be evaluated to assure that such current consumption is justified.

Here, the proposed project would necessarily consume non-renewable resources, as well as resources that are effectively non-renewable due to their long regeneration time, during both construction and operation. More specifically, the proposed project would require a commitment of non-renewable and renewable resources that would include: (1) building materials; (2) water; and (3) energy resources.

During construction, the proposed project would consume non-renewable resources including the following building materials: certain types of lumber and other forest products; aggregate materials used in concrete and asphalt, such as sand, gravel and stone; metals, such as steel, copper, and lead; and petrochemical construction materials, such as plastics. As stated in **Section 3.10**, Utilities and Service Systems, of this EIR, during construction, the proposed project would divert at least 58 percent (2016 percentage of waste diverted) of construction and demolition debris from landfills. Thus, the net use of non-renewable building materials, such as lumber, aggregate materials, and plastics, would be reduced.

Water, which is a limited, slowly renewable resource, also would be consumed during project construction. Project water use during construction also is addressed in **Section 3.10** of this EIR. As concluded therein, water consumption during project construction would result in a less-than-significant impact on water supplies. Furthermore, the project's use of construction vehicles and equipment would require the consumption of non-renewable fossil fuels such as natural gas, oil, gasoline, and diesel fuel. As indicated in **Section 3.10**, the consumption of non-renewable fossil fuels during construction would occur on a temporary basis and would not be significant.

During operation, the resources committed to the proposed project would include domestic water supplies for drinking and washing, and fossil fuels for lighting, heating, cooling and transportation. Water consumption is analyzed in **Section 3.10**, Utilities and Service Systems, of the EIR. While project operation would result in the irreversible consumption of water, the proposed project would not result in a significant impact with respect to water supply or infrastructure.

During ongoing operations, non-renewable fossil fuels would represent the primary energy source and, thus, the existing finite supplies of these resources would be incrementally reduced. The consumption of non-renewable fossil fuels for energy use also is analyzed in **Section 3.10**; as provided therein, the proposed project's estimated demand for electricity and natural gas would be within the anticipated service capabilities of the utility providers. Additionally, gasoline and diesel fuel consumption would not result in the inefficient use of transportation energy resources, create transportation energy system capacity problems, or result in a significant impact associated with the construction of new or expanded transportation energy facilities. The proposed project also would comply with regulatory standards and employ building design standards to reduce negative environmental impacts of development and encourage sustainable building practices.

Project operations also would involve the limited use of potentially hazardous materials typical of those used in a campus setting, such as cleaning agents, paints, pesticides, and other materials used for landscaping. However, all hazardous materials used within the project site would be acquired, handled, used, stored, transported, and disposed of in accordance with manufacturers' instructions and in compliance with all applicable federal, state, regional, and local requirements, and impacts would be less than significant. Furthermore, regulatory compliance would ensure that the proposed

project would not result in the release of any known toxins or contaminants on the campus or adjacent to the campus during construction.

Based on the above, construction and operation of the proposed project would require the irretrievable commitment of slowly renewable and non-renewable resources, which would limit the availability of these resources for future generations or for other uses. However, the consumption of such resources would not be considered substantial and would be consistent with regional and local growth forecasts and development goals for the project area. The loss of such resources would not be highly accelerated when compared to other development within the surrounding area, and such resources would not be used in a wasteful manner. Therefore, although irreversible environmental changes would result from the proposed project, such changes are concluded to be less than significant.

Growth-Inducing Impacts

CEQA Guidelines Section 15126.2(d) requires an EIR to consider the growth-inducing impacts of a project. Growth-inducing impacts are characteristics of a project that could, either directly or indirectly, foster economic or population growth or the construction of additional housing or development in the surrounding environment. According to the CEQA Guidelines, such projects include those that would remove obstacles to population growth (e.g., a major expansion of a waste water treatment plant). In addition, as set forth in the CEQA Guidelines, increases in the population may tax existing community service facilities, requiring construction of new facilities that could cause significant environmental effects. The CEQA Guidelines also require a discussion of the characteristics of projects which may encourage and facilitate other activities that could significantly affect the environment, either individually or cumulatively. The CEQA Guidelines state that it must not be assumed that growth in an area is necessarily beneficial, detrimental, or of little significance to the environment.

It is anticipated that the proposed project would not induce growth in the project area. As background, the proposed project is designed to accommodate the existing and projected demand by students, faculty, and staff for educational facilities, campus business park ~~and office~~ space, as well as housing. The anticipated campus growth (from 11,000 full-time equivalent students (FTES) to 20,000 FTES) has been planned for since 1967; in other words, the 2018 Campus Master Plan is not proposing to increase the campus enrollment cap. Instead, it is proposing to improve upon the facilities-based plan designed to meet and accommodate that projected demand. As such, it is unlikely that the proposed project would induce development beyond that anticipated in local land use plans. Consequently, the proposed project is not expected to result in significant growth-inducing impacts on the environment.

Potential Secondary Effects of Recommended Mitigation

CEQA Guidelines Section 15126.4(a)(1)(D) requires that, "[i]f a mitigation measure 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 shall be discussed but in less detail than the significant effects of the project as proposed." Accordingly, the potential for impacts that could result from implementation of each mitigation measure recommended in this EIR was reviewed. The

following provides a discussion of the potential secondary impacts that could occur as a result of implementation of the project mitigation measures, listed by environmental issue area.

Air Quality

Mitigation measure AQ-1 requires the use of 2010 or newer diesel haul trucks to transport on-site soil, to the extent feasible. The use of haul trucks was accounted for in pertinent sections (e.g., noise) of the EIR. Implementation of this measure would be beneficial through its reduction of VOC (and potentially GHG) emissions via the use of more efficient types of vehicles and, therefore, would not result in adverse secondary impacts.

Mitigation measure AQ-2 requires that all off-road, diesel-powered construction equipment greater than 50 horsepower meet Tier 4 emission standards, and those that are not Tier 4 shall be outfitted with Best Available Control Technology (BACT) devices certified by the California Air Resources Board (CARB). The use of off-road construction equipment was accounted for in pertinent sections (e.g., noise) of the EIR. Implementation of this measure would be beneficial to air quality (and potentially GHG) through its reduction of construction-related emissions and would not result in adverse secondary impacts.

Mitigation measure AQ-3 requires that CSUDH notify SCAQMD and SCAG of any approved campus development to ensure that campus growth-related emissions are accounted for in future regional emissions inventories. This measure would be beneficial to long-term air quality planning and would not result in any adverse secondary impacts as the measure imposes an administrative, notification requirement.

Mitigation measure AQ-4 requires that CSUDH develop Green Product educational materials that would be made available online to all campus faculty, staff, students, and tenants of the campus. This measure would have no adverse secondary impacts to the environment as it requires the administration of an educational program to reduce emissions from consumer products.

Mitigation measure AQ-5 requires the installation of Energy Star appliances to increase efficiency and reduce emissions. Implementation of this measure would be beneficial to air quality (and GHG emissions) through its intent to reduce operational emissions associated with building energy consumption and would not result in adverse secondary impacts.

Biological Resources

Mitigation measure BIO-1 requires that the development footprints of new facilities and improvements containing jurisdictional drainages be designed to avoid direct impacts. This mitigation measure is meant to avoid impacts and would not result in physical, adverse secondary impacts.

Mitigation measure BIO-2 requires that the University obtain all necessary permits required by regulatory agencies. This is standard procedure and requires compliance with applicable laws, and will not result in adverse secondary impacts.

Mitigation measure BIO-3 requires mitigation in-kind of regulated waters at a 1:1 ratio. Specific compensatory mitigation determined by each regulatory agency also may include providing

adequate funding to a third-party organization, conservation bank, or in-lieu fee program for the in-kind creation or restoration. If mitigation is implemented offsite, mitigation lands shall be located within the Los Angeles River Watershed or vicinity. This measure would be beneficial to the biological communities on the project site or within the Los Angeles River Watershed and would not result in adverse secondary impacts.

Mitigation measure BIO-4A and BIO-4B requires consultation with the U.S. Fish and Wildlife Service (USFWS) on additional protocol-level vernal pool branchiopod surveys. The Clean Water Act (CWA) Section 404 permit application process with the U.S. Army Corps of Engineers also will require consultation with USFWS with regard to potential impacts to any identified federally-listed vernal pool fairy shrimp species. This is a procedural measure, which would not result in adverse secondary impacts.

Mitigation measure BIO-5 requires pre-construction owl surveys. This is a procedural measure, which would not result in adverse secondary impacts.

Mitigation measure BIO-6 requires passive relocation of any species of burrowing owl that may be present outside the breeding season or creation of a buffer that limits construction from within 300 feet of the active burrows. This measure is designed to protect burrowing owls both during and outside of the breeding season, and would not result in adverse secondary impacts.

Mitigation measure BIO-7 requires nesting bird/raptor surveys by a qualified biologist. This is a procedural measure, which would not result in adverse secondary impacts.

Cultural and Paleontological Resources

Mitigation measures CUL-1 through CUL-6 pertain to archaeological resources. They detail the procedures to be followed in the event previously unknown cultural resources are uncovered during construction, construction monitoring, and site investigations. Implementation of these mitigation measures would be beneficial in reducing impacts to archaeological resources and would ensure compliance with applicable regulations. No adverse secondary impacts would occur as a result of implementation of these mitigation measures.

Mitigation measures CUL-7 through CUL-11 outlines procedures to be followed in the event that previously unknown paleontological resources are uncovered during construction, construction monitoring, and specimen recovery. No adverse secondary impacts would occur as a result of implementation of these mitigation measures.

Mitigation measure CUL-12 outlines procedures in the event that human remains are discovered. This mitigation measure is a procedural action and would not result in physical secondary impacts. Therefore, no potential adverse secondary impacts would occur.

Mitigation measure CUL-13 requires the retention of a qualified Native American monitor. This mitigation measure is a procedural action and would not result in physical secondary impacts. Therefore, no potential adverse secondary impacts would occur.

Greenhouse Gas Emissions

Mitigation measure GHG-1 requires that all project-related development comply with applicable standards set by the Sustainability Guidelines chapter of the Guidelines for the 2018 Campus Master Plan. Implementation of this mitigation measure would be beneficial in reducing impacts relative to GHG emissions, as well as air quality and energy. No adverse secondary impacts would occur as a result of implementation of this mitigation measure.

Noise

Mitigation measure NOI-1 requires that, prior to construction, CSUDH shall approve a construction noise mitigation plan that shall be implemented for construction activities and include a combination of such measures as installation of temporary acoustic barriers, the equipment of construction equipment with all feasible noise reduction devices, and the timing of construction activities to be coordinated to minimize the impacts of noisier construction activities. Implementation of these mitigation measures would be beneficial in reducing noise impacts during construction. No adverse secondary impacts would occur as a result of implementation of these mitigation measures.

Effects Not Found To Be Significant

CEQA Guidelines Section 15128 requires an EIR to briefly indicate the reasons that various possible significant effects of a project were determined not to be significant and, therefore, not discussed in detail in the EIR.

Agriculture and Forest Resources

The campus does not contain farmland or forest land. No property under Williamson Act contract or land designated as forest land exists on the campus. Future development pursuant to the 2018 Campus Master Plan will not involve any changes to the existing environment that could result in conversion of farmland or forest land to other uses.

Geology and Soils

There are no known faults within the CSUDH campus. Further, while the campus is located in the seismically active Southern California region (and in proximity to the Newport-Inglewood fault), all design and construction of new facilities and improvements will be in strict compliance with applicable seismic safety standards and requirements. With mandatory compliance with these requirements and the use of appropriate engineering and design techniques, all new campus facilities and improvements will provide the required level of seismic safety. The campus is located on relatively flat terrain and is not at risk for landslides.

Hazards and Hazardous Materials

For most of the new proposed facilities on the campus, use and storage of hazardous materials will be limited to small amounts of everyday household cleaners and common chemicals used for landscaping and maintenance. Materials used for laboratory academic research and instructions

will be handled and disposed of in accordance with established University safety procedures, ensuring safe and lawful handling, movement, storage, and disposal.

As disclosed in the Initial Study for the proposed project (Appendix A), the campus is not included on the Department of Toxic Substances Control Hazardous Waste and Substance List (Cortese List) or any other list of hazardous materials sites. As discussed in the 2009 Final Environmental Impact Report (2009 Final EIR) for the 2010 Master Plan update, a Phase I Environmental Site Assessment was conducted in 2000 for the entire CSUDH campus and adjacent off-campus properties within a 1-mile radius. The results of that report, along with subsequent on-site observations were documented in the 2009 Final EIR, and are summarized below. No substantive changes to on-site campus land uses have occurred since 2009.

The campus has several transformers; however, no polychlorinated biphenyls (PCBs) are known to be present. Also, there were no reported pesticide contamination problems associated with the soil or groundwater in the vicinity of the proposed project. No USTs are located within the campus. However, former USTs were removed in 1999 from the maintenance area of the campus. Moderate levels of soil contamination were noted at the time of removal. Overall, nominal contamination was found during removal, and the contaminated soil was excavated and appropriately disposed.

Since most of the existing academic-core campus buildings were constructed prior to 1980, the potential exists for encountering asbestos-containing materials (ACMs) and lead-based paint during renovation or demolition of existing buildings. However, any demolition occurring on campus is required to conform to the California Health and Safety Code and SCAQMD Rule 1403, which regulate ACMs and lead-based paint.

Regulatory compliance also would ensure that construction of the proposed project would not result in the release of any known toxins or contaminants on the campus or adjacent to the campus. In the unlikely event that pesticide-related contamination is discovered during construction, it would be remediated prior to project operation in accordance with all applicable regulatory standards. While CSUDH is not known to produce radiological hazards, any biological or chemical materials handled by CSUDH in fulfillment of its educational mission are subject to federal, state, and local regulations and will continue to be handled accordingly.

Hydrology and Water Quality

Compliance with all applicable local, state, and federal regulations regarding water quality and storm water ensures that impacts to drainage systems and water quality would be avoided during construction. The proposed project also includes necessary drainage improvements, such as a storm water retention basin and bioswales. The proposed project would not result in substantially increased groundwater pumping since there are no groundwater wells on campus and groundwater is not a direct source of water for the campus. The National Flood Insurance Rate Maps do not identify 100-year flood hazard areas within the campus. And, because the campus is located inland, it is not subject to tsunamis. The campus also is not subject to seiche, as it is not located near a large body of water.

Land Use and Planning

The 2018 Campus Master Plan provides for new facilities and improvements within the campus and will not physically divide an established community. No other land use plans apply to the campus, and no adverse impacts will result.

Mineral Resources

No mineral resources are known or anticipated to exist on the CSUDH campus.

5.0 Alternatives to the Project

Introduction

The California Environmental Quality Act (CEQA) requires an Environmental Impact Report (EIR) to describe a reasonable range of alternatives to a project or to the location of a project that feasibly attains most of the project's basic objectives but avoids or substantially lessens any of the project's significant environmental impacts.[1] CEQA also requires an EIR to evaluate the comparative merits of the alternatives. This section of the EIR describes potentially feasible alternatives to the 2018 Campus Master Plan (proposed project) and compares the potential impacts of each alternative to the project's identified environmental impacts.

The project's main objective is to provide for the long-term development of the campus up to the 2035 planning horizon in a manner that supports the academic, research, and service needs of California State University, Dominguez Hills' (CSUDH or University) students, faculty, and staff; maintains and enhances the University's capacity as a regional center for intellectual development and cultural activity for students, faculty, and staff; and enhances the student experience and attracts and retains high quality faculty and staff. Thus, overall, the project purpose/vision is to become a vital physical campus that supports all activities needed for a top-performing Model Urban University accommodating 20,000 full-time equivalent students (FTES) in a manner cohesive with the surrounding community and environment.

Specific project objectives include, but are not limited to, the following:

- Reinforce the University's focus on teaching and learning by providing the appropriate instructional, research, and administrative facilities that support the depth of knowledge the University seeks to instill;
- Serve as a regional center and asset for intellectual development, cultural activity, and life-long learning for CSUDH and the surrounding community;
- Provide on-campus housing opportunities for faculty and staff to promote faculty and staff recruitment, and retain and enhance faculty and staff connectivity with the campus; and provide housing opportunities to graduate students and those in the greater community interested in campus life connectivity; and
- Provide additional on-campus learning, research, and internship opportunities for students, faculty, and staff through on-campus public-private partnerships.

[1] CEQA Guidelines section 15126.6(a).

The CEQA Guidelines emphasize that the selection of project alternatives should be based primarily on the ability of an alternative to reduce significant impacts associated with the proposed project, "even if these alternatives would impede to some degree the attainment of the project objectives, or would be more costly."[2] An EIR need not consider every conceivable alternative to a project, but rather the range of alternatives should be guided by a "rule of reason," such that only those alternatives necessary to permit a reasoned choice are analyzed.[3]

In selecting alternatives for analysis, the alternatives considered should be potentially feasible. CEQA Guidelines Section 15126.6(f)(1) states:

> 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..., and whether the proponent can reasonably acquire, control or otherwise have access to the alternative site or the site is already owned, controlled, or could reasonably be acquired by the proponent....

The CEQA Guidelines require the EIR to analyze a "No Project" Alternative and consider an alternative location(s) for the project, if feasible. Of the alternatives analyzed in an EIR, an environmentally superior alternative is to be designated. If the environmentally superior alternative is the No Project Alternative, then the EIR shall identify an environmentally superior alternative among the other alternatives.[4]

As required under CEQA, the intent of this alternatives analysis is to consider options that could reduce the proposed project's significant impacts. As presented in prior sections of this EIR, the 2018 Campus Master Plan would result in significant and unavoidable impacts with respect to: air quality; greenhouse gas (GHG) emissions; noise; traffic and circulation and utilities (water supply). Please see **Chapter 4.0**, Other Environmental Considerations, for a succinct summary of the significant and unavoidable impact determinations in these environmental resource areas.

Based on these significant environmental impacts and the objectives established for the proposed project (see **Chapter 2.0**, Project Description, of this EIR for a complete list of the project objectives), the following alternatives to the proposed project have been selected for analysis:

- **No Project Alternative:** Campus development would occur in conformance with the adopted 2009 Campus Master Plan.

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2 CEQA Guidelines section 15126.6(b).

3 CEQA Guidelines section 15126.6(f).

4 CEQA Guidelines section 15126.6(e)(2).

- **Reduced Project Alternative:** The same components of the proposed project would be built, but with a 25 percent reduction in ~~market rate~~ campus apartment housing, retail and ~~business park~~campus business park development within the University Village portion of the campus.
- **Increased Student Housing Alternative:** The same components of the proposed project would be built, but with 180 fewer ~~market rate~~ campus apartment housing units, and an additional 1,040 student housing beds.
- **Increased Student Housing with ~~Market Rate~~ Campus Apartment Housing Relocation Alternative:** The same components of the proposed project would be built, but with 180 fewer ~~market rate~~ campus apartment housing units, an additional 1,040 beds for student housing, and the relocation of 100 campus apartment ~~market rates~~ units to a surface parking lot on the campus. The relocation of the ~~market rate~~ campus apartment housing units is anticipated to attract more faculty and staff to live on-campus.

A tabular comparison of the attributes of the proposed project and alternatives studied in this EIR is provided in **Table 5.0-1**, Comparison of Attributes of Proposed Project and Alternatives, below.

Table 5.0-1
Comparison of Attributes of Proposed Project and Alternatives

	Proposed Project	Alternative			
		No Project Alternative	Reduced Project Alternative	Increased Student Housing Alternative	Increased Student Housing with ~~Market Rate~~ Campus Apartment Housing Relocation Alternative
Campus Facilities (square feet)	1,208,975	357,900	1,208,975	1,208,975	1,208,975
Student Housing (number of student beds)	988	600	741	2,028	2,028
Off-Campus Students (number of students)	9,823	6,432	10,070	8,783	8,783
Faculty/Staff Housing (number of dwelling units)	0	350	0	0	100
Faculty/Staff (number of persons)	840	142	840	840	740
Child/Infant Care Center (number of children)	92	0	92	92	92

Table 5.0-1
Comparison of Attributes of Proposed Project and Alternatives

	Proposed Project	Alternative			
		No Project Alternative	Reduced Project Alternative	Increased Student Housing Alternative	Increased Student Housing with ~~Market Rate~~ Campus Apartment Housing Relocation Alternative
~~Market Rate~~Campus Apartment Housing (number of dwelling units)	2,149	0	1,612	1,969	1,969
Retail (square feet)	96,085	0	72,064	96,085	96,085
Campus Business Park (square feet)	720,918	0	540,689	720,918	720,918
StubHub Center (additional seats)	3,000	0	3,000	3,000	3,000

Alternatives Considered But Eliminated From Further Consideration

In accordance with CEQA Guidelines Section 15126.6(c), an EIR should identify alternatives considered for analysis, but rejected as infeasible and briefly explain the reasons for their rejection. According to the CEQA Guidelines, the following factors may be used to eliminate alternatives from detailed consideration: the alternative's failure to meet most of the basic project objectives, the alternative's infeasibility, or the alternative's inability to avoid significant environmental impacts of the project. In the context of these factors, alternatives that were considered and rejected as infeasible include:

- **Maximum Student Housing Alternative:** The number of student beds would triple to approximately 4,800 beds under this alternative. All other components of the proposed project would remain the same. This alternative was rejected because it does not achieve the CEQA objective of reducing impacts. More specifically, due to the increase in student housing by 3,812 beds, the number of vehicle trips generated and associated air quality and greenhouse gas emissions would increase above what are projected for the proposed project. No impacts would be reduced as compared to the proposed project.
- **No Campus Business Park Alternative:** Under this alternative, the campus business park component of University Village would not be constructed; all other elements of University Village would remain the same as in the proposed project.

By eliminating the campus business park, the size of University Village would be reduced by approximately 721,000 square feet. This alternative was rejected because it precludes the campus from meeting one of its primary project objectives: "Provide additional on-campus learning, research, and internship opportunities for students, faculty, and staff through on-campus public-private partnerships."

- **No University Village Alternative:** Development of University Village would be eliminated under this alternative. All other components of the proposed project would remain identical. This alternative was rejected because it precludes the campus from meeting one of its primary project objectives: "Provide on-campus housing opportunities for faculty and staff to promote faculty and staff recruitment, and retain and enhance faculty and staff connectivity with the campus; and provide housing opportunities to graduate students and those in the greater community interested in campus life connectivity." This alternative was also rejected because it precludes the campus from meeting one of its primary project objectives: "Provide additional on-campus learning, research, and internship opportunities for students, faculty, and staff through on-campus public-private partnerships."
- **Alternative Site:** The *Citizens of Goleta Valley v. Board of Supervisors* decision (52 Cal.3d 553 (1990)) affirms that an EIR must consider a reasonable range of alternatives to the location of a project, which: (1) offer substantial environmental advantages over the project site; and (2) may be feasibly accomplished in a successful manner, considering economic, environmental, social and technological factors. The decision also notes that infeasible alternative locations need not be extensively considered. In assessing the feasibility of an alternative location, an EIR may properly consider criteria such as whether the site: (1) has land use designations inconsistent with the proposed development; (2) is not owned by the project proponent; and/or (3) is outside the lead agency's planning jurisdiction. In short, the nature and scope of alternative locations to be analyzed in an EIR is determined by the facts of each case, guided by the "rule of reason" and with reference to CEQA's statutory purpose. The proposed project is an update to the campus master plan for the existing CSUDH campus; because the University is an existing use and because the campus is located on an existing site, no alternative site is viable as a CEQA alternative.

Analysis

Per CEQA Guidelines Section 15126.6(d), each alternative must be evaluated in sufficient detail to determine whether the overall environmental impacts would be less than, similar to, or greater than the corresponding impacts of the proposed project. A summary of the conclusions reached in this analysis is provided by **Table 5.0-2**, Alternatives Matrix – Environmental Impact Comparison, below.

Table 5.0-2
Alternatives Matrix – Environmental Impact Comparison

	Alternative			
	No Project Alternative	**Reduced Project Alternative**	**Increased Student Housing Alternative**	**Increased Student Housing with ~~Market Rate~~ Campus Apartment Housing Relocation Alternative**
Aesthetics	=	↓	=	↑
Air Quality	↓	↓	↓	↓
Biological Resources	=	↓	=	↑
Cultural Resources	=	=	=	↑
Greenhouse Gas Emissions	↓	↓	↓	↓
Noise	↓	↓	↓	↓
Population and Housing	=	↑	=	=
Public Services	=	=	=	=
Traffic and Circulation	↓	↓	↓	↓
Utilities and Service Systems	=	=	=↑	=↑

Notes:
↓ = Less impacts than the proposed project
↑ = Greater impacts than the proposed project
= Similar impacts to the proposed project

Furthermore, each alternative must be evaluated to determine whether the project objectives, as identified in **Chapter 2.0**, Project Description, of this EIR would be substantially attained by the alternative.[5] The evaluation of each alternative for consistency with project objectives is provided below.

No Project Alternative

Description of the Project Alternative

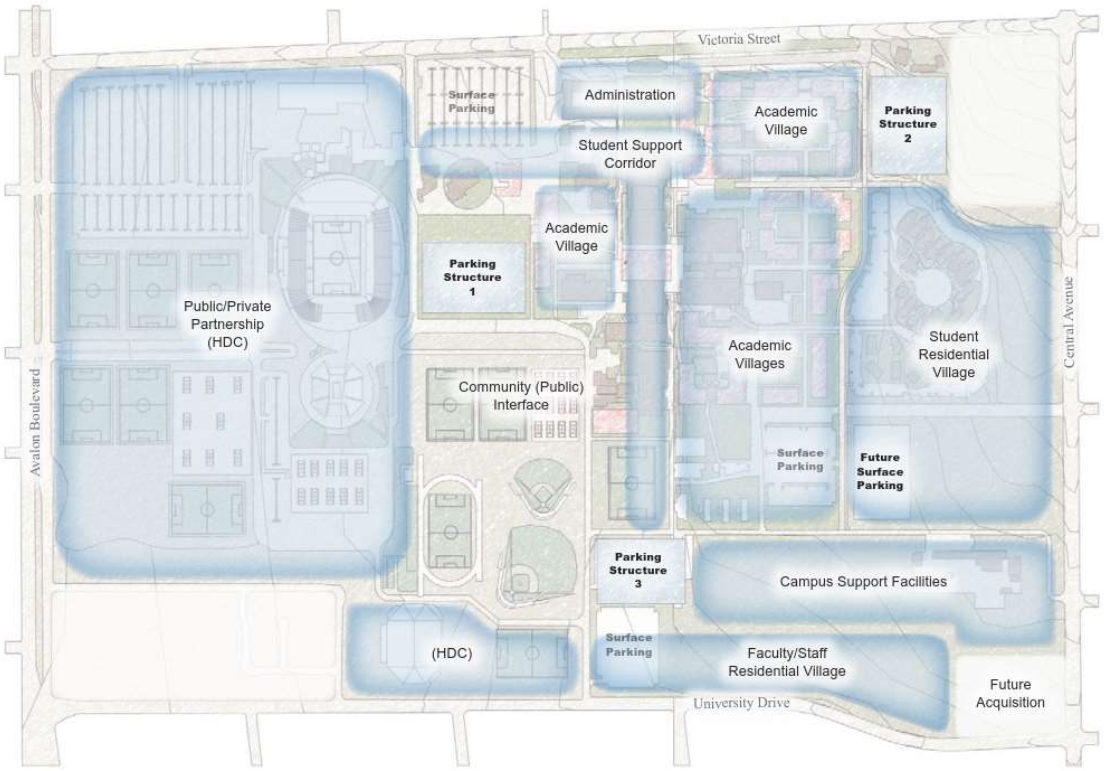
The following discussion of the No Project Alternative is based on CEQA Guidelines Section 15126.6(e)(3)(A), which states:

[5] CEQA Guidelines section 15126.6(c).

> When the project is the revision of an existing land use or regulatory plan, policy or ongoing operation, an alternative will be the continuation of the existing plan, policy or operation into the future. Typically, this is a situation where other projects initiated under the existing plan will continue while the new plan is developed. Thus, the projected impacts of the proposed plan or alternative plans would be compared to the impacts that would occur under the existing plan.

Consistent with CEQA Guidelines Section 15126.6(e)(3)(A), the No Project Alternative represents the continued implementation of the adopted Campus Master Plan (2009 Master Plan). The 2009 Master Plan land use plan is shown on **Figure 5.0-1**.

Figure 5.0-1
No Project Alternative: Adopted Campus Master Plan (2009) Land Use Plan



Under the No Project Alternative, the proposed 2018 Campus Master Plan would not be adopted; rather, development of the campus would proceed in accordance with the 2009 Master Plan. Campus improvements pursuant to the 2009 Master Plan would still occur within campus boundaries. These include both the near-term and long-term projects.

The near-term projects identified in the 2009 Master Plan include the construction of a science and health professions laboratory building, housing for students and faculty, and cogeneration plant; and renovation or addition of La Corte Hall, extended education complex, new campus entrance off Central Avenue, Cain Library, social and behavioral

sciences building, natural science and mathematics buildings, and student recreation center/gymnasium. Most of these near-term projects were either completed or under construction at the time that this EIR was being prepared.

The long-term projects identified in the 2009 Master Plan are those defined conceptually to accommodate student growth, with enrollment level up to 20,000 FTES. These long-term projects include academic/administration facilities; campus life and student facilities; access, circulation, and parking projects; campus infrastructure; and athletic fields.

As compared to the proposed project, the No Project Alternative would have 388 less beds for student housing (for a total of 600 student beds) and 350 dwelling units would be built for faculty housing.

Environmental Impacts

Aesthetics

The No Project Alternative would result in similar aesthetics impacts when compared to the proposed project. More specifically, like the proposed project, the 2009 Master Plan would make improvements to the existing CSUDH campus. During construction, short-term visual changes would occur due to the presence and storage of construction material and equipment in staging areas. However, because the majority of the campus is already developed, buildout of the 2009 Master Plan would generally be considered infill development and not substantially alter any existing views or the character of the campus.

As compared to the proposed project, the elimination of the ~~market rate~~campus apartment housing, campus business park, and retail under the No Project Alternative may decrease the potential obstruction of the key views to and from the campus. The less intense level of on-campus development also may reduce visual impacts from obstruction and light and glare. In contrast to the proposed project, however, the No Project Alternative would develop dedicated faculty housing. As such, overall aesthetics impacts would be similar.

Air Quality

It is anticipated that air quality impacts associated with the No Project Alternative would be less than those for the proposed project due to the lesser quantity of facilities identified for development. More specifically, with a reduction in the square footage of development under the No Project Alternative, it is likely that construction-related emissions would decrease as compared to the proposed project.

With fewer student housing beds under the No Project Alternative, it is anticipated that the number of student-based commuter trips to the campus would increase under this alternative as the campus grows to its 20,000 FTES enrollment level. However, despite higher efficiency levels in the built environment, the proposed project's overall increase in development intensity likely would result in a net increase in operational emissions when compared to the No Project Alternative. For example, the proposed project's construction of the ~~business park~~campus business park, retail, and ~~market rate~~ campus apartment housing developments would generate more trips and vehicle miles traveled (VMT) as

compared to the No Project Alternative, and therefore increase operational emissions to a level greater than that of the No Project Alternative.

In sum, buildout under the No Project Alternative would result in fewer air quality impacts than the proposed project.

Biological Resources

Buildout under the No Project Alternative is anticipated to similarly impact the campus's biological resources when compared to the proposed project because the alternative would result in development in the same or similar campus areas impacted by the project. Although the intensity of development may be less under this alternative, the footprints of development would cover similar areas.

Cultural Resources

Compared to the proposed project, similar areas on the campus would be impacted by development under the No Project Alternative. It is possible that development of faculty housing under this alternative would increase the potential for impacts to unknown subsurface cultural resources, since it would require excavation in an area that the proposed project would use for surface parking. Despite this, the proposed project's higher intensity of development overall, would require more excavation than the No Project Alternative and, therefore, would render the faculty housing excavation as resulting in similar potential impacts to cultural resources. Due to the absence of known cultural resources, and the protection of the one, on-campus historical resource, potential impacts would be similar under this alternative and the proposed project.

Greenhouse Gas Emissions

Like the analysis provided for air quality above, it is anticipated that GHG impacts associated with the No Project Alternative would be less than those for the proposed project due to the lesser quantity of facilities identified for development. More specifically, with a reduction in the square footage of development under the No Project Alternative, it is likely that construction-related emissions would decrease as compared to the proposed project.

With fewer student housing beds under the No Project Alternative, it is anticipated that the number of commuter trips to the campus would increase under this alternative as the campus grows to its 20,000 FTES enrollment level. However, despite higher efficiency levels in the built environment, the proposed project's overall increase in development intensity likely would result in a net increase in operational emissions when compared to the No Project Alternative. For example, the proposed project's construction of the ~~business park~~campus business park, retail, and ~~market rate~~ campus apartmenthousing developments would generate more trips and VMT as compared to the No Project Alternative, and therefore increase operational emissions to a level greater than that of the No Project Alternative.

In sum, buildout under the No Project Alternative would result in reduced GHG impacts than the proposed project.

Noise

Considering the No Project Alternative would result in construction activities in locations similar to that of the proposed project's activities, it is anticipated that the alternative would result in similar construction-related noise impacts when compared to the proposed project.

As for operational noise impacts, the No Project Alternative would result in a lesser amount of operational noise than the proposed project due to lesser overall trip generation.

Population and Housing

Neither the proposed project nor No Project Alternative would induce substantial population growth in the area or displace substantial numbers of existing housing or people. As such, population and housing impacts would be similar when comparing the proposed project and No Project Alternative.

Public Services

Like the proposed project, the No Project Alternative would not result in the need to construct new facilities to accommodate the estimated demand for fire, police, and emergency medical services. Further, neither the proposed project nor the No Project Alternative would add population that would exceed or add to the capacity of existing schools or libraries in the area. Finally, both the proposed project and No Project Alternative include on-campus expansions of parks and recreational fields; therefore, no impacts would occur that would increase the use of existing neighborhood and regional parks and recreational facilities that would result in physical deterioration of those resources or in adverse environmental impacts.

In summary, both the proposed project and the No Project Alternative would result in similar impacts to public services since both do not result in the need to construct additional or new public service facilities and do not result in the physical deterioration of any of the public service infrastructure.

Traffic and Circulation

Under the No Project Alternative, increased ambient traffic resulting from other development projects in the City and region would increase traffic on local streets and regional highways. Traffic would continue to increase as projected in the 2009 Master Plan due to continuing campus development. Since the amount of on-campus housing that would be constructed under this alternative would be less than that of the proposed project, the number of commute-related trips generated from the campus would be greater than the proposed project. However, compared to the proposed project, the No Project Alternative would not construct the ~~business park~~campus business park, retail spaces, and campus apartment ~~market-rate~~ housing developments. The net trips and VMT generated by the No Project Alternative would be less than that of the proposed project. Therefore, buildout under the No Project Alternative would result in fewer traffic impacts at intersections and freeway segments.

Utilities and Service Systems

Utilities and service systems for the campus were analyzed and determined to be adequate in handling projected demand for the proposed project~~, with the exception of a potentially significant impact for water supply~~. Since the No Project Alternative also forecasts a horizon planning year 20,000 FTES, and plans a lower intensity of development to be constructed and a lower on-campus population as compared to the proposed project, the conclusions from the analysis of the proposed project's impacts on utilities and service systems can also be applicable to the No Project Alternative~~, except that the potentially significant impact associated with water supply will be lessened, due to the elimination of the University Village and reduced student housing~~. Therefore, ~~with the exception of the lessened impacts associated with water supply,~~ the impacts on the utilities and service systems would be similar for both the proposed project and No Project Alternative.

Conclusion

As shown in **Table 5.0-2**, the No Project Alternative would result is similar impacts as compared to the proposed project for aesthetics, biological resources, cultural resources, population and housing, ~~and~~ public services, and utilities.

Compared to the proposed project, the No Project Alternative would result in fewer significant impacts to resources such as air quality and greenhouse gas emissions from reduction in mobile and stationary operational emissions, ~~water supply due to the reduction in on-campus housing and the elimination of the University Village,~~ and traffic and noise due to reduction in traffic volumes on local roads.

While the No Project Alternative would provide a development framework for the campus for up to 20,000 FTES, it would not achieve the major objectives of the proposed project. More specifically, since the No Project Alternative has an overall lower intensity of development, this alternative would not help the campus in meeting its specified project objectives. The provision of appropriate facilities to support learning at the campus would be significantly decreased as compared to the proposed project, as would the opportunities for on-campus housing. The continuation of the 2009 Master Plan would not provide the opportunity to realize the proposed 2018 Campus Master Plan objectives for on-campus learning, research, and internship opportunities and to further support and benefit the CSU educational missions. This alternative would also not help the campus meet its objectives in making efficient use of developable land and create an appropriate balance between built areas and open space due to its less intense development plan.

Reduced Project Alternative

The Reduced Project Alternative would reduce the intensity of the student housing, ~~market rate~~ campus apartmentunits, retail, and ~~business park~~campus business park components by 25 percent, when compared to buildout parameters of the proposed project. Total enrollment for the campus would remain at 20,000 FTES for the horizon year, as that enrollment cap was pre-established for the campus and is not a component of the proposed

project. Development of all other facilities found in the proposed project would remain the same under this alternative (refer to **Table 5.0-1**).

Environmental Impacts

Aesthetics

The 25 percent reduction in development of the referenced land uses under the Reduced Project Alternative would result in similar impacts as the proposed project to aesthetic resources.

Similar to the proposed project, aesthetic character and quality would be maintained through use of the Guidelines for the 2018 Campus Master Plan during design of campus facilities. Additionally, ~~market rate~~ campus apartment housing, retail and ~~business park~~campus business park development would occur in the same areas as planned for under the proposed project. However, the 25 percent reduction in ~~market rate~~ campus apartment housing, retail and ~~business park~~campus business park development under the Reduced Project Alternative would result in a corresponding decrease in both the density/intensity of those uses, as well as the size of the development area. This decrease would reduce impacts from obstruction, light, and glare compared to the proposed project.

Air Quality

The 25 percent reduction in development size, specifically the student housing, ~~market rate~~ campus apartment housing, retail, and ~~office~~ campus business park would result in incrementally less emission of the criteria pollutants associated with long-term operation and short-term construction. However, with the reduction in on-campus housing, the projected emission reductions would be partially offset by the potentially higher number of commuting trips and the associated VMT. The analyses show that this alternative would result in reduction of all criteria pollutants when compared to the proposed project. Specifically, ROG would reduce by approximately 11 percent, NO_x by 13 percent, CO by three percent, and SO_2, PM_{10} and $PM_{2.5}$ by 14 percent. However, even with the overall reductions, five criteria pollutants, specifically ROG, NO_x, CO, PM_{10} and $PM_{2.5}$, would exceed the SCAQMD daily thresholds. The number and type of criteria pollutants exceeding the threshold would remain the same as the proposed project.

Biological Resources

With a reduction in the scale and density/intensity of the referenced land uses, the Reduced Project Alternative would decrease the extent of impacts to biological resources. For example, the reduction in ~~business park~~campus business park development would reduce impacts to the drainages present on the southeastern portion of the campus, and thus decrease impacts to jurisdictional waters. Similarly, a reduction in the scale and density of the ~~market rate~~ campus apartment housing would aid in maintaining mature trees and habitat resources that are present on the campus. Thus, the Reduced Project Alternative would result in fewer impacts to biological resources as compared to the proposed project.

Cultural Resources

No differences in impacts to cultural resources are anticipated due to the similar extent of planned development under the proposed project and the Reduced Alternative. A lower intensity and scale of development would not constitute a change in the location of excavations as compared to the proposed project, but may marginally decrease the potential for impacts to unknown subsurface cultural resources. Thus, no differences in impacts to cultural resources would result from the Reduced Project Alternative as compared to the proposed project, since similar areas would be excavated for the construction of these facilities.

Greenhouse Gas Emissions

Construction and operational GHG emissions are anticipated to be lower under the Reduced Project Alternative than under the proposed project, due to the reduction in the density and intensity of the planned developments. This alternative would construct less square-footage of facilities, resulting in fewer short-term construction GHG emissions. Similarly, due to the reduced intensity of the planned developments, long-term operational GHG emissions are anticipated to be lower than that of the proposed project. The analyses show that this alternative would result in a reduction of GHG emissions by approximately 15% when compared to the proposed project. Therefore, the GHG emissions impact of the Reduced Project Alternative would be lower than that of the proposed project.

Noise

A 25 percent reduction in ~~market rate~~ campus apartment housing, retail and ~~business park~~campus business park development under the Reduced Project Alternative would result in a decrease in vehicular trips. This decrease in vehicular trips compared to the proposed project would reduce the project-related significant vehicular noise impacts to sensitive off-site receptor sites and result in marginally less operational noise impacts.

Construction of the Reduced Project Alternative would proceed similar to the proposed project and would result in short-term increase in noise levels from both outdoor and indoor construction activities. It is anticipated that some demolition activities would occur within close proximity to single-family homes, educational facilities, and on-campus student housing, and result in a likelihood of potential significant temporary noise impacts. Noise levels would potentially be in excess of acceptable levels due to overlap in construction activities and construction occurring concurrently at multiple sites within the campus. Therefore, short-term construction noise impacts resulting from this alternative are significant, similar to the proposed project.

Population and Housing

Both the proposed project and the Reduced Project Alternative would replace the existing Pueblo Dominguez Housing with new housing; would increase overall housing on the CSUDH campus and would not result in the permanent displacement of any person or loss of housing.

The proposed project would provide more housing opportunities on campus to meet existing and projected housing demands associated with enrollment growth than would be provided under this Alternative. Because the Reduced Project Alternative would provide less on-campus housing than the proposed project, it could induce more growth-related impacts to the surrounding community when those FTES seek housing nearby the campus.

Public Services

Similar to the proposed project, the Reduced Project Alternative would not exceed service capacities of schools or libraries and would not require the development of new infrastructure or the expansion of an existing services. With a reduction in scale and density/intensity of specific land uses by 25 percent under this alternative, it can be concluded that the supply of parks and recreational facilities, additional planned improvements, and emergency services would be adequate in serving the increase in population numbers.

Traffic and Circulation

The Reduced Project Alternative would generate approximately 13% fewer vehicular trips than the proposed project, however, traffic impacts would likely remain significant at certain intersections.[6] The Reduced Project Alternative would result in incrementally fewer AM and PM peak hour trips than the proposed project. Therefore, impacts under the Reduced Alternative would be similar to, although incrementally less than, those of the proposed project.

Utilities and Service Systems

The impacts to utilities and service systems under this alternative would be similar to the proposed project, since the utility systems (wastewater, storm drain, solid waste, water supply) were determined under the proposed project to be sufficient in capacity and supply for the 20,000 FTES anticipated for the future planning year horizon. No off-site extension of wet or dry utility lines would be required under either this alternative or the project, and thereby, no additional impacts would result. ~~The impacts associated with water supply, which were determined to be potentially significant for the proposed project, would be reduced due to the reduced scope of development in the Reduced Project Alternative.~~

Although demand for utilities and service systems would decrease marginally as compared to the proposed project, impacts would be similar to impacts from the proposed project.

[6] Modeling was not performed for the Reduced Project Alternative due to its similarity to the proposed project's modelling, therefore allowing conclusions to be drawn from one set of data.

Conclusion

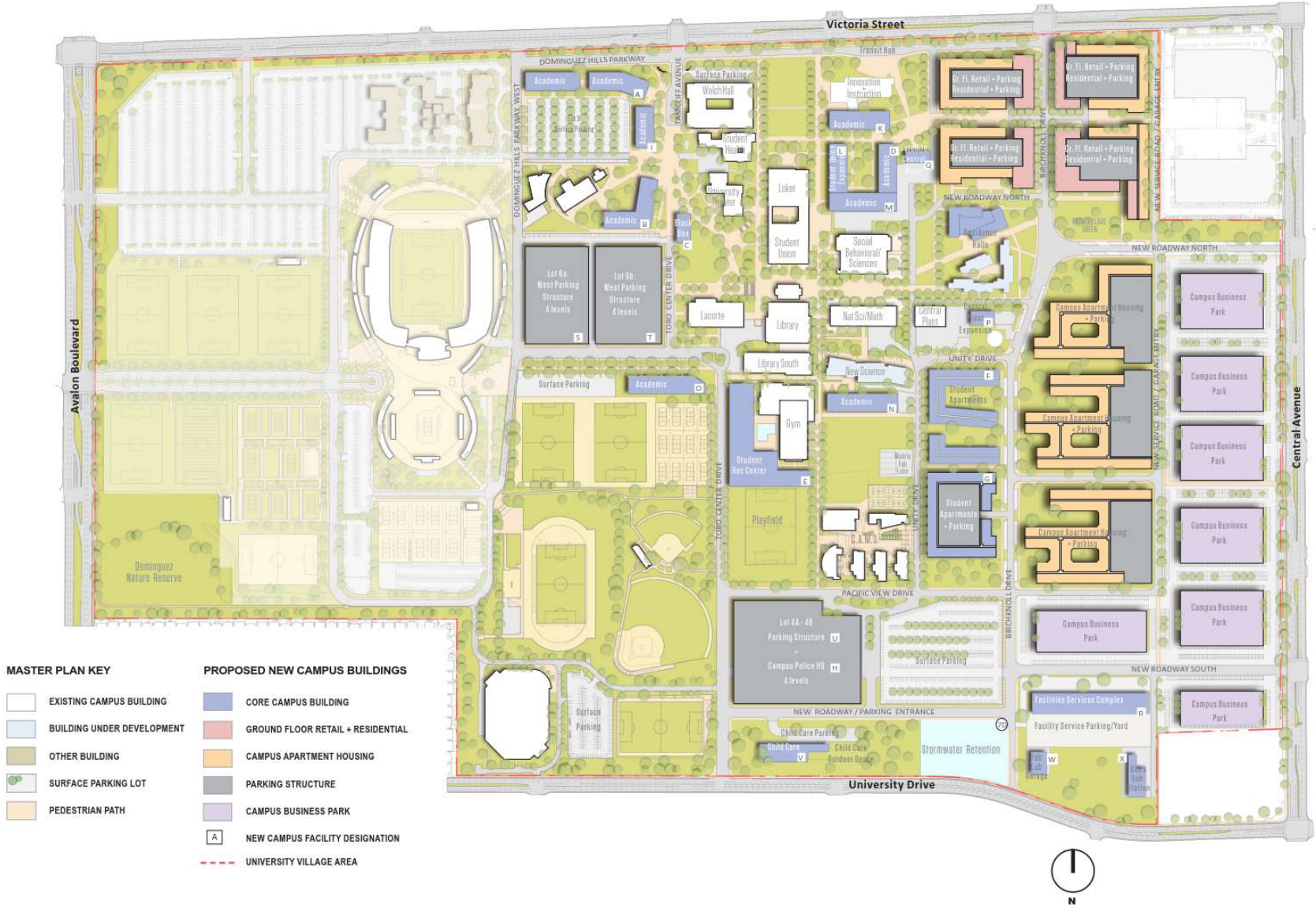
As shown in **Table 5.0-2**, the Reduced Project Alternative would result is similar impacts as compared to the proposed project associated with cultural resources, population and housing, public services, and utilities and service systems.

The Reduced Project Alternative would reduce impacts as compared to the proposed project associated with aesthetics, air quality, biological resources, greenhouse gas emissions, noise, and traffic and circulation~~, and utilities (water supply)~~, due to the reductions in intensity and footprint of developments. The alternative would increase impacts on population and housing as compared to the proposed project.

The environmental impacts under the Reduced Project Alternative and the reduction of student housing, ~~market rate~~ campus apartment housing, retail and ~~business park~~campus business park development by 25 percent would not aid the campus in providing the appropriate facilities for improving the CSUDH community. The reduction in facility sizes and the amount of on-campus student housing and ~~market rate~~campus apartment housing opportunities would be inadequate in providing resources to support the University's objectives of increasing on-campus housing for students, faculty, and staff — including development of campus apartment ~~market rate~~ housing to serve both University and non-University occupants within the proposed University Village project component, and making such housing options open to students, faculty, and staff. The reduction in student housing and campus apartment~~market rate~~ housing would also adversely impact the University's goal of providing adequate on-campus housing opportunities for faculty and staff to promote faculty and staff recruitment, and retain and enhance faculty and staff connectivity with the campus; and providing housing opportunities to graduate students and those in the greater community interested in campus life connectivity. Further, the reduction in the University Village would adversely impact the objectives relating to on-campus learning, research, and internship opportunities for students, faculty, and staff. Finally, the reduced development would adversely impact the University's objective of making efficient use of developable land and creating the appropriate balance between built areas and open space.

Increased Student Housing Alternative

Figure 5.0-2
Increased Student Housing Alternative (Updated)



The development parameters of the proposed project and Increased Student Housing Alternative are identical, except for the latter's increase in student housing by 1,040 beds and its 180-unit reduction of ~~market rate~~ campus apartment housing. Under this alternative, the location of the buildings, building size, and building footprint would remain identical with the ~~market rate~~campus ~~–~~apartment housing building proposed under the project. Similarly, the proposed construction schedule for the student housing would remain the same with what was proposed under the project, with a buildout year of 2035.

Environmental Impacts

Aesthetics

With an increase in student housing development intensity, obstruction of key views may increase, as well as impacts from lighting and glare. These impacts are dependent on final design of the developments, which is anticipated to mitigate any impacts to aesthetic resources and character through compliance with the Guidelines. Any mature trees removed during construction would be replaced to maintain campus character. The ~~market rate~~ campus apartment housing units' physical infrastructure would still be constructed and converted into a different use (student housing), and therefore, would not reduce any impacts to aesthetics as compared to the proposed project. Therefore, the proposed project and Increased Student Housing Alternative would not differ significantly in impacts to aesthetic resources.

Air Quality

The Increased Student Housing Alternative could result in a slight increase in short-term construction emissions (as compared to the proposed project) from the construction of additional student housing. However, construction emissions impacts would generally remain similar between the Increased Student Housing Alternative and the proposed project.

Overall operational emissions would decrease for the Increased Student Housing Alternative as compared to the proposed project. The substantial increase in on-campus student housing and associated decrease in commuters' VMT and trips generated would offset emissions from the increase in on-site operational emissions (energy use). A reduction in ~~market rate~~ campus apartment units would also reduce trips generated and emissions from ~~market rate~~ campus apartment unit populations. The analyses show that this alternative would result in a reduction of all criteria pollutants when compared to the proposed project. Specifically, ROG would reduce by 45 percent, NO_x by 17 percent, CO by 148 percent, SO_2 by one percent, and PM_{10} and $PM_{2.5}$ by two percent. The technical analyses and the modeling input and output files for the emissions calculations are located in **Appendix B.2** of this EIR.

Biological Resources

The Increased Student Housing Alternative has the potential to impact on-site jurisdictional drainages incrementally more than the proposed project if final design expands building footprints in this area. Any mature trees that are removed would be replaced with

landscaping to mitigate for permanent impacts to habitat and nesting birds. Thus, the Increased Student Housing Alternative would result in similar impacts to biological resources as the proposed project.

Cultural Resources

The Increased Student Housing Alternative would result in similar impacts to cultural resources as the project due to the similar areas of the campus that would be developed. A higher intensity of student housing would not result in a change in footprint or location of excavations as compared to the proposed project. Therefore, impacts to cultural resources would be similar under this alternative and the proposed project.

Greenhouse Gas Emissions

The Increased Student Housing Alternative would result in a slight increase of short-term construction emissions (as compared to the proposed project) from the construction of additional student housing. However, construction emissions impacts would generally remain similar between the Increased Student Housing Alternative and the proposed project.

The increased student housing under this Alternative would result in greater on-site emission levels due to higher on-campus energy demand, but this increase would be offset by the emission reductions from the elimination of the commuting trips, as additional on-campus housing would reduce VMT that would otherwise be generated by commuters. Operational emissions are anticipated to decrease under this Alternative relative to the proposed project due to the reduction in mobile source emissions attributed to vehicular trips that would be eliminated by the increase in on-campus student housing. The analyses show that this alternative would result in a reduction of GHG emissions by approximately four percent when compared to the proposed project. The technical analyses and the modeling input and output files associated with the emissions calculation are located in **Appendix B.2** of this EIR.

Noise

The Increased Student Housing Alternative would result in a reduction in traffic noise levels due to the reduction in trips generated by commuters as compared to the proposed project in Buildout Year 2035. Under this Alternative in year 2035, there would be no significant traffic-related noise impacts at sensitive receptor sites. In comparison, the proposed project would result in impacts to two sensitive receptor sites from traffic-related noise.

Buildout of the Increased Student Housing Alternative would occur over two general development phases, and the construction activities for each development phase would not be continuous, similar to the proposed project. Construction would result in short-term increase in noise levels from ground disturbing activities such as demolition, excavation, and grading. Similar to the proposed project, the construction related noise of the Increased Student Housing Alternative would result in a significant impact.

Population and Housing

The Increased Student Housing Alternative would provide more housing opportunities on campus to meet existing and projected housing demands associated with enrollment growth than would be provided under the proposed project. Therefore, this Alternative would result in similar, or incrementally less, impact relative to population in housing on the surrounding community.

Neither the proposed project nor the Increased Student Housing Alternative would result in the permanent displacement or loss of housing. Overall impacts relative to population and housing would be similar under both the proposed project and Increased Student Housing Alternative.

Public Services

Demand for fire, police, and emergency services may increase slightly relative to the proposed project due to an increase in service population numbers from the additional housing. Demand would be adequately managed by all services in the community over the incremental increase in population anticipated for both the proposed project and Increased Student Housing Alternative.

Similar to the proposed project, this alternative would not exceed service capacities of schools and libraries and would not require the development of new infrastructure or the expansion of an existing service. With the only significant difference in the proposed project and this alternative being the increase in housing, it can be concluded that the supply of parks and recreational facilities, additional planned improvements, and emergency services would be adequate in serving the increase in population numbers. Therefore, there would be no difference in impacts to Public Services between the proposed project and Increased Student Housing Alternative.

Traffic and Circulation

Due to the substantial amount of increased student housing this alternative proposes as compared to the proposed project, traffic modeling was performed to analyze the impacts it could have on circulation. (Appendix H includes traffic modeling results for the Increased Student Housing Alternative).

The Increased Student Housing Alternative would result in fewer significant impacts to AM and PM LOS on weekdays as compared to the proposed project (refer to Table 3 in Appendix H). This can be attributed to the increase in student housing for the year 2025, which would in turn result in fewer off-campus commuters. Table 3 also details the impacts the Alternative could also have on intersections on weekdays in the AM and PM peak hours, respectively, for the year 2035. The Increased Student Housing Alternative would also see a decrease in significant impacts to AM and PM LOS on weekdays as compared to the proposed project for the year 2035.

Buildout of the Increased Student Housing Alternative would not cause an increase in AM or PM Peak Hour traffic that is substantial in comparison to existing traffic load and

capacity of the local street system's intersections. These impacts are less than the proposed project's impacts on local intersections on weekdays for AM and PM peak hours for both the year 2025 and 2035. Therefore, this Alternative would result in fewer impacts to circulation than the proposed project.

As seen in Table 4 in Appendix H, northbound/eastbound freeway segments would see a decrease in significant impacts to AM and PM LOS on weekdays as compared to the proposed project due to the increase in student housing for the year 2025. Table 4 also details the impacts the Alternative could also have on freeway segments on weekdays in the AM and PM peak hours, respectively, for the year 2035. The Increased Student Housing Alternative would result in a decrease in significant impacts to AM and PM LOS on weekdays as compared to the proposed project for the year 2035.

As seen in Table 5 in Appendix H, southbound/westbound freeway segments would see a decrease in significant impacts to AM and PM LOS on weekdays as compared to the proposed project due to the increase in student housing for the year 2025. Table 5 also details the impacts the Alternative could have on freeway segments on weekdays in the AM and PM peak hours, respectively, for the year 2035. The Increased Student Housing Alternative would result in a decrease in significant impacts to AM and PM LOS on weekdays as compared to the proposed project for the year 2035.

For the Increased Student Housing Alternative, development would not cause an increase in AM or PM Peak Hour traffic that is substantial in comparison to existing traffic load and capacity of the freeways. This Alternative would therefore result in fewer impacts to circulation than the proposed project.

The Alternative would result in a decrease in vehicular trips and congestion at the analyzed intersections and freeway segments due to the trip rates generated by the mix of development types under this Alternative. This Alternative would decrease unsatisfactory LOS impacts as compared to the proposed project due to the reduction in vehicular trips and VMT.

Similar to the proposed project, the Increased Student Housing Alternative would provide safe pedestrian connections between campus buildings, adjacent streets, and transit facilities and would not significantly disrupt existing or planned pedestrian facilities or significantly conflict with applicable non-automotive transportation plans, guidelines, policies, or standards. Furthermore, the Increased Student Housing Alternative would not significantly disrupt existing or planned bicycle facilities, nor would it significantly conflict with applicable non-automotive transportation plans, guidelines, policies, or standards.

The Increased Student Housing Alternative would be similar to the proposed project in that it would not conflict with any adopted policies, plans, or programs regarding the performance or safety of public transit, bicycle or pedestrian facilities.

Tables 5.0-3 through **5.0-8** below provide a summary of LOS impacts and significant impacts at study area intersections and freeway segments for the Interim and Buildout years.

Table 5.0-3
Summary of Intersection Impacts AM Peak Hour

2025 Plus Project AM Peak Hour				2035 Plus Project AM Peak Hour			
Proposed Project		Increased Student Housing		Proposed Project		Increased Student Housing	
Number of Intersections with:				Number of Intersections with:			
Unsatisfactory LOS	Significant Impacts	Unsatisfactory LOS	Significant Impacts	Unsatisfactory LOS	Significant Impacts	Unsatisfactory LOS	Significant Impacts
7	6	6	5	13	12	13	12

Table 5.0-4
Summary of Intersection Impacts PM Peak Hour

2025 Plus Project PM Peak Hour				2035 Plus Project PM Peak Hour			
Proposed Project		Increased Student Housing		Proposed Project		Increased Student Housing	
Number of Intersections with:				Number of Intersections with:			
Unsatisfactory LOS	Significant Impacts	Unsatisfactory LOS	Significant Impacts	Unsatisfactory LOS	Significant Impacts	Unsatisfactory LOS	Significant Impacts
10	7	10	8	16	14	16	14

Table 5.0-5
Summary of Freeway Segment Impacts AM Peak Hour – Northbound/Eastbound

2025 Plus Project AM Peak Hour				2035 Plus Project AM Peak Hour			
Proposed Project		Increased Student Housing		Proposed Project		Increased Student Housing	
Number of Freeway Segments with:				Number of Freeway Segments with:			
Unsatisfactory LOS	Significant Impacts	Unsatisfactory LOS	Significant Impacts	Unsatisfactory LOS	Significant Impacts	Unsatisfactory LOS	Significant Impacts
32	5	32	5	32	17	32	16

Table 5.0-6
Summary of Freeway Segment Impacts PM Peak Hour – Northbound/Eastbound

2025 Plus Project PM Peak Hour				2035 Plus Project PM Peak Hour			
Proposed Project		Increased Student Housing		Proposed Project		Increased Student Housing	
Number of Freeway Segments with:				Number of Freeway Segments with:			
Unsatisfactory LOS	Significant Impacts	Unsatisfactory LOS	Significant Impacts	Unsatisfactory LOS	Significant Impacts	Unsatisfactory LOS	Significant Impacts
42	14	42	11	44	36	44	34

Table 5.0-7
Summary of Freeway Segment Impacts AM Peak Hour – Southbound/Westbound

2025 Plus Project AM Peak Hour				2035 Plus Project AM Peak Hour			
Proposed Project		Increased Student Housing		Proposed Project		Increased Student Housing	
Number of Freeway Segments with:				Number of Freeway Segments with:			
Unsatisfactory LOS	Significant Impacts	Unsatisfactory LOS	Significant Impacts	Unsatisfactory LOS	Significant Impacts	Unsatisfactory LOS	Significant Impacts
42	14	42	10	44	36	44	36

Table 5.0-8
Summary of Freeway Segment Impacts PM Peak Hour – Southbound/Westbound

2025 Plus Project PM Peak Hour				2035 Plus Project PM Peak Hour			
Proposed Project		Increased Student Housing		Proposed Project		Increased Student Housing	
Number of Freeway Segments with:				Number of Freeway Segments with:			
Unsatisfactory LOS	Significant Impacts	Unsatisfactory LOS	Significant Impacts	Unsatisfactory LOS	Significant Impacts	Unsatisfactory LOS	Significant Impacts
36	6	36	6	36	26	36	25

Similar to the proposed project, the Increased Student Housing Alternative would not result in any impacts relative to traffic hazards. Buildout of the campus, including the designs of internal circulation and land use would comply with state and regional standards and would not result in hazards due to geometric design features.

Similar to the proposed project, emergency access would not be adversely affected under the Increased Student Housing Alternative. Campus officials would coordinate with the State Fire Marshal and local police and fire agencies to ensure adequate emergency access is retained both during and after construction. Similar to the proposed project, impacts to emergency access would be less than significant under this alternative.

Utilities and Service Systems

The impacts to utilities and service systems under this alternative would be similar to the proposed project. The ~~With the exception of water supply, the~~ utility systems (wastewater, storm drain, solid waste, water supply) were determined under the proposed project to be sufficient in capacity and supply for the 20,000 FTES anticipated for the future planning year horizon. No off-site extension of wet or dry utility lines would be required under either this alternative or the project, and thereby, no additional impacts would result. With respect to water supply, this alternative would result in an incremental increase in water demand as compared to the proposed project; however, adequate water supply would be available for buildout under the project or this Alternative, and~~,~~ and thus the related impact would be similar ~~to the proposed project~~.

Conclusion

As shown in **Table 5.0-2**, the Increased Student Housing Alternative would result is similar impacts as compared to the proposed project associated with aesthetics, biological resources, cultural resources, population and housing, public services, and utilities and service systems.

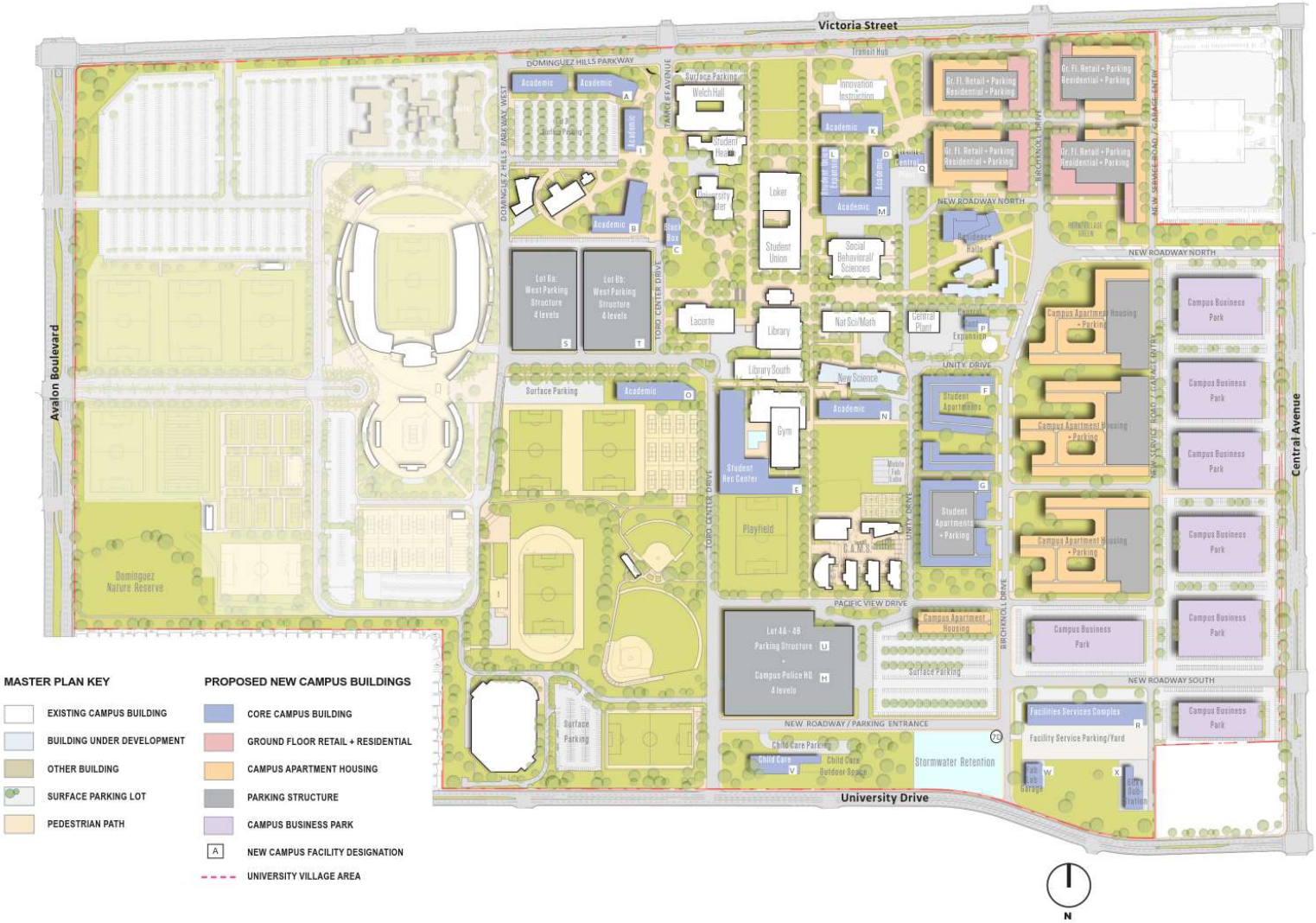
The Increased Student Housing Alternative would result in a decrease in impacts as compared to the proposed project relative to air quality, GHG emissions, noise, and traffic and circulation through the reduction in VMT and trips generated due to the increase in on-campus student housing. This decrease in mobile-source emissions and vehicular noise results in the reduction of impacts to these resources.

Under the Increased Student Housing Alternative, the campus would result in a reduced magnitude of significant environmental impacts compared to the proposed project. The Increased Student Housing Alternative would not only meet campus objectives of providing adequate on-campus housing opportunities to meet demand, but provide the facility types and amounts to service the anticipated 20,000 FTES. The inclusion of public-private partnerships under this alternative would help students, faculty, and staff find more opportunities for internships, additional learning, and research. The Increased Student Housing Alternative would help the campus meet the majority of its project objectives that were identified to further the University's educational mission. This alternative's reduction

in environmental impacts helps the campus meet its objectives in reinforcing its sustainability goals.

Increased Student Housing with ~~Market Rate~~ Campus Apartment Housing Relocation Alternative

Figure 5.0-3
Increased Student Housing and ~~Market Rate~~ Campus Apartment Housing Relocation Alternative (Updated)



The Increased Student Housing with ~~Market Rate~~Campus Apartment Housing Relocation Alternative (hereafter Relocation Alternative) includes all the same elements as the Increased Student Housing Alternative, with a relocation of 100 ~~market rate~~campus apartment housing units to a surface parking lot on the campus located at the corner of Birchknoll Drive and Pacific View Drive. Compared to the proposed project, this alternative would increase the total number of student beds by 1,040, and the total number of campus apartment housing ~~market rate~~ dwelling units would reduce by 180 units. Similarly, the proposed construction schedule for the student housing would remain the same with what was proposed under the proposed project, with a buildout year of 2035.

Environmental Impacts

Aesthetics

With an increase in student housing development intensity and relocation of the ~~market rate~~ campus apartment housing units, impacts to aesthetic resources could increase from obstruction of key views or the addition of light and glare under the Relocation Alternative as compared to the proposed project. The relocation of the ~~market rate~~ campus apartment housing units from the more central location to an existing surface lot may cause a more noticeable visual impact relative to views both to and from the campus. The greater intensity of development in this location for the Relocation Alternative may also cause a visible new source of lighting and glare to those residential communities as well. Therefore, the Relocation Alternative will have incrementally greater impacts to aesthetic resources as compared to the proposed project.

Air Quality

This alternative would be similar in its reduction in criteria pollutant emissions and similar in its exceedance of SCQAMD thresholds as the proposed project. The Relocation Alternative would increase on-campus housing opportunities for students and would reduce student commuter trips and VMT, as compared to the proposed project. Therefore, the Relocation Alternative would likewise decrease operational emissions. The relocation of ~~market rate~~ campus apartment housing units would not significantly change the stationary source emissions of the campus as compared to the proposed project since it is a relocation and not a change in land use type or population numbers. Therefore, the Relocation Alternative would be anticipated to result in less impact to air quality compared to the proposed project.

Biological Resources

The relocation of ~~market rate~~ campus apartment housing units nearer to a biologically sensitive area may result in greater impacts to the jurisdictional waters compared to the proposed project. Considering potential burrowing owl habitat is also in close proximity to the relocation site, this alternative may also cause a more significant impact to the resource as compared to the proposed project. Impacts to biological resources would be incrementally greater under this alternative as compared to the proposed project.

Cultural Resources

Under this alternative, the ~~market rate~~ campus apartment housing units would be relocated to an area not previously subject to substantial ground disturbance. Relocation of the ~~market rate~~ campus apartment housing units to a surface parking lot may increase the potential for impacts to unknown subsurface resources through excavation and grading under the Relocation Alternative. Therefore, compared to the proposed project, this Alternative would have an incrementally higher potential for impacts to cultural resources.

Greenhouse Gas Emissions

Both operational and construction-related GHG emissions for this alternative would be similar to the Increased Student Housing Alternative and re-location of the ~~market rate~~ campus apartment housing units would have minimal impact on emissions disclosed for that Alternative. Therefore, this alternative would result in fewer GHG emissions as compared to the proposed project.

Noise

Similar to the Increased Student Housing Alternative, noise is anticipated to decrease under this alternative as compared to the proposed project. The relocation of the campus apartment ~~market rate~~ units would not add additional noise impacts, since the physical infrastructure for the units would also be built under the Increased Student Housing Alternative. Additional on-campus housing opportunities would decrease the VMT and commuter trips generated, thus decreasing vehicular noise. Therefore, the Relocation Alternative would result in fewer operational noise impacts as compared to the proposed project.

Population and Housing

This Alternative would relocate 100 ~~market rate~~ campus apartment housing units to a separate location. All other components would remain the same as under the Increased Student Housing Alternative; therefore, impacts relative to population and housing would be the same as under the Increased Student Housing Alternative.

Public Services

As disclosed for the Increased Student Housing Alternative, demand for fire, police, and emergency services may increase slightly relative to the proposed project due to an increase in service population numbers from the additional housing. Relocation of units would not alter this conclusion.

This alternative would not exceed service capacities of schools and libraries and would not require the development of new infrastructure or the expansion of an existing resource. With the only significant difference in the proposed project and this alternative being the increase in housing, it can be concluded that the supply of parks and recreational facilities, additional planned improvements, and emergency services would be adequate in serving

the increase in population numbers. Therefore, there would be no difference in impacts to Public Services between the proposed project and Relocation Alternative.

Traffic and Circulation

In this alternative, the amounts of each development and land use type would be identical to the Increased Student Housing Alternative. The relocation of 100 ~~market rate~~ campus apartment housing units would not result in a significant difference in impacts to traffic and circulation as compared to how the Increased Student Housing Alternative compares to the proposed project[7]. Thus, Relocation Alternative would result in fewer impacts relative to traffic than under the proposed project due to the increase in student housing, similar to the analysis for the Increased Student Housing Alternative.

Utilities and Service Systems

Considering this alternative does not differ from the Increased Student Housing Alternative with the exception of the relocation of 100 ~~market rate~~ campus apartment housing units, impacts would also not differ from the proposed project's impacts on utilities and service systems. The relocation of ~~market rate~~ campus apartment housing housing will have no effect on the overall utility demand compared to the proposed project, as detailed under the Increased Student Housing Alternative. No difference in impacts would result from this Relocation Alternative as compared to the proposed project.

Conclusion

As shown in **Table 5.0-1**, the Relocation Alternative would result is similar impacts as compared to the proposed project associated with population and housing, public services, and utilities and service systems.

The Relocation Alternative would result in a decrease in impacts as compared to the proposed project associated with air quality, GHG emissions, noise, and traffic and circulation due to the reduction in VMT and trips generated due to the increase in on-campus student housing.

The Relocation Alternative would result in an increase in impacts to resources such as aesthetics, biological resources, cultural resources due to the relocation of the ~~market rate~~ campus apartment housing units to a surface lot. The placement of development in this location would potentially introduce new visual obstructions and development to an area left as a surface parking lot in the proposed project. The relocation has the potential to incrementally impact the jurisdictional drainages and cultural resources more than the proposed project due to a new surface area being excavated.

[7] Modelling was not performed for the Relocation Alternative due to conclusions being able to be drawn from the Increased Student Housing Alternative traffic models.

The alternative would help the campus meet most of its project objectives through its provision of adequate facility types and amounts, on-campus housing opportunities, as well as its public-private relationships that would provide learning, research, and internship opportunities.

Environmentally Superior Alternative

Under CEQA Guidelines Section 15126.6(e)(2), an analysis of alternatives to a project must identify an Environmentally Superior Alternative among the alternatives evaluated in an EIR. The CEQA Guidelines also state that should it be determined that the No Project Alternative is the Environmentally Superior Alternative, the EIR shall identify another Environmentally Superior Alternative among the remaining alternatives. With respect to identifying an Environmentally Superior Alternative among those analyzed in this Draft EIR, the range of potentially feasible alternatives includes the:

- No Project Alternative
- Reduced Project Alternative
- Increased Student Housing Alternative
- Increased Student Housing with ~~Market Rate~~Campus Apartment Housing Relocation Alternative

A detailed discussion of the potential impacts associated with each alternative is provided above, with comparisons to the magnitude of impacts of the proposed project. Pursuant to Section 15126.6(c) of the CEQA Guidelines, the discussion below addresses the ability of the Alternatives to "avoid or substantially lessen one or more of the significant effects" of the Project.

Table 5.0-2 provides a summary comparison of the significant impacts attributable to each of the project alternatives relative to the proposed project. As explained in the table notes, down arrows indicate impacts under the alternative would be less than the proposed project, up arrows indicate impacts would be greater than the proposed project, and "=" indicates impacts would be similar to the proposed project.

In accordance with the CEQA Guidelines requirement to identify an Environmentally Superior Alternative other than the No Project Alternative, a comparative evaluation of the remaining alternatives indicates that the Increased Student Housing Alternative would be the Environmentally Superior Alternative. As discussed above, this alternative would reduce most of the proposed project's significant impacts compared to the other remaining alternatives. However, the Increased Student Housing Alternative would not completely avoid any of the proposed project's significant impacts; it would reduce the impact to a magnitude less than that of the proposed project.

Specifically, significant and unavoidable impacts with respect to air quality, GHG emissions, noise, traffic and circulation, and utilities (water supply) would still occur under this alternative. While significant impacts would still result from the alternative, the

following impacts would decrease in magnitude for each resource as compared to the proposed project.

- Air quality impacts would be reduced through the buildout year of 2035, with emissions of criteria pollutants decreasing from anywhere between one to 148 percent, and GHGs decreasing by approximately four percent relative to the proposed project.
- Noise impacts would decrease to a less than significant level for the alternative at two intersections previously identified to result in significant impacts throughout the buildout year under the proposed project.
- Significant traffic impacts at intersection would decrease under this alternative for both AM and PM peak hours for the years 2025 and 2035 by at least one intersection. For the northbound/eastbound freeway segments, the alternative would reduce impacts to at least one segment for the AM and PM Peak hours as compared to the proposed project. Four segments would not experience significant impacts on the southbound/westbound freeway segments for the AM peak hour for the year 2025 as compared to the proposed project. For the year 2025 PM peak hour, and both AM and PM peak hours for the year 2035, there would be a reduction of significant impacts at least 1 freeway segment.

Although the alternative would still result in significant and unavoidable impacts, future development would implement minimization and mitigation measures, as under the proposed project, to reduce these impacts to the extent practicable.

As indicated above, this Increased Student Housing Alternative would meet all the objectives established for the project, as described within the Project Description. The Increased Student Housing Alternative would aid the campus in meeting its goals for the 2018 Campus Master Plan, and – other than the No Project Alternative – would result in the least environmental impacts of all the alternatives.

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List of Agencies and Organizations Consulted

Agencies consulted during preparation of this Environmental Impact Report (EIR) document are listed below:

- California Air Resources Board
- California Fish and Game Region #5
- California Highway Patrol
- Caltrans District #7
- California Waste Management Board
- U.S. Department of Fish and Wildlife
- Department of Toxic Substances Control
- Native American Heritage Commission
- Office of Historic Preservation
- Office of Planning and Research
- Regional Water Quality Control Board #4 (Los Angeles County)
- Southern California Air Quality Management District
- State Lands Commission