Final
Environmental Impact Report

North Campus Project

California State University, Los Angeles

CAL STATE LA

May 2017

WSP | PARSONS BRINCKERHOFF

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California State University, Los Angeles

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State Clearinghouse # 2016111038

Lead Agency
The Board of Trustees of the California State University;
California State University, Los Angeles
Planning, Design and Construction
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Summary

This Final Environmental Impact Report (EIR) has been prepared in accordance with the California Environmental Quality Act (CEQA) of 1970 (Public Resources Code, Section 21000 et seq.) and the CEQA Guidelines (California Code of Regulations, Section 15000 et seq.) to evaluate the potentially significant impacts associated with the North Campus project.

The Project

The proposed North Campus project provides for new student housing facilities, new sport and recreation fields, and a parking structure within the northern portion of the California State University, Los Angeles (Cal State LA) campus. The project site is comprised of an existing sports field north of Paseo Rancho Castilla (North Field) and surface parking lots.

The student housing facilities will provide 1,500 beds for freshmen and sophomore students, as well as an associated dining facility. The student residence hall is anticipated to be a five-story building with internal courtyards, and the adjacent dining hall will be a single-story facility.

The existing North Field will be upgraded, including installation of natural grass turf, and will include an approximately 30,000 square-foot facility with sports fitness rooms, locker rooms, administrative rooms, and other amenities for players training at the field. No lighting will be provided at the field. The North Field is anticipated to be used as a practice field by a major league soccer team. As this is a training field, no spectators will be present and no bleachers are therefore provided at the fields. Small surface parking for players and staff will be provided along western edge of the fields. The existing surface parking lots immediately south across Paseo Rancho Castilla will be replaced with new sports and recreation fields. These South Fields will be used by the University students, and will support the Athletics Department programs.

The displaced surface parking will be accommodated in a new parking structure located next to the existing Parking Structure C, on the site that is currently used as a surface parking lot. The four to five-level parking structure will provide approximately 1,650 parking spaces, including up to 100 new parking spaces. The parking structure may also provide space for long-term storage of cars by University students.

Project Objectives

The primary project objectives are to:

- Enhance the provision of student housing on campus to help accommodate the strong student demand for on-campus housing

- Enhance the provision of student housing on campus since living on campus increases students' academic success and improves graduation rates

- Provide student housing at appropriate locations to create sense of place and community identity for students living on campus

- Provide needed sports facilities for University students, including students living at the existing residence halls and new residence hall adjoining these sport facilities

- Provide opportunities for students to access research, scholarship, internship, and job opportunities with a professional sports organization; opportunities to use the state-of-the-art soccer training facility by campus student athletes to advance the University's athletic and educational goals; including opportunities for additional resources to complete the development of a Sports Management degree program

Environmental Impacts

This EIR evaluates the potential environmental impacts associated with the North Campus project and identifies mitigation measures capable of avoiding or substantially reducing the identified potential significant impacts. A summary of environmental impacts, mitigation measures, and a level of impact remaining after mitigation is presented in Table S-1 at the end of this Summary.

The analysis contained in this EIR uses words "significant" and "less than significant" in the discussion of impact. These words specifically define the degree of impact and parallel language used in CEQA Guidelines. As required by CEQA, mitigation measures have been identified in this EIR to avoid or substantially reduce the level of potentially significant impacts to the greatest extent possible.

Beneficial Impacts

This EIR identifies the following effects of the North Campus project that are beneficial:

- Reducing commute trips and vehicle miles traveled (VMTs)
- Reducing peak hour trips on the roadway network serving the campus
- Reducing vehicular air pollutant emissions and greenhouse gases (GHG)
- Improving overall visual character of the site
- Replacing existing impervious surface parking with pervious surfaces that will reduce stormwater runoff from the project site

Impacts Considered and Found to be Less Than Significant

The analysis contained in the EIR indicates that the project will not result in a significant impact with respect to the following:

- Archaeological and paleontological resources
- Fire and police protection services
- Utilities and service systems
- Short-term construction effects on water quality
- Cumulative effects, other than short-term cumulative peak day construction emissions
- Growth-inducing and irreversible effects

Pursuant to CEQA and the CEQA Guidelines, an Initial Study was prepared for this project (refer to Appendix A). The Initial Study concluded that the project will result in either no impact or a less than significant impact with regards to:

- Agriculture and forest resources
- Biological resources
- Historic resources
- Geology and soils
- Hazards and hazardous materials
- Hydrology and water quality
- Land use and planning
- Mineral resources
- Noise
- Housing and population
- Recreation

Potentially Significant Impacts that Can Be Mitigated

The EIR analysis identified the following potentially significant impact associated with the project that can be mitigated to a less than significant level.

- Short-term and intermittent construction noise, traffic, and solid waste

Unavoidable Significant Impacts

The CEQA Guidelines define a significant impact on the environment as “a substantial, or potentially substantial, adverse change in any of the physical conditions within an area affected by the project, including land, air, water, flora, fauna, ambient noise, and objects of historic or aesthetic significance” (Section 15382). In order to approve a project with unavoidable significant impacts, the lead agency must adopt a Statement of Overriding Considerations. In adopting such a statement, the lead agency finds that it has reviewed the EIR, has balanced the benefits of the project against its unavoidable significant effects, and has concluded that the benefits of the project outweigh the unavoidable adverse environmental effects, and thus, the adverse environmental effects may be considered "acceptable" (CEQA Guidelines, Section 15093[a]).

- Short-term and intermittent project-specific and cumulative peak construction day air quality impact

Alternatives to the Project

Alternatives to the project considered include the following:

Alternative 1: "No Project"
Alternative 2: Smaller Project
Alternative 3: Additional Student Housing

Among the alternatives considered, the Additional Student Housing Alternative could be considered environmentally superior to the project because while it would result in the same construction-related impact as that associated with construction of the North Campus project's facilities and improvements, it would significantly increase the beneficial air quality, GHG, and traffic effects as well as achieve project objectives to a much greater extent. However, since funding for additional student housing is not in place, this alternative may not be fiscally viable at this time.

Issues Identified During the NOP Process

No areas of controversy were identified during the Notice of Preparation (NOP) process. In response to the NOP, certain issues were raised by public agencies and these issues are addressed in the EIR as follows:

- Traffic effect on state facilities (addressed in Section 3.3)
- Potential effect on tribal cultural resources (addressed in Section 3.6)

Mitigation Monitoring Program

In accordance with CEQA Section 21081.6, a mitigation monitoring program will be adopted by CSU Board of Trustees, if the project is approved. The mitigation monitoring program will be prepared as a separate document and will be designed to ensure compliance with the adopted mitigation measures contained in the Final EIR. The program will be available for public review prior to the CSU Board of Trustees actions on the North Campus project.

Summary of Impacts

Table S-1 summarizes the environmental effects associated with the project, the mitigation measures required to avoid or minimize identified environmental impact, and the level of impact remaining after full implementation of identified mitigation measures.

Table S-1
Summary of Environmental Impacts and Mitigation Measures

	Potential Environmental Impact	**Mitigation Measures**	**Level of Impact After Mitigation**
Beneficial Impacts			
Vehicle Miles Travelled (VMTs)/Vehicular Trips	The project will result in a net reduction of approximately 25,801 VMTs per day and 1,736 daily trips, due to the provision of additional 1,500 beds in the project's student housing facilities.	Impact will be beneficial.	Beneficial impact
Air Quality and Greenhouse Gases (GHG)	Provision of student housing at North Campus will reduce student commute trips, resulting in a reduction of approximately 242 metric tons of GHG, net reduction in NOx, PM_{10} and $PM_{2.5}$ emissions, and a substantial reduction in CO and ROG emissions.	Impact will be beneficial.	Beneficial impact
Traffic and Circulation	The project will reduce student commute trips and VMTs which will have a beneficial effect of reducing vehicular travel on the roadway system surrounding the project site. Overall, the project will reduce the morning peak hour trips by 134 trips, and the afternoon peak hour trips by 115 trips.	Impact will be beneficial.	Beneficial impact
Aesthetics	The proposed student housing and South Fields sport and recreation fields will replace existing surface parking lots resulting in an improved visual character of the north	Impact will be beneficial.	Beneficial impact

	Potential Environmental Impact	Mitigation Measures	Level of Impact After Mitigation
	campus area that complements and is compatible with the existing student housing clustered immediately west of the proposed new sport and recreation fields. Merging the new student housing with the existing student residence halls will create a larger campus residential community that includes housing, dining, and recreation. It will also create a visual character and an overall image representing the student residential community. Variations in height between the existing two to three-story student residence halls and the project's five-story residence halls together with variations in architectural styles, and provision of open space in form of new sport and recreation fields will provide visual articulation and enrich the visual character and image of this greater student community within the north campus area, and improve the overall visual character of the site.		
Stormwater Runoff	The project's provision of new sport and recreation fields and an improved soccer field will result in a beneficial effect of replacing existing impervious surface parking with pervious surfaces that will reduce stormwater runoff from the project site.	Impact will be beneficial.	Beneficial impact
Impacts Considered But Found To Be Less Than Significant (CEQA Guidelines Section 15128)			

	Potential Environmental Impact	Mitigation Measures	Level of Impact After Mitigation
Archaeological and Paleontological Resources	The project site is comprised of existing surface parking and a sports field. There are no known archaeological or paleontological resources within or near the project site. While the potential for uncovering such significant resources is considered remote, in an unlikely event that such resources are discovered during project construction, compliance with existing laws and regulations will ensure no significant impact.	In an unlikely event that previously unknown archaeological or paleontological resources are discovered during the construction of the North Campus project, compliance with the existing laws and requirements will reduce that impact to a less than significant level. These laws and regulations include: (1) stopping work in the event that an archaeological or paleontological resource is discovered until a qualified archeologist or paleontologist can visit the site and assess the significance of the potential resource.; (2) the archeologist or paleontologist will then conduct on-site archaeological or paleontological monitoring, including inspection of exposed surfaces to determine if archaeological resources or fossils are present, and (3) if such resources are present, the monitor will have the authority to divert grading away from exposed resources temporarily in order to recover the resources.	Less than significant
Fire and Police Services	Fire safety is will be incorporated in the design and construction of all project facilities, and will include consultations with the Fire Marshal and University fire officials to ensure that all requirements are met. All required fire safety features, including smoke detectors and full sprinkler systems, fire lines and hydrants with appropriate fire flows, and unobstructed fire emergency access will also be provided. All fire equipment will be maintained in accordance with State and local regulations, and will be inspected on a regular schedule and re-charged, repaired, or replaced	Impact will be less than significant, and no mitigation is required.	Less than significant

	Potential Environmental Impact	Mitigation Measures	Level of Impact After Mitigation
	as needed. Before the new student housing, dining, parking and sport facilities are occupied, the University Police Department will review lighting and landscaping plans, traffic ingress/egress plans, and project plans for each facility to ensure that all requirements are incorporated. The new facilities will be incorporated into the University's security and emergency response plans to ensure appropriate emergency response. With these features, impact on fire and police services will be minimized.		
Utilities and Service Systems	The project includes provision of all necessary utility infrastructure connecting to the campus' existing water, sewer, and drainage utility grid which has the capacity to accommodate the project. The mandated water conservation measures, including ultra-low flow toilets, urinals, taps, water conservation plumbing; use native or drought-resistant vegetation in landscaping, and other required conservation measures will be implemented. The project facilities will also implement comprehensive waste reduction, diversion, and recycling programs that will significantly reduce the amount of waste needed disposal. With these components and payment of all legally required capital facilities fees, connections fees, and service fees impact on utilities and service systems will be minimized.	Impact will be less than significant, and no mitigation is required.	Less than significant

	Potential Environmental Impact	Mitigation Measures	Level of Impact After Mitigation
Short-term construction effects on water quality	Construction of new facilities will proceed in compliance with current regulations that require design and implementation of a Storm Water Pollution Prevention Plan (SWPPP), which includes implementation of Best Management Practices (BMPs) throughout construction to reduce impacts on water quality.	Impact will be less than significant, and no mitigation is required.	Less than significant
Cumulative and growth-inducing effects	The project will have a beneficial impact on traffic and circulation, air quality and GHG, stormwater runoff, and aesthetics, and therefore, the project will not contribute to a significant cumulative impact While the provision of the North Campus project facilities together with related projects will result in an incremental increase in demand for police and fire protection services, and public utilities and service systems, this increase will be minimized through implementation of all required comprehensive safety and security measures, provision of required utility infrastructure, and payment of all legally required capital facilities fees. The project provides additional student housing on campus, an associated dining facility, new sport and recreation fields, an improved soccer practice field, and a parking structure replacing surface parking. The project does not provide housing for residents of the city or the surrounding areas that could induce population growth, and will not result in an increase in student enrollment at Cal	Impact will be less than significant, and no mitigation is required.	Less than significant

	Potential Environmental Impact	Mitigation Measures	Level of Impact After Mitigation
	State LA. The project includes all necessary improvements to the existing infrastructure, and no excess capacity that could induce growth will be provided.		
Significant Environmental Impacts That Can Be Avoided or Mitigated (CEQA Guidelines Section 15126.4)			
Short-term and intermittent construction effects, other than air quality (project-specific and cumulative)	Construction activities may cause localized traffic congestion, noise, and may generate waste.	1. Construction hours will be consistent with the City of Los Angeles regulations, which limit the hours of construction activity between 7:00 am and 9:00 pm Monday through Friday, and from 8:00 am and 6:00 pm on Saturdays and national holidays. No construction activity will take place on Sunday. 2. Muffled construction equipment will be used whenever possible. 3. Construction staging areas will be located as far as possible from nearby uses. 4. As needed, a temporary barrier of no less than 8 feet in height made of solid wood or other similar material will be provided and placed strategically along the construction site boundary to protect the nearby residential uses, the existing student residences, the Anna Bing Arnold Children's Center, and LACHSA from construction noise. 5. A flag person will be employed at various intersections as needed to direct traffic when heavy construction vehicles enter the campus. 6. Construction and haul trucks will use the City of Los Angeles designated truck routes to travel to and from	Less than significant

	Potential Environmental Impact	Mitigation Measures	Level of Impact After Mitigation
		the site. 7. Construction-related truck traffic will be scheduled to avoid peak travel time on the I-10 and I-710 freeways, as feasible. 8. Hauling of equipment and materials and other truck trips during construction will be scheduled during non-peak hours, to the extent feasible. 9. Construction inert materials, including vegetative matter, asphalt, concrete, and other recyclable materials will be recycled to the extent feasible.	
Tribal Cultural Resources	There are no known cultural tribal resources within or near the project site, or within the campus. While the potential for uncovering significant tribal cultural resources at the project site is considered remote, in an unlikely event that such resources are discovered during project construction, mitigation measures have been identified to reduce such impact.	While the potential for uncovering significant tribal cultural resources at the project site is considered remote, in an unlikely event that such potential resources are discovered during project construction, the following measures will be implemented: 1. All earth moving construction activity will be halted until a qualified Native American monitor can visit the site and assess the significance of the potential resource. 2. The Native American monitor will then conduct on-site cultural tribal resources monitoring, including inspection of exposed surfaces to determine if such resources are present. 3. If such resources are present, the Native American monitor will have the authority to divert grading away from exposed resources temporarily to examine the potential significance of such resources.	Less than significant

<table>
<tr><th></th><th>Potential Environmental Impact</th><th>Mitigation Measures</th><th>Level of Impact After Mitigation</th></tr>
<tr><td></td><td></td><td>4. If such resources are determined significant and cannot be recovered, the resource site will be covered with a layer of chemically stable soil before constructing project facilities on the site, if feasible; or if data recovery through excavation is the only feasible mitigation, a data recovery plan, which makes provision for adequately recovering the scientifically consequential information from and about the tribal cultural resource will be prepared and adopted prior to any excavation being undertaken and implemented during excavation or grading.
5. Such significant resources will be treated with culturally appropriate dignity taking into account the tribal cultural values and meaning of the resource, including protecting the confidentiality of the resource.</td><td></td></tr>
<tr><td colspan="4">Unavoidable Significant Environmental Impacts
(CEQA Guidelines Section 15126[b] – Lead Agency must issue a “Statement of Overriding Considerations” under CEQA Guidelines Section 15093 if the Agency determines these effects are significant and approves the project).</td></tr>
<tr><td>Project-specific and cumulative short-term and intermittent peak day construction air quality effects</td><td>Construction of project facilities and improvements will involve equipment and activities that generate air pollutant emissions. The peak construction day emissions will be below the SCAQMD threshold amounts for all criteria pollutants, except for emissions of oxides of nitrogen (NOx).</td><td>The University will implement the following mitigation measures to reduce identified impacts by imposing conditions on the construction contractor.
1. During high wind episodes (wind speeds exceeding a sustained rate of 25 miles per hour); grading or other high-dust generating</td><td>Implementation of mitigation measures will reduce peak construction day emissions, however since emissions of NOx could be above the daily threshold</td></tr>
</table>

	Potential Environmental Impact	Mitigation Measures	Level of Impact After Mitigation
		activities will be suspended. 2. During smog alerts, all construction activities will be suspended. 3. All construction equipment will be properly tuned. 4. Diesel particulate filters are installed on diesel equipment and trucks and low sulfur diesel will be used for construction equipment. 5. Gasoline, butane, or electric power construction equipment will be used if feasible. 6. To reduce emissions from idling, all equipment and vehicles not in use for more than 5 minutes will be turned off, whenever feasible. 7. Low VOC-content asphalt and concrete will be utilized to the extent possible. 8. All stockpiles will be covered with tarps or plastic sheeting. 9. Speeds on unpaved roads will be reduced below 15 miles per hour. 10. All haul trucks that carry contents subject to airborne dispersal will be covered. 11. All access points to the site used by haul trucks will be kept clean during site earthwork. 12. Exposed surfaces will be watered as needed. 13. All access points used by haul trucks will be kept clean during earthwork. 14. Electricity from power poles rather than temporary diesel or gasoline generators will be used to the extent available. 15. As needed, campus outdoor activities in the site vicinity will be limited during high-dust and other heavy construction activities.	amount, the potential remaining impact is considered significant.

	Potential Environmental Impact	Mitigation Measures	Level of Impact After Mitigation
		16. Throughout the construction period, the ventilation systems in existing student residence halls adjacent to the project site will be tested and as needed, put on a more frequent maintenance schedule to ensure that they are functioning properly and providing proper ventilation 17. During construction of the parking structure, disturbed areas within the construction site will be watered every 3 hours. Furthermore, the University will continue to: 1. Include in all construction contracts the requirement to use 2010 and newer diesel haul trucks (e.g., material delivery trucks and soil import/export). In the event that that 2010 model year or newer diesel trucks cannot be obtained, provide documentation as information becomes available and use trucks that meet EPA 2007 model year NOx emissions requirements. 2. Include in all construction contracts the requirement that all off-road diesel-powered construction equipment greater than 50 hp shall meet Tier 4 off-road emission standards at a minimum. In addition, if not already supplied with a factory-equipped diesel particulate filter, all construction equipment shall be outfitted with BACT devices certified by CARB. Any emissions control device used by the contractor shall achieve emissions reductions that are no less than what could be achieved by a Level 3 diesel emissions control strategy for a similarly sized engine as defined by CARB regulations. In addition, construction equipment shall incorporate, where feasible,	

	Potential Environmental Impact	Mitigation Measures	Level of Impact After Mitigation
		emissions savings technology such as hybrid drives and specific fuel economy standards. In the event that any equipment required under this mitigation measure is not available, provide documentation as information becomes available. A copy of each unit's certified tier specification, BACT documentation, and CARB or SCAQMD operating permit at the time of mobilization of each applicable unit of equipment shall be provided.	

1.0 Introduction

Purpose of the EIR

This Environmental Impact Report (EIR) has been prepared to evaluate the environmental effects of the proposed California State University, Los Angeles (Cal State LA) North Campus project. According to the CEQA Guidelines, an "EIR is an informational document which will inform public agencies, decision makers, and the public generally of the significant environmental effects of a project on the environment, identify possible ways to minimize the significant effects, and describe alternatives to the project." This Final EIR is an informational document to be used by decision makers, public agencies, and the general public. It is not a policy document of Cal State LA.

The EIR will be used by Cal State LA in assessing impacts of the proposed project. During the project implementation, mitigation measures identified in the EIR may be applied to the project by Cal State LA and/or other involved agencies.

Legal Requirements and Environmental Process

This EIR has been prepared in accordance with the California Environmental Quality Act of 1970 (Public Resources Code, Section 21000 et seq.) and the Guidelines for Implementation of the California Environmental Quality Act (CEQA Guidelines) published by the Public Resources Agency of the State of California (California Code of Regulations, Title 14, Section 15000 et seq.), and in accordance with the CSU CEQA Guidelines. The Board of Trustees of the California State University is the lead agency for this EIR, as defined in Section 21067 of CEQA.

Notice of Preparation and Initial Study

Pursuant to CEQA and the CEQA Guidelines, an Initial Study was prepared for the North Campus project. The Initial Study concluded that the project might have a significant effect on the environment with respect to traffic, air quality and greenhouse gases, utilities and service systems, aesthetics, and short-term construction effects which are addressed in the Draft EIR.

A Notice of Preparation (NOP) for this EIR was issued by the University on November 15, 2016 in accordance with the requirements of the CEQA Guidelines, Sections 15082(a) and 15375. The NOP indicated that an EIR was being prepared and invited comments on the project from the public and public agencies. The University also held a public meeting on December 6, 2016 to receive comments on the Initial Study. No comments were received at the meeting.

The NOP, Initial Study, and the comment letters received in response to the NOP are included in Appendix A of the Draft EIR. All other reference documents cited in the EIR are on file with Cal State LA Planning, Design and Construction, 5151 State University Drive, Los Angeles, CA 90032.

Draft EIR Public Review and Comment

The Draft EIR was circulated for a 45-day public review from March 3, 2017 to April 17, 2017. The public was invited to comment in writing on the information contained in the document. Persons and agencies commenting were encouraged to provide information that they believed was missing from the Draft EIR, or to identify where the information could be obtained. The University also held a public meeting on March 21, 2017 to receive comments on the Draft EIR. No comments about the Draft EIR were received at the meeting.

Final EIR

Appropriate revisions to the Draft EIR in response to written comments and information received are identified by shading the clarified or updated text in this Final EIR, as illustrated in this sentence.

Intended Uses of the EIR

This EIR will be used by the CSU Board of Trustees and the University to provide information necessary for environmental review of actions and approvals for the proposed North Campus project. These actions include:

Lead Agency

The Board of Trustees of the California State University

- Approval of Campus Master Plan revision
- Approval of student housing, parking structure, and sport and recreation fields schematic plans
- Approval of public-private partnership for use of training soccer field
- Others, as may be necessary

Other Public Agencies

Implementation of the project may also involve actions of other agencies, which may including the following as applicable:

- State Fire Marshal
  Facility fire safety review and approval

- City of Los Angeles Department of Water and Power
  Approval of increase in quantity or new water connections

- City of Los Angeles Sanitation (LASAN)
  Approval of increase in quantity or new sewer connections

- Regional Water Quality Control Board
  Compliance with NPDES permit

- Others, as may be necessary

Public Review and Comment

The Draft EIR will be circulated for a 45-day public review period. The public is invited to comment in writing on the information contained in this document. Persons and agencies commenting are encouraged to provide information that they believe was missing from the Draft EIR, or to identify where the information could be obtained. All comment letters, and oral comments received at the public meeting on the Draft EIR that will be held by the University, will be responded to in writing, and the comment letters, together with the responses to those comments, will be incorporated into the Final EIR.

Contact Person

The primary contact person regarding information presented in the Draft EIR is Barbara Queen, Director, Planning, Design and Construction, 5151 State University Drive, Los Angeles, CA 90032; fax: (323) 343-5788; email: bqueen@calstatela.edu.

2.0 Project Description

Proposed Project

The proposed North Campus project provides for new student housing facilities, new sport and recreation fields, and a parking structure within the northern portion of the California State University, Los Angeles (Cal State LA) campus (see Figure 1). The project's approximately 18.5-acre site is comprised of an existing sports field north of Paseo Rancho Castilla (North Field) and surface parking lots.

Student Housing

The student housing facilities will provide 1,500 beds for the University's freshmen and sophomore students, as well as an associated dining facility. The student residence hall is anticipated to be a winged five-story building with internal courtyards, and the adjacent dining hall will be a single-story facility. Students living in the residence hall will not be allowed to have cars on campus. The student housing facilities are anticipated to be completed in time for the new academic year starting in Fall 2021.

Soccer Fields

North Field: The existing North Field will be upgraded, including installation of a natural grass turf. A retaining wall needed to ensure that the surface of the field is uniformly even, will also be provided. No lighting will be provided at the field. The North Field will include an approximately 30,000 square-foot facility with sports fitness rooms, locker rooms, administrative rooms, and other amenities for the soccer players training at the field. The North Field is anticipated to be used as a practice field by a major league soccer team, and by the University students when not in use by the soccer team. As this is a practice field, no spectators will be present and no bleachers are therefore provided. Small surface parking for bicycles and vehicles for players and staff will be provided along western edge of the field. The North Field is anticipated to be in daily use from 8 am to 8 pm, and the training facility is anticipated to be in use from 8 am until 9 pm. The North Field improvements are anticipated to be completed in 2017.

South Fields: The existing surface parking lots immediately south across Rancho Paseo Castilla will be replaced with two new sport and recreation fields. These South Fields will be used for practice by the University students, including students living in the existing and proposed new student residence halls on the site, and will support the Athletics Department programs. The fields will be lighted, and one of the new fields will be furnished with natural grass turf, and the other with an artificial turf. Since these are training and recreation fields for the University students, there will be no spectators and no bleachers are therefore provided. Small surface parking for bicycles and vehicles for student players and staff will be provided along western edge of the fields.

Parking Structure

The displaced surface parking will be accommodated in a new parking structure located next to the existing Parking Structure C, on the site that is currently used as surface parking lots. The four to five-level parking structure will provide approximately 1,650 parking spaces, including up to 100 new parking spaces. The parking structure may also provide space for long-term storage of cars by University students. The structure is anticipated to be completed by Fall 2019.

Figure 1 illustrates the project's location and Figure 2 illustrates a conceptual plan for the project's facilities.

North Campus Project Location
Figure 1

Sources: Esri, HERE, DeLorme, USGS, Intermap, INCREMENT P, NRCan, Esri Japan, METI, Esri China (Hong Kong), Esri Korea, Esri (Thailand), MapmyIndia, NGCC, © OpenStreetMap contributors, and the GIS User Community

North Campus Project Conceptual Plan
Figure 2

Source: Cal State LA 2016.

Project Objectives

The primary project objectives are to:

- Enhance the provision of student housing on campus to help accommodate the strong student demand for on-campus housing
- Enhance the provision of student housing on campus since living on campus increases students' academic success and improves graduation rates
- Provide student housing at appropriate locations to create a sense of place and an overall identity representing the student residential community on campus

- Provide needed sport and recreation facilities for University students, including students living on campus

- Provide opportunities for students to access research, scholarship, internship, and job opportunities with a professional sports organization; opportunities to use the state-of-the-art soccer training facility by campus student athletes to advance the University's athletic and educational goals; and opportunities for additional resources to support University programs, including the development of a Sports Management degree program

Project Location

The project site is surrounded by the Cal State LA campus facilities, including existing student housing to the west, surface parking and parking structure south of Paseo Rancho Castilla, and the Long Beach freeway (I-710) to the east (see Figure 1 and Figure 2). The closest residential uses to this portion of the campus are located to the north, between East Valley Boulevard and Paseo Rancho Castilla.

Project Actions

The following actions are anticipated to be required for the project:

- CSU Board of Trustees
  Approval of Campus Master Plan Revision
  Approval of student housing, parking structure, and sport and recreation fields schematic plans
  Approval of public-private partnership for use of training soccer field
  Others, as may be necessary

- State Fire Marshal
  Facility fire safety review and approval

- City of Los Angeles Department of Water and Power
  Approval of increase in quantity and/or new water connections

- City of Los Angeles Sanitation (LASAN)
  Approval of increase in quantity and/or new sewer connections

- Regional Water Quality Control Board
  Compliance with NPDES permit

- Others, as may be necessary

3.0 Environmental Impact Analysis

This section of the EIR examines potentially significant effects associated with the Cal State LA North Campus project as identified through the NOP process (see Section 1.0 and Appendix A) and identifies mitigation measures to avoid or substantially reduce impacts found to be potentially significant in the EIR analysis. Each environmental issue for which the Initial Study (see Appendix A) identified a potentially significant impact is discussed in the following manner:

Environmental Setting describes the existing environmental conditions in the vicinity of the project as it exists before the commencement of the project to provide a baseline for comparing "before the project" and "after the project" environmental conditions.

Impact Criteria defines and lists specific criteria used to determine whether an impact is considered to be potentially significant. Appendix G of the CEQA Guidelines; applicable local, State, federal or other standards; and officially established thresholds of significance are the major sources used in crafting criteria appropriate to the specifics of a project, since "….an ironclad definition of significant effect is not always possible because the significance of an activity may vary with the setting" (CEQA Guidelines Section 15064[b]). Principally, "… a substantial, or potentially substantial, adverse change in any of the physical conditions within an area affected by the project, including land, air, water, flora, fauna, ambient noise, and objects of historic and aesthetic significance" constitutes a significant impact (CEQA Guidelines Section 15382).

Environmental Impact presents evidence, based to the extent possible on scientific and factual data, about the cause and effect relationship between the project and potential changes in the environment. The exact magnitude, duration, extent, frequency, range or other parameters of a potential impact are ascertained to the extent possible to provide facts in support of finding the impact to be or not to be significant. In determining whether impacts may be significant, all the potential effects, including direct effects, reasonably foreseeable indirect effects, and considerable contributions to cumulative effects, are considered. If, after thorough investigation, a particular impact is too speculative for evaluation, that conclusion is noted (CEQA Guidelines Section 15145).

Mitigation Measures identify measures that can reduce or avoid the potentially significant impact identified in the EIR analysis. Standard existing regulations, requirements, and procedures applicable to the project are considered a part of the existing regulatory environment. Mitigation measures are those feasible, project-specific measures that may be needed in addition to compliance with existing regulations and requirements, in order to reduce significant impacts. Mitigation, in addition to measures that the lead agency will implement, can also include measures that are within the responsibility and jurisdiction of another public agency (CEQA Guidelines Section 15091[a][2]).

Level of Impact After Mitigation indicates what effect remains after application of mitigation measures, and whether the remaining effect is considered significant. When these impacts, even with the inclusion of mitigation measures, cannot be mitigated to a level considered less than significant, they are identified as "unavoidable significant impacts." To approve a project with significant unavoidable impacts, the lead agency must adopt a Statement of Overriding Considerations. In adopting such a statement, the lead agency finds that it has reviewed the EIR, has balanced the benefits of the project against its significant effects, and has concluded that the benefits of the project outweigh the unavoidable adverse environmental effects, and thus, the adverse environmental effects may be considered "acceptable" (CEQA Guidelines Section 15093 [a]).

3.1 Aesthetics

Environmental Setting

Currently the North Campus project site is comprised of an existing sports field north of Paseo Rancho Castilla (North Field) and surface parking lots. The existing student residence halls, parking structure (Parking Structure C) and surface parking lots adjoin the site to the west. The closest residential uses to the site are located to the north of the campus across Paseo Rancho Castilla, and across from the existing North Field.

Impact Criteria

The impact is considered to be significant if the project will substantially degrade the existing visual character or quality of the project site or its surroundings or create a new source of substantial light or glare which would adversely affect day or nighttime views in the area.

Environmental Impact

The North Campus project facilities will provide student housing with 1,500 beds with an associated dining facility, a soccer training field with a small training facility, new sport and recreation fields, and a parking structure which will accommodate surface parking that will be displaced by the project (see Figure 2). The student residence hall is anticipated to be five-story tall, and the dining commons will be a single-story facility.

Visual Character

The northern portion of the Cal State LA campus, including the project site, is located in a developed urban area that does not provide scenic vistas, and the campus is not located within a State scenic highway. The proposed parking structure will fill in the existing surface parking lot next to the existing parking facility, with compatible design and visual character. The proposed student housing and South Fields will replace existing surface parking lots resulting in an improved visual character of the north campus area that complements and is compatible with the existing student housing clustered immediately west of the proposed new South Fields sport and recreation fields. Merging the new student housing with the existing student residence halls will create a larger campus residential community that includes housing, dining, and recreation. It will also create a visual character and an overall image representing the student residential community. Variations in height between the existing two to three-story student residence halls and the project’s five-story residence halls together with variations in architectural styles, and provision of open space in form of new soccer fields will provide visual articulation and enrich the visual character and image of this greater student community within the north campus area, and improve the overall visual character of the site.

Light and Glare

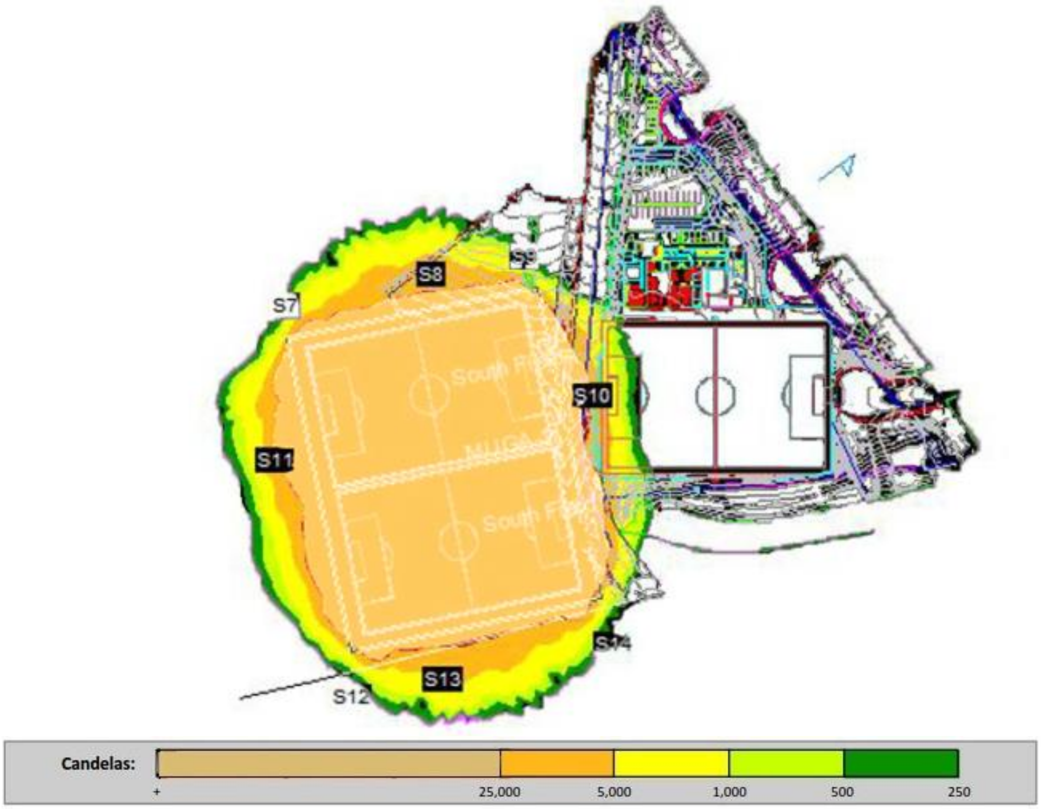
There will be no lighting provided at the North Field. The new South Fields sport and recreation fields will include lighting for players and students training at those fields.

The project site and the surrounding area are currently exposed to urban nighttime lighting. Artificial light sources at the site and in the surrounding area include security lights associated with the campus and nearby residential uses, parking lot lighting, light emanating from building interiors, and illuminated automobile headlights. The South Fields are surrounded by the campus facilities to the south and west, the existing North Field to the north, and the I-710 freeway to the east. The closest sensitive uses are single family homes located to the north of the campus, on the southern cul-de-sacs of Highbury Avenue, Vandalia Avenue, and Lillyvale Avenue. These homes are separated from the South Fields by the Paseo Rancho Castilla roadway and the campus' North Field.

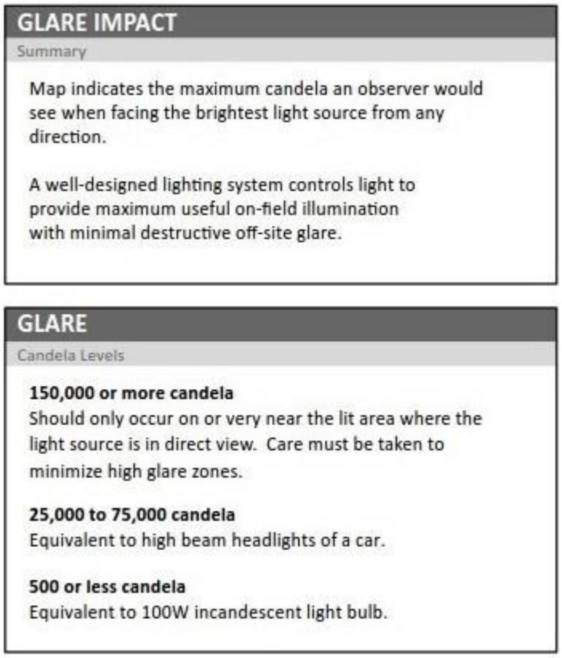
The South Fields lighting will be in compliance with the National Collegiate Athletic Association (NCAA) Best Lighting Practices, including the field dimensions that meet the recommended sizing guidelines, with all poles at least 20 feet from the sideline, and poles located between the penalty line and the goal line with additional poles at midfield. The design of the fields lighting takes into account all available methods for reducing lighting spillover and glare, including: (1) the field lighting poles arranged as close to the field as possible to focus the light directly onto the field; (2) poles ranging from 80 and 90 feet in height to minimize off-site glare since shorter poles produce more glare for the surrounding area than taller poles; and (3) the lighting system that includes long visors for maximum shielding, less fixtures, and appropriate mounting heights to ensure steep downward aiming of light into the fields and away from the surrounding area.

To quantify the potential impact associated with the South Fields lighting, a photometric analysis was conducted by Musco Lighting (see Appendix B). The analysis shows that the light from the South Fields will be confined within 100 feet of the fields, and therefore, will not affect the closest residential units located to the north of the campus, across Paseo Rancho Castilla and across from the North Field. Similarly, as indicated in Figure 3, South Sport and Recreation Fields Glare Impact Diagram, as with the lighting, glare from those field will be confined within the campus area surrounding the fields and will not affect these closest residential units.

South Sport and Recreation Fields Glare Impact Diagram
Figure 3



Source: Musco Lighting, February 2016



GLARE IMPACT

Summary

Map indicates the maximum candela an observer would see when facing the brightest light source from any direction.

A well-designed lighting system controls light to provide maximum useful on-field illumination with minimal destructive off-site glare.

GLARE

Candela Levels

150,000 or more candela
Should only occur on or very near the lit area where the light source is in direct view. Care must be taken to minimize high glare zones.

25,000 to 75,000 candela
Equivalent to high beam headlights of a car.

500 or less candela
Equivalent to 100W incandescent light bulb.

With the South Fields being designed in compliance with NCAA Best Lighting Practices, the new sport and recreation fields will not create a new source of substantial light or glare that would adversely affect day or nighttime views in the area. Therefore, the impact associated with the project's South Fields sport and recreation fields light and glare will be less than significant.

Mitigation Measures

The project will result in a beneficial effect of improving the visual character of the site, which currently consists of surface parking and an unimproved sport field. The project's new South Fields sport and recreation fields lighting will be contained within the campus area surrounding the fields, resulting in a less than significant light and glare impact. No mitigation is required.

Level of Impact After Mitigation

The project will result in a beneficial effect of improving the visual character of the site, and the project's light and glare impact will be less than significant; no mitigation is required.

3.2 Air Quality and Greenhouse Gases (GHG)

This section examines the potential long-term air quality impacts, including greenhouse gases (GHG), associated with the North Campus project. Short-term impacts from construction of the project are discussed in Section 3.7, Construction Effects.

Environmental Setting

The North Campus project on the campus of Cal State LA is located within the South Coast Air Basin. The non-desert portion of the Basin where the campus is located continues to exceed Federal and State ambient air quality standards for ozone (O_3), particulate matter (PM_{10}), and ultra-fine particulate matter ($PM_{2.5}$).

Air Pollution Control Efforts

Both the federal and state governments have set health-based ambient air quality standards for the following 6 pollutants:

- Sulfur dioxide (SO_2)
- Lead (Pb)
- Carbon monoxide (CO)
- Fine particulate matter (PM_{10})
- Ultrafine particular matter ($PM_{2.5}$)
- Nitrogen dioxide (NO_2)
- Ozone (O_3)

Standards for these pollutants have been designed to protect the most sensitive persons from illness or discomfort with a margin of safety. The California standards are more stringent than federal standards, especially in the case of PM_{10} and SO_2.

Table 1 outlines current federal and state ambient air quality standards, and sources and health effects of these pollutants. Additional information about health effects associated with each pollutant is provided in the South Coast Air Quality Management District (SCAQMD) CEQA Air Quality Handbook, which is hereby incorporated by reference.

Table 1
Air Pollution Standards, Sources, and Effects

Air Pollutant	State Standards	National Standards (Primary)	Sources	Health Effect
Ozone (O_3)	0.07 ppm, 8-hr. avg. 0.09 ppm, 1-hr. avg.	0.070 ppm, 8-hr. avg.	Atmospheric reaction of organic gases with nitrogen oxides in sunlight.	Aggravation of respiratory and cardiovascular diseases, irritation of eyes, impairment of cardiopulmonary function, plant leaf injury.
Respirable Particulate Matter (PM_{10})	50 $\mu g/m^3$, 24-hr. avg. 20 $\mu g/m^3$, AAM	150 $\mu g/m^3$, 24-hr. avg.	Stationary combustion of solid fuels, construction activities, industrial processes, industrial chemical reactions.	Reduced lung function, aggravation of the effects of gaseous pollutants, aggravation of respiratory and cardio-respiratory diseases, increased coughing and chest discomfort, soiling, reduced visibility.
Particulate Matter less than 2.5 Microns in Diameter ($PM_{2.5}$)	12 $\mu g/m^3$, AAM	35 $\mu g/m^3$, 24-hr. avg. 12 $\mu g/m^3$, AAM	Combustion from mobile and stationary sources, atmospheric chemical reactions.	Health problems, including asthma, bronchitis, acute and chronic respiratory symptoms such as shortness of breath and painful breathing, and premature deaths.
Carbon Monoxide (CO)	9.0 ppm, 8-hr. avg. 20 ppm, 1-hr. avg.	9 ppm, 8-hr. avg. 35 ppm, 1-hr. avg.	Incomplete combustion of fuels and other carbon-containing substances such as motor vehicle exhaust, natural events, such as decomposition of organic matter.	Reduced tolerance for exercise, impairment of mental function, impairment of fetal development, death at high levels of exposure, aggravation of some heart diseases (angina).
Nitrogen Dioxide (NO_2)	0.18 ppm, 1-hr. avg. 0.03 ppm, AAM	0.10 ppm, 1-hr. avg. 0.053 ppm, AAM	Motor vehicle exhaust, high-temperature stationary combustion, atmospheric reactions.	Aggravation of respiratory illness, reduced visibility, reduced plant growth, formation of acid rain.
Sulfur Dioxide (SO_2)	0.04 ppm, 24-hr avg. 0.25 ppm 1-hr. avg.	0.03 ppm, AAM 0.14 ppm, 24-hr. avg. 75 ppb, 1-hr. avg.	Combustion of sulfur-containing fossil fuels, smelting of sulfur-bearing metal ores, industrial processes.	Aggravation of respiratory diseases (asthma, emphysema), reduced lung function, irritation of eyes, reduced visibility, plant injury, deterioration of metals, textiles, leather, finishes, coating, etc.
Lead (Pb)	1.5 $\mu g/m^3$, 30 day avg.	0.15 $\mu g/m^3$, calendar quarter	Contaminated soil.	Increased body burden, impairment of blood formation and nerve conduction.
Visibility-Reducing Particles	Extinction coefficient of 0.23 per km, visibility of 10 miles or more due to particles when relative humidity is less than 70%..	No Federal Standards		Visibility impairment on days when relative humidity is less than 70%.

Notes:

ppm = parts per million by volume

$\mu g/m^3$ = micrograms per cubic meter

AAM = annual arithmetic mean

Source: California Air Resources Board, https://www.arb.ca.gov/research/aaqs/aaqs2.pdf

Monitored Air Quality

The South Coast Air Quality Management District (SCAQMD) monitors air quality throughout the Basin at various locations. The SCAQMD's Central Los Angeles monitoring station No. 087, located at 1630 North Main Street in Los Angeles, is the closest station to the North Campus project area. The number of days that State and/or Federal ambient air quality standards were exceeded at this location are shown in Table 2.

Table 2
Federal and State Ozone and Particulate Matter Exceedances at Central Los Angeles Monitoring Station

Year	Ozone (O_3)			Suspended Particulates (PM_{10})		Fine Particulates ($PM_{2.5}$)	
	Days Federal 8-hour Standard Exceeded	Days State 8-hour Standard Exceeded	Days State 1-Hour Standard Exceeded	% of Samples Exceeding Federal 24-hour Standard	% of Samples Exceeding State 24-hour Standard	% of Samples Exceeding Federal Standard	% of Samples Exceeding State Standard
2010	1	1	1	0	0.0	0.6	0.6
2011	0	0	0	0	2.0	1.2	1.2
2012	1	2	0	0	6.7	1.2	1.2
2013	0	0	0	0	2.0	0.3	0.3
2014	2	7	3	0	5.2	1.8	1.8
2015	6	6	2	0	8.0	2.0	2.0

Note: ppm = parts per million parts of air, by volume
ppb = parts per billion
Source: http://www.aqmd.gov/home/library/air-quality-data-studies/historical-data-by-year
Data for 2010-2015 from Station No. 087.

Impact Criteria

The South Coast Air Quality Management District (SCAQMD) has established thresholds for certain criteria pollutants for projects within the South Coast Air Basin. SCAQMD considers projects in the South Coast Air Basin that exceed any of these emission thresholds to have a significant air quality impact. Thresholds for operation-related emissions are shown in Table 3.

Table 3
SCAQMD Long Term Operational Thresholds

Criteria Pollutant	Pounds per Day
Reactive Organic Gases (ROG)	55
Oxides of Nitrogen (NO_x)	55
Carbon Monoxide (CO)	550
Fine Particulate Matter (PM_{10})	150
Ultrafine Particulate Matter ($PM_{2.5}$)	55
Source: South Coast Air Quality Management District http://www.aqmd.gov/docs/default-source/ceqa/handbook/scaqmd-air-quality-significance-thresholds.pdf	

The SCAQMD adopted a "Policy on Global Warming and Stratospheric Ozone Depletion" in 1990. The policy commits the SCAQMD to consider global impacts in rulemaking and in drafting revisions to the Air Quality Management Plan. In 1992, the SCAQMD Governing Board reaffirmed this policy and adopted amendments to the policy.

In 2008, the SCAQMD Governing Board adopted an interim greenhouse gas (GHG) significance threshold for stationary source/industrial projects where the SCAQMD is the lead agency. However, SCAQMD has yet to adopt a GHG significance threshold for land use development projects (e.g., residential/commercial projects) and has formed a GHG Significance Threshold Working Group to further evaluate potential GHG significance thresholds[1] and provide guidance to local lead agencies on determining significance for GHG emissions in their CEQA documents. Members of the working group include government agencies implementing CEQA and representatives from various stakeholder groups. The working group is currently discussing multiple methodologies for determining project significance. These methodologies include categorical exemptions, consistency with regional GHG budgets in approved plans, a numerical threshold, performance standards, and emissions offsets. Also, the State Office of Planning and Research (OPR) is currently finalizing a Technical Advisory to provide guidance on specific topics related to climate action planning and the use of plans for the reduction of greenhouse gases in a CEQA analysis [2].

Environmental Impact

The North Campus project provides for new student housing facilities with 1,500 beds and the associated dining facility, new and upgraded sport and recreation fields, and a parking structure within the northern portion of the campus.

The project's long-term operational emissions were calculated and are summarized in Table 4. A "worst-case" scenario is used to analyze these long-term air quality impacts. Area ROG and NOx

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[1] South Coast Air Quality Management District, Greenhouse Gases CEQA Significance Thresholds, http://www.aqmd.gov/home/regulations/ceqa/air-quality-analysis-handbook/ghg-significance-thresholds

[2] The Governor's Office of Planning & Research, CEQA and Climate Change https://www.opr.ca.gov/s_ceqaandclimatechange.php

emissions were calculated for both winter and summer with the higher emissions estimate reported and GHG emissions were calculated on an annual basis, using the CalEEMod model Version 2016.3.1.

Table 4
Project Operational Emissions, Year 2021

	Reactive Organic Gases (ROG) pounds/day	**Oxides of Nitrogen (NO_X) pounds/day**	**Carbon Monoxide (CO) pounds/day**	**Respirable Particulate Matter (PM_{10}) pounds/day**	**Ultrafine Particulate Matter ($PM_{2.5}$) pounds/day**	**GHG (CO_{2e}) metric tons/year**
Area Sources*	12	1	41	neg.	neg.	639
Energy*	neg.	3	2	neg.	neg.	2,336
Vehicular Emissions	1	4	11	3	1	9
Subtotal	13	8	54	3	1	2,345
Vehicular Trips/VMT Reduction	-3	-16	-46	-13	-4	-2,587
Project's Net Emissions	**10**	**-8**	**8**	**-10**	**-3**	**-242**
SCAQMD Threshold	55	55	550	150	55	-
Exceeds Threshold?	**No**	**No**	**No**	**No**	**No**	**-**
Note: * Average of three student beds per one dormitory unit.						

As shown, the North Campus project will result in an overall reduction in long-term air pollutant emissions as a result of providing additional student housing with 1,500 beds. As discussed in Section 3.3, Traffic and Circulation, this student housing will result in a reduction of approximately 1,736 vehicular trips and 25,801 vehicle miles traveled (VMTs) per day from student commute trips. A reduction of approximately 242 metric tons of CO_{2e} per year will result from the elimination of these commute trips throughout an academic year. Similarly, the provision of on-campus housing will result in a net reduction in NOx, PM_{10} and $PM_{2.5}$ emissions, and a substantial reduction in CO and ROG emissions.

The energy source emissions are primarily emissions associated with the use of energy for heating and cooling of the new facilities on campus. These emissions are anticipated to be substantially lower in comparison with the "worst case" estimates summarized in Table 4, since the new facilities will be equipped with energy-efficient cooling and heating systems, lighting systems, equipment, and appliances. In addition, the incorporation of the following features into the project's design and operations to the extent feasible will further reduce stationary emissions and GHG: installing solar panels on roofs to supply electricity for air conditioning; using lightcolored roofing materials to deflect heat from buildings; and using double-paned glass in windows to reduce thermal loss in buildings. Due to the proximity of the student housing facility to I-710 freeway, the design of the student housing will include, but not be limited to: (1). incorporating air filtration systems with filters meeting or exceeding the ASHRAE 52.2 Minimum Efficiency Reporting Value (MERV) of 11; (2) locating open space areas (e.g., courtyards, patios, balconies) as far from the freeway as possible; (3) planting vegetation between student housing and the freeway; (4) designing the floor plan to minimize operable windows and building entries along the freeway side of the building; and (5) using mechanical and ventilation systems with intakes located as far from the freeway as possible.

As shown, the North Campus project - that includes provision of on-campus student housing, will result in an overall beneficial impact on air quality as it will result in a net reduction in NOx, $PM_{10,}$ and $PM_{2.5}$ emissions, substantial reduction in CO and NOx emissions, and a net reduction in GHG emissions.

Mitigation Measures

Impact will be beneficial; no mitigation is required.

Level of Impact After Mitigation

Impact will be beneficial; no mitigation is required.

3.3 Traffic and Circulation

This section addresses traffic and circulation issues associated with the North Campus project. A transportation impact study was prepared for the project in December 2016. The study findings are summarized below, and the study is included in Appendix B of this EIR.

Environmental Setting

The Cal State LA campus is generally bordered by Long Beach Freeway (I-710) to the east, Paseo Rancho Castilla to the west, Santa Monica Freeway/San Bernardino Freeway (I-10) to the south, and Paseo Rancho Castilla to the north. The North Campus project site is located in the northeastern area of the Cal State LA campus.

Roadway Network

Primary regional access to the Cal State LA campus is provided by I-710 and I-10. The major arterials providing regional and sub-regional access to the project include Valley Boulevard and Eastern Avenue. The following is a brief description of the major roadways:

I-710 Freeway generally runs in the north-south direction and is located along the eastern boundary of the Cal State LA campus. In the vicinity of the study area, I-710 provides three travel lanes in each direction. Access to and from I-710 is available via interchanges at Valley Boulevard.

I-10 Freeway generally runs in the east-west direction and is located along the southern boundary of the Cal State LA campus. In the vicinity of the study area, I-10 provides four travel lanes in each direction. Access to and from I-10 is available via interchanges at Campus Road, Ramona Boulevard and Eastern Avenue.

Valley Boulevard is a designated “Avenue I” in the Mobility Plan, a designated “Major Highway Class II” in the General Plan Transportation Element and a designated “Major Arterial” in the City of Alhambra General Plan. It is a four-lane roadway that runs in the northeast-southwest direction before curving to the east-west direction. It is located north of the Cal State LA campus. Parking is generally provided along both sides of the street within the study area.

Paseo Rancho Castilla is a designated “Local Street” in the Mobility Plan and a designated “Secondary Highway” in the General Plan Transportation Element. It is a two-lane roadway that runs in the northeast-southwest direction before curving to the east-west direction and is located along the northern boundary of the project site. Parking is generally not provided along the street within the study area.

Circle Drive is not identified in the Mobility Plan and General Plan Transportation Element. It is a two-lane roadway that runs in the east-west and north- south direction, provides internal circulation within Cal State LA and is located along the southern boundary of the project site. Parking is generally not provided along the street within the study area.

Eastern Avenue is not identified in the Mobility Plan and General Plan Transportation Element. It is a four-lane roadway that runs in the east-west direction between Worth Street and State University Drive and runs in the north-south direction south of State University Drive. It is located west of the project site and parking is generally provided along the north side of the street north of State University Drive and along the west side of the street south of Ramona Boulevard within the study area.

Ramona Boulevard is not identified in the Mobility Plan and General Plan Transportation Element. It is a four-lane roadway that runs in the east-west direction and is located south of the project site. Parking is generally not provided along the street within the study area.

Campus Road is a designated “Collector Street” in the Mobility Plan and a designated “Secondary Highway” in the General Plan Transportation Element. It is a two to four-lane roadway that runs in the north-south direction and is located south of the project site. Parking is generally not provided along the street within the study area.

Mariondale Avenue is a designated “Avenue II” in the Mobility Plan and designated “Local Street” in the General Plan Transportation Element. It is a two-lane roadway that runs in north-south direction and is located along the western boundary of the project site. Parking is generally not provided along the street within the study area.

Fremont Avenue is a designated “Major Arterial” in the City of Alhambra General Plan. It is a four-lane roadway that runs in north-south direction and is located east of the project site. Parking is generally provided along the both sides of the street south of Valley Boulevard within the study area.

Transit

The study area is served by bus lines operated by Metro Foothill Transit and Alhambra Community Transit (ACT), as well as the El Sol Shuttle system. The following is a brief description of the bus lines providing service in the vicinity of the project:

- ***Metro Local 70*** – Route 70 is a local line that travels from El Monte to downtown Los Angeles via Garvey Avenue.
- ***Metro Local 71*** – Route 71 is a local line that travels from CSULA to downtown Los Angeles via Wabash Avenue and Terrace Drive.
- ***Metro Local 76*** – Route 76 is a local line that travels from El Monte to downtown Los Angeles via *Valley Boulevard*
- ***Metro Local 256*** – Route 256 is a local line that travels from Altadena to Commerce via Hill Avenue, Avenue 64 and Eastern Avenue.

- ***Metro Local 258*** – Route 258 is a local line that travels from Altadena to Paramount via Fremont Avenue, Eastern Avenue and Lake Avenue.
- ***Metro Local 487*** – Route 487 is a local line that travels from Sierra Madre Villa Station to downtown Los Angeles and El Monte Station via San Gabriel Boulevard.
- ***Metro Express 489*** – Route 487 is an express line that travels from Sierra Madre Villa Station to downtown Los Angeles and El Monte Station via San Gabriel Boulevard.
- ***Metro Local 665*** – Route 665 is a local line that travels from Glendale to Glassel Park via Verdugo Road.
- ***Metro Silver Line*** – The Silver Line is a bus rapid transit service that travels from the Harbor Gateway Transit Center to El Monte.
- ***Foothill Transit 481*** – Route 481 is a weekday peak hour express line that travels from El Monte to downtown Los Angeles.
- ***Foothill Transit 493*** – Route 493 is a weekday peak hour express line that travels from Diamond Bar to Rowland Heights and downtown Los Angeles.
- ***Foothill Transit 495*** – Route 495 is a weekday peak hour express line that travels from Industry to downtown Los Angeles.
- ***Foothill Transit 496*** – Route 496 is a weekday peak hour express line that travels from Azusa to West Covina and downtown Los Angeles.
- ***Foothill Transit 497*** – Route 497 is a weekday peak hour express line that travels from the Chino Park and Ride to downtown Los Angeles.
- ***Foothill Transit 498*** – Route 498 is a weekday peak hour express line that travels from Azusa to downtown Los Angeles.
- ***Foothill Transit 499*** – Route 499 is a weekday peak hour express line that travels from the San Dimas Park and Ride to downtown Los Angeles.
- ***Foothill Transit 699*** – Route 699 is a weekday peak hour express line that travels from Montclair to downtown Los Angeles.
- ***Foothill Transit Silver Streak*** – Silver Streak is an express line that travels from Montclair to downtown Los Angeles.
- ***ACT Blue*** – ACT Blue line is a local line that travels from the City of Alhambra Civic Center to Cal State LA.
- ***El Sol Shuttle City Terrace (ESCT)*** – ESCT is a shuttle service that travels within City Terrace via Cesar Chavez Avenue, City Terrace Drive and Eastern Avenue.

Bicycle and Pedestrian Facilities

Based on the 2010 Bicycle Plan of the City of Los Angeles Transportation Element, the existing bicycle system consists of a limited coverage of bicycle lanes (Class II) and bicycle routes (Class III). Bicycle lanes are a component of street design with dedicated striping, separating vehicular traffic from bicycle traffic. These facilities offer a safer environment for both cyclists and motorists. Bicycle routes are identified as bicycle-friendly streets where motorists and cyclists share the roadway and there is no dedicated striping of a bicycle lane. Bicycle routes are preferably located on collector and lower volume arterial streets. There are no bicycle lanes or routes currently provided within the study area.

The sidewalks that serve as routes to the project site provide adequate connectivity and widths for a comfortable and safe pedestrian environment. The sidewalks provide connectivity to pedestrian crossings at study intersections. The intersection of Mariondale Avenue & Paseo Rancho Castilla provides pedestrian facilities that limits mid-block crossings to the project site as the intersection has marked pedestrian crossings on all approaches. The intersection also provides crosswalk striping and curb ramps.

Existing Traffic Conditions

Traffic operational conditions at intersections are described in terms of Level of Service (LOS) which 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.

The intersection LOS analysis was conducted in compliance with City of Los Angeles and City of Alhambra LOS standards. Traffic counts were performed at 13 study intersection, including 10 signalized and 3 unsignalized intersections. Figure 4 illustrates the location of the project in relation to the surrounding street system and the study intersections. Existing AM and PM peak-hour turning movement data were collected at each of the study intersections. Table 5 summarizes the LOS results of the study intersections based on the Critical Movement Analysis (CMA) and Intersection Capacity Utilization (ICU) methodologies for signalized intersections and the Highway Capacity Manual (HCM 2010) method for unsignalized intersections.

Project Location and Study Intersections
Figure 4

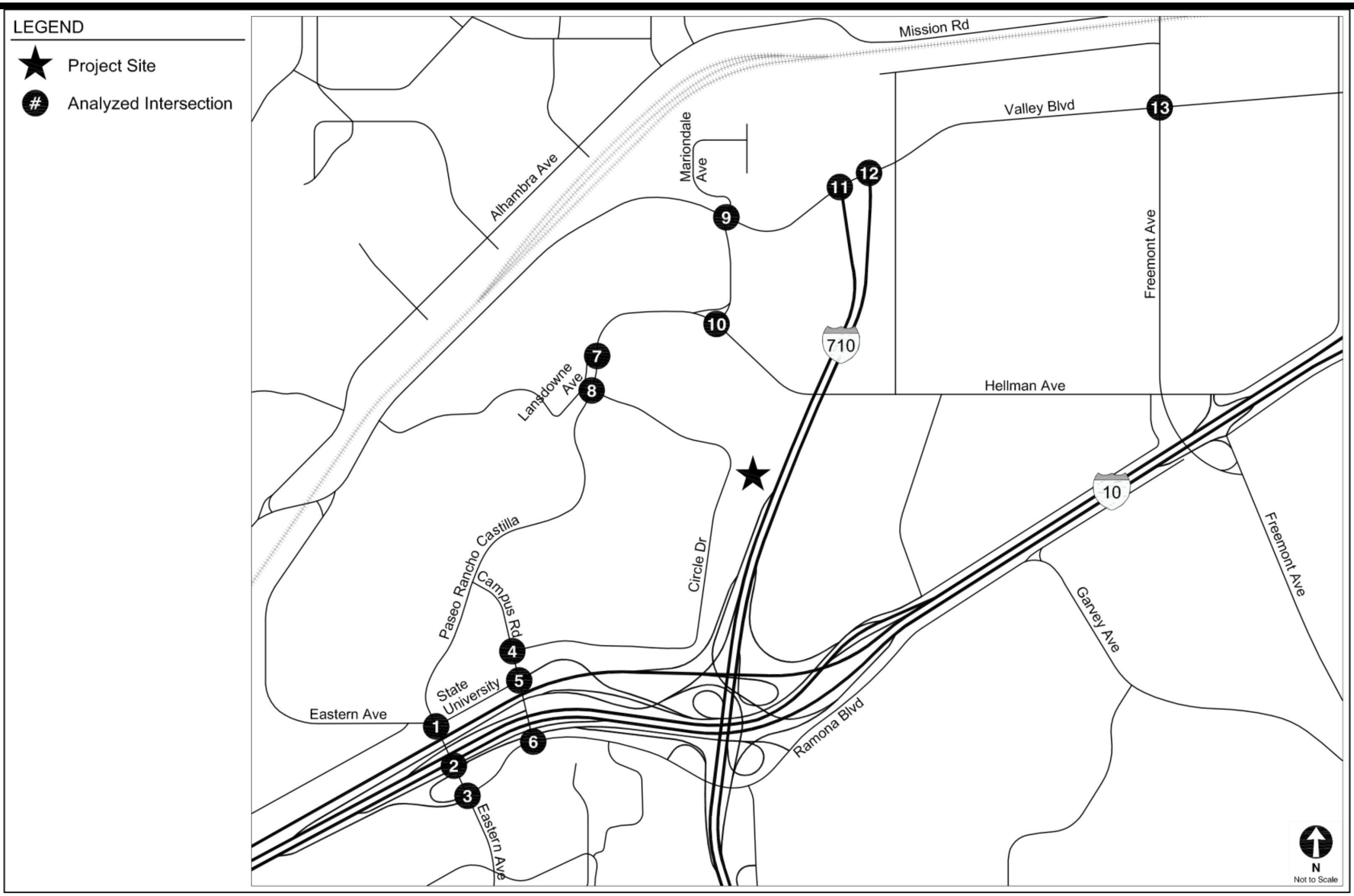

Table 5
Existing Year 2016 Intersection Peak Hour Level of Service

No.	Intersection	Peak Hour	Existing	
			V/C or Delay	LOS
1.	Paseo Rancho Castilla/Eastern Avenue & Eastern Avenue/State University Drive	AM PM	0.816 0.950	D E
2. [a]	Eastern Avenue & I-10 Eastbound On-Ramp	AM PM	0.315 0.371	A A
3. [a]	Eastern Avenue & I-10 Eastbound Ramps/Ramona Boulevard	AM PM	0.587 0.561	A A
4. [b]	Campus Road & Circle Drive	AM PM	48.3 48.3	E E
5. [a]	Campus Road & I-10 Westbound Off-Ramp/State University Drive	AM PM	0.453 0.339	A A
6.	Campus Road & Ramona Boulevard	AM PM	0.687 0.447	B A
7.	Paseo Rancho Castilla & Lansdowne Avenue	AM PM	0.242 0.319	A A
8. [b]	Paseo Rancho Castilla & Circle Drive	AM PM	14.2 14.2	B B
9.	Mariondale Avenue & Valley Boulevard	AM PM	0.447 0.486	A A
10. [b]	Mariondale Avenue & Paseo Rancho Castilla	AM PM	16.1 16.1	C C
11. [a][c]	I-710 Southbound On-Ramp & Valley Boulevard	AM PM	1.005 0.758	F C
12. [a][c]	I-710 Northbound Off-Ramp & Valley Boulevard	AM PM	0.745 0.674	C B
13. [c]	Fremont Avenue & Valley Boulevard	AM PM	1.027 0.989	F E

Note:
Delay is measured in seconds (using HCM based Synchro)
[a] Intersection shares jurisdiction with Caltrans and analyzed based on local jurisdiction methodology.
[b] Intersection is unsignalized and analyzed based on HCM 2010 methodology via Synchro.
[c] Intersection is analyzed based on City of Alhambra LOS criteria (ICU methodology)

As shown, under Existing Year 2016 conditions, 9 of the 13 study intersections are operating at LOS D or better during both the AM and PM peak hours. The following study intersections are operating at LOS E or F during either one or both the AM or PM peak hours:

- Paseo Rancho Castilla/Eastern Avenue & Eastern Avenue/State University Drive (PM)
- Campus Road & Circle Drive (AM and PM)
- I-710 Southbound On-Ramp & Valley Boulevard (AM)

- Fremont Avenue & Valley Boulevard (AM and PM)

Impact Criteria

Level of Service (LOS)

California State University: Per the California State University's guidelines, determination of project traffic impacts is based on the change in LOS for the affected intersection as follows:

- 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.

City of Los Angeles: Based on the Los Angeles Department of Transportation's (LADOT) *Traffic Study Policies and Procedures* impact criteria, LOS impact for signalized intersection within the City is considered significant if:

- An intersection operates at LOS C under the "No Project" scenario and the addition of project trips causes overall volume-to-capacity (V/C) ratio to increase by 0.04 or more;
- An intersection operates at LOS D under the "No Project" scenario and the addition of project trips causes overall V/C ratio to increase by 0.02 or more;
- An intersection operates at LOS E or F under the "No Project" scenario and the addition of project trips causes overall V/C ratio to increase by 0.01 or more.

For unsignalized study intersections, LADOT's guidelines stated that the intersections should be evaluated solely to determine the need for the installation of a traffic signal or other traffic control device, but will not be included in the impact analysis.

City of Alhambra: Based on the City of Alhambra traffic study guidelines, LOS impact is considered significant if:

- An intersection operates at LOS C under the "No Project" scenario and the addition of project trips causes overall V/C to increase by 0.04 or more;
- An intersection operates at LOS D under the "No Project" scenario and the addition of project trips causes overall V/C ratio to increase by 0.02 or more;
- An intersection operates at LOS E or F under the "No Project" scenario and the addition of project trips causes overall V/C ratio to increase by 0.01 or more.

California Department of Transportation (Caltrans): The Caltrans' *Guide for the Preparation of Traffic Impact Studies* (California Department of Transportation, December 2002) (Caltrans TIS Guide) states that Caltrans' target LOS is "at the transition between LOS C and LOS D". When that threshold has already been exceeded, the existing condition (or projected future condition) should be maintained with the addition of project traffic.

Vehicle Miles Traveled

In addition, the traffic analysis also considers vehicle miles traveled (VMT) based on Senate Bill 743 (SB 743). SB 743 will change the way in which transportation impacts are analyzed under CEQA. Under SB 743, the focus of transportation analysis shifted from driver delay to reduction of greenhouse gas emissions, creation of multimodal networks, and promotion of a mix of land uses. Measurements of transportation impacts may include vehicle miles traveled, vehicle miles traveled per capita, automobile trip generation rates, or automobile trips generated.

Environmental Impact

Project Trip Generation

The North Campus project provides for new freshmen and sophomore student housing with 1,500 beds and an associated dining facility in the northeastern portion of the campus, along Paseo Rancho Castilla, adjacent to I-710. Students living in this new on-campus residence hall will not be allowed to have cars on campus, resulting in shifting 1,500 students from commuters to dormitory students without automobiles.

The project will also provide intramural practice sport and recreation fields for internal campus use, and a practice soccer field for use by a major league soccer team that will include an approximately 30,000 square-foot facility with sports fitness rooms, locker rooms, administrative rooms, and other amenities for soccer players training at the field. The displaced parking will be accommodated in a new parking structure with approximately 1,650 spaces, including up to 100 new parking spaces. The North Campus project is anticipated to be completed by year 2021.

As shown in Table 6, the project is estimated to result in an overall net reduction in vehicular trips by shifting existing commuting students to live on campus. The project is estimated to reduce trips by 1,736 daily trips, including 134 net reduction in trips (during the AM peak hour and 115 net reduction in trips during the PM peak hour).

Table 6
Trip Generation Summary

Trip Generation Rates

Land Use	Rate	Daily	AM Peak Hour			PM Peak Hour		
			In	**Out**	**Total**	**In**	**Out**	**Total**
University/College (ITE Code 550) [a]	Per student	1.71	78%	22%	0.17	32%	68%	0.17
Student Housing [b]	Per bed	1.42	43%	57%	0.07	53%	47%	0.13
Sports Facility [c]	Per person	-	-	-	-	-	-	-

Trip Generation Estimates

Land Use	Size	Daily	AM Peak Hour			PM Peak Hour		
			In	**Out**	**Total**	**In**	**Out**	**Total**
Shift in Commuter Students [d]	1,500 students	(2,565)	(199)	(56)	(255)	(82)	(173)	(255)
Transit/Walk-In Adjustment – 15% [e]	-	*385*	*30*	*8*	*38*	*12*	*26*	*38*
New Parking Spaces [f]	100 spaces	284	6	8	14	14	12	26
Subtotal – Student Housing		**(1,896)**	**(163)**	**(40)**	**(203)**	**(56)**	**(135)**	**(191)**
Major League Soccer Field								
Players	30 persons	55	27	0	27	0	27	27
Staff	30 persons	55	27	0	27	0	14	14
Others	25 persons	50	5	10	15	20	15	35
Subtotal – Soccer Facility		**160**	**59**	**10**	**69**	**20**	**56**	**76**
Total –NET NEW PROJECT TRIPS		**(1,736)**	**(104)**	**(30)**	**(134)**	**(36)**	**(79)**	**(115)**

Note:
[a] Source: *Trip Generation, 9th Edition* (Institute of Transportation Engineers, 2012).
[b] Source: *Trip Generation Study – Private Student Housing Apartments Technical Memorandum* (Spack Consulting, April 2012)
[c] Trip generation rates based on the following assumptions:
Major League soccer players – 100% arrival during AM peak, 100% departure during PM peak, 1.1 AVR
Major League staff – 100% arrival during AM peak, 50% departure during PM peak, 1.1 AVR
Major League other – includes service vehicles and LAFC Under-12 (U-12) youth academy, 1.0 AVR
[d] Shift in commuter students to dorm students will reduce incoming/outgoing traffic to the school.
[e] Per LADOT's *Traffic Study Policies and Procedures*, the project site is located nearby transit stops, including CSULA busway station and CSULA Metrolink station, in addition to shuttle stops serving the campus and therefore a transit reduction is applied to account for transit usage.
[f]. The students living in new student housing will not be allowed to have automobiles as no further additional parking will be provided for these students. However, since the parking structure will provide 100 new parking spaces, trips equivalent to 200 dorm student daily trips are assigned to these spaces.

Existing Plus Project Conditions

Forecasted project-only traffic volumes were added to existing conditions on the existing roadway network. The Existing Plus Project intersection operating conditions for typical weekday AM and PM peak hours were studied at the 13 study intersections. As with the existing conditions without the project, the same 9 of the 13 study intersections are projected to operate at LOS D or better during both the AM and PM peak hours, and the following four intersections are anticipated to operate at LOS E or F during either the AM and/or PM peak hour:

- Paseo Rancho Castilla/Eastern Avenue & Eastern Avenue/State University Drive – LOS E during the PM peak hour
- Campus Road & Circle Drive – LOS E during both the AM and PM peak hours
- I-710 Southbound On-Ramp & Valley Boulevard – LOS F during the AM peak hour
- Fremont Avenue & Valley Boulevard – LOS F during the AM peak hour and LOS E during the PM peak hour

As summarized in Table 7, the project is not anticipated to result in a significant impact at any of the study intersections under the Existing Plus Project conditions.

Table 7
Existing Plus Project Intersection Peak Hour Level of Service

No.	Intersection	Peak Hour	Existing		Existing With Project			
			V/C or Delay	LOS	V/C or Delay	LOS	Change in V/C	Impact
1.	Paseo Rancho Castilla/Eastern Avenue & Eastern Avenue/State University Drive	AM PM	0.816 0.950	D E	0.812 0.946	D E	-0.004 -0.004	NO NO
2. [a]	Eastern Avenue & I-10 Eastbound On-Ramp	AM PM	0.315 0.371	A A	0.310 0.369	A A	-0.005 -0.002	NO NO
3. [a]	Eastern Avenue & I-10 Eastbound Ramps/Ramona Boulevard	AM PM	0.587 0.561	A A	0.581 0.556	A A	-0.006 -0.005	NO NO
4. [b]	Campus Road & Circle Drive	AM PM	48.3 48.3	E E	47.8 47.8	E E	-- --	-- --
5. [a]	Campus Road & I-10 Westbound Off-Ramp/State University Drive	AM PM	0.453 0.339	A A	0.447 0.329	A A	-0.006 -0.010	NO NO
6.	Campus Road & Ramona Boulevard	AM PM	0.687 0.447	B A	0.680 0.438	B A	-0.007 -0.009	NO NO
7.	Paseo Rancho Castilla & Lansdowne Avenue	AM PM	0.242 0.319	A A	0.240 0.311	A A	-0.002 -0.008	NO NO
8. [b]	Paseo Rancho Castilla & Circle Drive	AM PM	14.2 14.2	B B	13.8 13.8	B B	-- --	-- --
9.	Mariondale Avenue & Valley Boulevard	AM PM	0.447 0.486	A A	0.411 0.463	A A	-0.036 -0.023	NO NO

10. [b]	Mariondale Avenue & Paseo Rancho Castilla	AM PM	16.1 16.1	C C	14.9 14.9	B B	-- --	-- --
11. [a][c]	I-710 Southbound On-Ramp & Valley Boulevard	AM PM	1.005 0.758	F C	1.002 0.748	F C	-0.003 -0.010	NO NO
12. [a][c]	I-710 Northbound Off-Ramp & Valley Boulevard	AM PM	0.745 0.674	C B	0.735 0.673	C B	-0.010 -0.001	NO NO
13. [c]	Fremont Avenue & Valley Boulevard	AM PM	1.027 0.989	F E	1.024 0.986	F E	-0.003 -0.003	NO NO

Note:
Delay is measured in seconds (using HCM based Synchro)
[a] Intersection shares jurisdiction with Caltrans and analyzed based on local jurisdiction methodology.
[b] Intersection is unsignalized and analyzed based on HCM 2010 methodology via Synchro.
[c] Intersection is analyzed based on City of Alhambra LOS criteria (ICU methodology)

Future Without Project Conditions

Ambient Traffic Growth: Existing traffic is expected to increase over time as a result of regional growth and development. Based on the City's guidelines, an ambient growth factor of 1.0% per year compounded annually was used to adjust the existing traffic volumes to project opening year in 2021. The total adjustment applied over the five-year period to full buildout was 5.1%.

Related Projects: The list of related projects is based on information provided by the Los Angeles Department of City Planning, LADOT, and City of Alhambra Development Services Department, as well as recent traffic studies prepared for projects in the area.

Though the buildout years of many of these related projects are uncertain and may be well beyond the buildout year of the North Campus project, and notwithstanding that some may never be approved or developed, they were all considered as part of the traffic study and conservatively assumed to be completed by the North Campus project buildout year of 2021. Therefore, the traffic growth due to the development of related projects considered in this analysis is highly conservative and, by itself, substantially overestimates the actual traffic volume growth in the study area that will likely occur in the next five years prior to Project buildout. With the addition of the 1% per year ambient growth factor previously discussed, the Future Without Project cumulative condition is represents an extremely conservative scenario.

Roadway Improvements: The roadway network for the Future Without Project conditions within the study area could also be affected by regional improvement plans, local specific plans, and programmed improvements (i.e., mitigations for related projects). However, upon consultation with LADOT, it was determined that the analysis should conservatively exclude potential improvements within the study area because of uncertainty as to the likelihood and timing of their implementation. Therefore, the lane configurations and signal phasing at the study intersections was assumed to remain unchanged between Existing and Future Conditions.

The projected Future Without Project intersection operating conditions for typical weekday AM and PM peak hours are summarized in Table 8. As shown, the same 9 of the 13 study intersections are projected to operate at LOS D or better during both the AM and PM peak hours, and the following four intersections are anticipated to operate at LOS E or F during either the AM and/or PM peak hour:

- Paseo Rancho Castilla/Eastern Avenue & Eastern Avenue/State University Drive – LOS E during the AM peak hour and LOS F during the PM peak hour
- Campus Road & Circle Drive – LOS F during both the AM and PM peak hours
- I-710 Southbound On-Ramp & Valley Boulevard – LOS F during the AM peak hour
- Fremont Avenue & Valley Boulevard – LOS F during both the AM and PM peak hours

Table 8
Future Without Project Intersection Peak Hour Level of Service

No.	Intersection	Peak Hour	Future Without Project	
			V/C or Delay	LOS
1.	Paseo Rancho Castilla/Eastern Avenue & Eastern Avenue/State University Drive	AM PM	0.997 1.067	E F
2. [a]	Eastern Avenue & I-10 Eastbound On-Ramp	AM PM	0.376 0.421	A A
3. [a]	Eastern Avenue & I-10 Eastbound Ramps/Ramona Boulevard	AM PM	0.688 0.634	B B
4. [b]	Campus Road & Circle Drive	AM PM	50.8 50.8	F F
5. [a]	Campus Road & I-10 Westbound Off-Ramp/State University Drive	AM PM	0.490 0.361	A A
6.	Campus Road & Ramona Boulevard	AM PM	0.751 0.491	C A
7.	Paseo Rancho Castilla & Lansdowne Avenue	AM PM	0.259 0.340	A A
8. [b]	Paseo Rancho Castilla & Circle Drive	AM PM	15.7 15.7	C C
9.	Mariondale Avenue & Valley Boulevard	AM PM	0.493 0.538	A A
10. [b]	Mariondale Avenue & Paseo Rancho Castilla	AM PM	17.3 17.3	C C
11. [a]	I-710 Southbound On-Ramp & Valley Boulevard	AM PM	1.058 0.817	F D
12. [a][c]	I-710 Northbound Off-Ramp & Valley Boulevard	AM PM	0.804 0.741	D C
13. [c]	Fremont Avenue & Valley Boulevard	AM PM	1.160 1.146	F F

Note:
Delay is measured in seconds (using HCM based Synchro)
[a] Intersection shares jurisdiction with Caltrans and analyzed based on local jurisdiction methodology.
[b] Intersection is unsignalized and analyzed based on HCM 2010 methodology via Synchro.
[c] Intersection is analyzed based on City of Alhambra LOS criteria (ICU methodology)

Future Plus Project Conditions

Future Plus Project Conditions are estimated based on traffic volumes at the project buildout year of 2021. As shown in Table 9, the same 9 of the 13 study intersections are projected to operate at LOS D or better during both the AM and PM peak hours, and the following four intersections are anticipated to operate at LOS E or F during either the AM and/or PM peak hour:

- Paseo Rancho Castilla/Eastern Avenue & Eastern Avenue/State University Drive – LOS E during the AM peak hour and LOS F during the PM peak hour
- F during both the AM and PM peak hours
- Campus Road & Circle Drive – LOS F during both the AM and PM peak hours
- I-710 Southbound On-Ramp & Valley Boulevard – LOS E during the AM peak hour
- Fremont Avenue & Valley Boulevard – LOS F during both the AM and PM peak hours

Based on the significance criteria, the project is not anticipated to result in significant impacts at any of the study intersections under the Future Plus Project conditions.

Table 9
Future Plus Project Intersection Peak Hour Level of Service

No.	Intersection	Peak Hour	Future Without Project		Future Plus Project			
			V/C or Delay	LOS	V/C or Delay	LOS	Change in V/C	Impact
1.	Paseo Rancho Castilla/Eastern Avenue & Eastern Avenue/State University Drive	AM PM	0.997 1.067	E F	0.933 1.062	E F	-0.004 -0.005	NO NO
2. [a]	Eastern Avenue & I-10 Eastbound On-Ramp	AM PM	0.376 0.421	A A	0.371 0.418	A A	-0.005 -0.003	NO NO
3. [a]	Eastern Avenue & I-10 Eastbound Ramps/Ramona Boulevard	AM PM	0.688 0.634	B B	0.681 0.628	B B	-0.007 -0.006	NO NO
4. [b]	Campus Road & Circle Drive	AM PM	50.8 50.8	F F	50.1 50.1	F F	-- --	-- --
5. [a]	Campus Road & I-10 Westbound Off-Ramp/State University Drive	AM PM	0.490 0.361	A A	0.485 0.351	A A	-0.005 -0.010	NO NO
6.	Campus Road & Ramona Boulevard	AM PM	0.751 0.491	C A	0.744 0.480	C A	-0.007 -0.011	NO NO
7.	Paseo Rancho Castilla & Lansdowne Avenue	AM PM	0.259 0.340	A A	0.257 0.332	A A	-0.002 -0.008	NO NO

8. [b]	Paseo Rancho Castilla & Circle Drive	AM PM	15.7 15.7	C C	15.1 15.1	C C	-- --	-- --
9.	Mariondale Avenue & Valley Boulevard	AM PM	0.493 0.538	A A	0.456 0.515	A A	-0.037 -0.023	NO NO
10. [b]	Mariondale Avenue & Paseo Rancho Castilla	AM PM	17.3 17.3	C C	16.2 16.2	C C	-- --	-- --
11. [a][c]	I-710 Southbound On-Ramp & Valley Boulevard	AM PM	1.058 0.817	F D	1.054 0.806	F D	-0.004 -0.011	NO NO
12. [a][c]	I-710 Northbound Off-Ramp & Valley Boulevard	AM PM	0.804 0.741	D C	0.794 0.740	C C	-0.010 -0.001	NO NO
13. [c]	Fremont Avenue & Valley Boulevard	AM PM	1.160 1.146	F F	1.157 1.143	F F	-0.003 -0.003	NO NO

Note:
Delay is measured in seconds (using HCM based Synchro)
[a] Intersection shares jurisdiction with Caltrans and analyzed based on local jurisdiction methodology.
[b] Intersection is unsignalized and analyzed based on HCM 2010 methodology via Synchro.
[c] Intersection is analyzed based on City of Alhambra LOS criteria (ICU methodology)

Vehicle Miles Traveled (VMT)

The project provides for new student housing complex with 1,500 beds, dining facilities and support services on the northeastern portion of the campus. This will shift 1,500 existing students from commuters to dorm students. In addition, the project will provide intramural sport and recreation fields for internal campus use and a soccer training facility for the use by a major league soccer team. To calculate the total VMT, the average trip length for each use and its assumptions are described below.

Based on Metro travel surveys, travel length data provided by CSULA staff shows that the average one-way commute to the campus by the students, faculty and staff is 13.09 miles. This average trip length was applied to the shift in commuter students and new student housing land uses. The new student housing complex will reduce VMT by providing additional on-campus housing for 1,500 students of Cal State LA. Students who currently commute to/from campus will live on campus and, thus, their daily vehicle miles of travel significantly decrease. By reducing the current VMT commute distance for each student and bringing those 1,500 students to on-campus housing, the project is reducing the home-to-school VMT by approximately 33,380 miles (1,500 students x 0.85 auto mode split x 26.18 miles per day). The project also includes a parking structure to accommodate displaced existing surface parking on the site and up to 100 additional parking spaces. The students living in new student housing will not be allowed to have automobiles as no further additional parking will be provided for these students. However, since the parking structure will provide 100 new parking spaces, trips equivalent to 200 dorm student daily trips are assigned to these spaces resulting in generation 5,236 daily VMT (100 spaces x 52.36 miles per day). In total, the new student housing will generate a reduction of 28,144 VMT per day.

As there is no average trip length for a practice soccer field published, the trip length for a typical place of employment (in this case, a commercial office) was used. Based on the Southern

California Association of Governments (SCAG) Regional Travel Demand Model and 2008 Model Validation (SCAG, June 2012), the average trip length for a home-to-work commute distance in Los Angeles County is approximately 13.78 miles. This average trip length was applied to the project's soccer field, resulting in generation of approximately 2,343 miles (85 persons x 27.56 mile round trip). Thus, this soccer field will generate an increase in VMT.

The net total VMT generated by the project is the total sum of the VMT generated by each individual use. As described above, the net total VMT for the project is a net reduction of approximately 25,801 VMT per day. The net reduction in VMT resulting from switching the 1,500 students currently commuting to the campus to students living on campus will have a beneficial effect on the environment and eliminate those commute trips from the street system surrounding the project. Therefore, the project will not result in an adverse impact.

Caltrans Facilities

Existing freeway volumes for I-10 were collected using Caltrans' Performance Measurement System (PeMS) data for the average weekday in July 2016. Existing freeway volumes for I-710 were collected using Caltrans recently published traffic count data (2014 Traffic Volumes on California State Highways, Caltrans, 2015). This data consists of the annual average daily traffic (AADT) volumes, as well as the two-way peak hour percent of AADT factor ("K factor") and the percent traffic in the peak direction factor ("D factor"), which were used to develop peak hour volumes. For consistency with Caltrans long-range planning, each Caltrans facility was analyzed for year 2035 conditions in addition to existing year 2016 conditions. The existing traffic volumes were increased by both ambient growth (assumed to be 1% per year compounded annually for 19 total years) and related project traffic. The traffic volumes generated by the project were compared as a proportion to the total projected growth at the study segments.

Table 10 presents an analysis of Caltrans freeway mainline segments under all analyzed conditions. The project is estimated to generate overall net reduction in vehicular trips by shifting existing commuting students to live on campus, resulting in a reduction of peak hour trips on the Caltrans freeway facilities. Based on the traffic volume analysis, the project will not contribute additional traffic to the existing freeway facilities. Therefore, the project will not result in a significant freeway facility impact.

Table 10
Caltrans Facilities Analysis

Freeway Segment	Peak Hour	Direction	Vehicles per Hour (VPH)					Proportion of Project-Related Traffic
			Existing	Related Project	Ambient Growth	Project	Total Growth	
I-10 west of I-710	AM	EB	3,122	113	650	-16	747	-2.10%
		WB	5,201	66	1,082	-5	1,143	-0.40%

	PM	EB	5,025	107	1,046	-5	1,148	-0.40%
		WB	3,387	139	705	-12	832	-1.40%
I-10 east of I-710	AM	EB	4,889	83	1,017	-3	1,097	-0.30%
		WB	4,826	90	1,004	-10	1,084	-0.90%
	PM	EB	6,359	119	1,323	-8	1,434	-0.60%
		WB	3,458	119	720	-4	835	-0.50%
I-710 north of I-10	AM	NB	1,934	57	402	-34	425	-8.00%
		SB	2,791	21	581	-6	596	-1.00%
	PM	NB	2,427	61	505	-12	554	-2.20%
		SB	1,720	71	358	-17	412	-4.10%
I-710 south of I-10	AM	NB	5,415	96	1,127	-25	1,198	-2.10%
		SB	7,815	61	1,626	-7	1,680	-0.40%
	PM	NB	6,797	96	1,414	-9	1,501	-0.60%
		SB	4,816	123	1,002	-19	1,106	-1.70%

Congestion Management Program

The Los Angeles County Metropolitan Transportation Authority (Metro) oversees preparation and implementation of the Congestion Management Program (CMP), a State-mandated program to monitor traffic growth on the regional transportation system and work to maintain pre-established LOS on critical routes.

The CMP identifies one arterial monitoring intersection at Fremont Avenue and Valley Boulevard. The Cal State LA North Campus Project is projected to generate a net reduction in peak hour trips, and will not add 50 or more trips to the arterial monitoring station. Therefore, further analysis of the CMP arterial monitoring station is not required, and the project will not result in a significant CMP impact.

There are two CMP freeway monitoring stations within the vicinity of the project site:

- I-10 at East LA City Limit (1.7 miles southwest of the project site)
- I-10 at Atlantic Boulevard (1.75 miles east of the project site)

The Cal State LA North Campus project is projected to generate a net reduction in peak hour trips, and will not add 150 or more peak hour trips to both of the CMP freeway monitoring stations. Therefore, further analysis of the CMP freeway monitoring stations is not required, and the project will not result in a significant CMP impact.

Pedestrian and Bicycle Facilities

The project will result in increased pedestrian activity on existing pathways and sidewalks between the project site and other campus facilities, but will not result in significant impacts. No changes to the bicycle facilities or routes will occur due the project, and therefore the project will not result in impact to the bicycle facilities.

Transit

The project is anticipated to generate a net reduction of 134 AM peak hour trips and a net reduction of 115 PM peak hour trips by providing on-campus housing and will not generate any new transit trips during either the AM or PM peak hour. Therefore, the project will not result in significant regional transit impacts.

Mitigation Measures

Under both the current conditions and future conditions, the implementation of the project will result in beneficial impacts on traffic by reducing VMTs and daily commute trips. The project will not result in any significant impact to the study intersections, transit, or pedestrian and bicycle circulation systems. Therefore, no mitigation is required.

3.4 Fire and Police Protection Services

Environmental Setting

Fire Protection

The City of Los Angeles Fire Department (LAFD) provides fire protection services for the campus, including the North Campus project site. The fire station closest to the site is Fire Station No. 16, located at 2011 North Eastern Avenue, approximately one mile west of the site. Other fire stations in the vicinity include Fire Station No. 47 and Fire Station No. 2.

Police Protection

The University Police Department provides police protection services for the campus, including the North Campus project site. Its headquarters is located in the Public Safety Building on campus, at Campus Road and Paseo Rancho Castilla. The University Police Department is responsible for coordination of the emergency management needs of the campus, including coordination with the Los Angeles Police Department for services involving major crimes that require specialized resources. The University Police also have a working relationship with law enforcement agencies in the surrounding communities, including Alhambra and Monterey Park Police Departments, as well as the Los Angeles County Sherriff's Department[3]. The University Police Department provides a number of services to the campus community, including:

- 24-hour patrol of the university campus and surrounding area
- 24-hour public safety/university police dispatch center
- Investigations
- 'Eagle Patrol' escort services
- First aid
- Self-defense training
- Crime prevention
- Campus outreach
- Special event security
- Crowd and traffic control
- Live scan fingerprinting services for various licensing and certification programs
- Alarm monitoring and response

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[3] California State University Los Angeles, *2016 Campus Safety Report (2014 Statistics)*. http://www.calstatela.edu/sites/default/files/groups/Department%20of%20Public%20Safety/campus_safety_report/campus_safety_report.pdf

- Lost and found property management
- Lighting and emergency telephone surveys
- Crisis planning/emergency preparedness

Impact Criteria

Impact on police and/or fire protection services will be significant if the project will require construction of new facilities or expansion of existing facilities, the construction of which would result in significant adverse effects, in order to maintain acceptable service ratios, response times, and other performance objectives.

Environmental Impact

Fire Protection

The City of Los Angeles Fire Department will continue to provide services to the project site. Fire protection and paramedic service will continue to be provided by Fire Station No. 16, located at 2011 North Eastern Avenue. The station is located approximately one mile from the project site, with an estimated response time of five minutes. If needed, other fire stations in the vicinity will also provide support.

Fire safety is a priority consideration in the design and construction of new facilities, and therefore construction of the student housing, dining, and other facilities at the site will involve ongoing consultation with the Fire Marshal and University fire officials to ensure that all code requirements are met. All required fire safety features will be incorporated in compliance with existing requirements, including fire detectors and sprinkler systems. In compliance with existing requirements, all necessary fire lines and hydrants with appropriate fire flows will be provided; unobstructed fire emergency access to the buildings will be provided from existing streets and new internal streets with fire access roads at the perimeter of the site; and all other features required by the Fire Department that will minimize fire hazard potential will be provided in all North Campus project facilities. All fire equipment will be maintained in accordance with State and local regulations, and will be inspected on a regular schedule and re-charged, repaired, or replaced as needed. If a fire situation is identified, University Police will institute an emergency response and contact the LAFD, if necessary.

Therefore, while the project includes new facilities thus contributing to an incremental increase in demand for fire protection services, with these features the project will not result in the need for new fire protection facilities, the construction of which would result in significant adverse effects. Therefore, impact is considered less than significant.

Police Protection

The University Police Department will continue to provide police protection services to the project site. University Police also has mutual aid agreements and cooperates fully with local and state law enforcement agencies, including the Alhambra, Los Angeles, and Monterey Park Police Departments, as well as the Los Angeles County Sherriff's Department.

Before the new student housing, dining, parking and sport facilities are occupied, the University Police Department will review lighting and landscaping plans, traffic ingress/egress plans, and project plans for each facility. Lighting plans will be evaluated for effective building exterior and parking areas lighting. Landscaping plans will be reviewed to ensure that hiding or concealment places are minimized. The site plans will be reviewed to ensure that adequate ingress/egress for police vehicles is provided. Security plans for individual buildings on the site will be developed and implemented in conjunction with the consultation of the University Police Department. The University Police Department recommendations resulting from these reviews will be incorporated in the North Campus project facilities. The new buildings and other facilities will be incorporated into the University's security and emergency response plans to ensure appropriate emergency response.

In addition, other measures will be utilized to enhance safety. New facilities may include passive and/or active security systems, including silent alarms and additional security systems not limited to door, window, and burglar alarms or other monitoring devices to minimize the need for additional personnel.

Therefore, while the provision of new facilities at the site is anticipated to result in an incremental increase in demand for police protection services, this increase will be minimized through implementation of comprehensive safety and security measures in new facilities and appropriate staffing of the University Police Department. Therefore, no major new local or regional facilities will be required, the construction of which would result in significant adverse effects, and impact is considered less than significant.

Mitigation Measures

With compliance with existing regulations and requirements, impact will be less than significant, and no additional mitigation is required.

Level of Impact After Mitigation

With compliance with existing regulations and requirements, impact will be less than significant, and no additional mitigation is required.

3.5 Utilities and Service Systems

This section addresses the impact of the North Campus project on public utility infrastructure and services.

Environmental Setting

Water and Sewer

Currently, the project site is comprised of surface parking, and the North Field sports field that is not currently in use. Therefore, the project site's use of water and generation of wastewater is minimal.

Electricity Service

Electricity service is provided to the campus by the City of Los Angeles Department of Water and Power. As the project site is comprised of surface parking and the North Field which is not currently in use the use, the site's use of electricity is minimal.

Stormwater Drainage

The project site contains existing impervious surface parking lots which generate stormwater runoff. This runoff is conveyed to the existing campus drainage system that serves the project site and the adjoining existing student housing, the nearby parking structure and surface parking.

Solid Waste

Currently, the project site generates very little solid waste as it is used as surface parking. The existing North Field is not currently in use and does not generate waste.

Impact Criteria

Impact on public utility services will be significant if the project will exceed the utility's capacity to provide services and/or will require construction of new facilities or expansion of existing facilities, the construction of which would cause significant physical effects on the environment.

Environmental Impact

Water

Domestic water for all Cal State LA campus facilities is supplied by the City of Los Angeles Department of Water and Power (LADWP).

Primary sources of water for the LADWP service area are the Los Angeles Aqueduct (LAA), local groundwater, and State Water Project and Colorado River Aqueduct, supplied by the Metropolitan Water District (MWD). Water supplies from the LAA, State Water Project, and Colorado River Aqueduct are considered imported water since they are obtained from outside the LADWP's service area. An additional source, recycled water, is becoming a larger part of the overall LADWP's supply portfolio. The five-year (2010-2015) water supply was comprised on average of 29% from the LAA, 12% from local groundwater, 57% from MWD, and 2% from recycled water. The imported water (LAA water plus MWD water over the last five years) supplied, on average, approximately 87% of the City's demands. Typically, the use of the imported water ranges from approximately 400,000 to 500,000 acre-feet per year (AFY). [4]

The Los Angeles Department of Water and Power's 2015 Urban Water Management Plan, adopted in June 2016, provides future projections for its service area. Historical supply sources are under increased multiple constraints, including minimal snowfall, potential impacts of climate change, groundwater basin contamination, and reallocation of water for environmental concerns. To mitigate these impacts on supply sources, LADWP is developing a path towards sustainability by accelerating investments in conservation, water recycling, stormwater capture, and local groundwater development and remediation. LADWP also aims to achieve short- and long-term targets established in the Sustainable City pLAn (pLAn), a City of Los Angeles plan that sets goals in 14 categories, including water use, to strengthen and promote sustainability of the environment, economy, and equity in Los Angeles. In addition, multiple facets of sustainability outlined in the City of Los Angeles Sustainability City pLAn are applicable to LADWP operations, including, but not limited to, carbon emission reduction, climate change leadership, and preparedness and resiliency. As part of LADWP projections, it is estimated that the total long-term savings from conservation measures within the LADWP's service area would range from approximately 125,800 AFY in 2020 to 108,100 AFY 2040. The forecasts for the average year, single dry year, and multiple dry years hydrologic conditions indicate that sufficient supply will be available to meet the overall demands within the LADWP service area over the planning period of 2020 through 2040. This includes imported water supplies. [5]

Tables 11 and 12 illustrate the LADWP projected water demand and supplies for an average year and multiple dry years.

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[4] 2015 Urban Water Management Plan, Los Angeles Department of Water and Power, June 2016.

[5] 2015 Urban Water Management Plan, Los Angeles Department of Water and Power, June 2016.

Table 11
Water Demand and Supply Projections - Average Year (acre-feet)

	2020	2025	2030	2035	2040
Total Water Demand	611,800	644,700	652,900	661,800	675,700
pLAn Water Demand Target	485,600	533,000	540,100	551,100	565,600
Existing/Planned Supplies					
Conservation	125,800	110,900	111,600	109,100	108,100
Los Angeles Aqueduct	275,700	293,400	291,000	288,600	286,200
Groundwater (Net)	112,670	110,670	106,670	114,670	114,070
Recycled Water					
-Irrigation and Industrial Use	19,800	29,000	39,000	42,200	45,400
-Groundwater Replenishment	0	30,000	30,000	30,000	30,000
Stormwater Capture					
-Stormwater Reuse (Harvesting)	400	800	1,200	1,600	2,000
-Stormwater Recharge (Increased Pumping)	2,000	4,000	8,000	15,000	15,000
Subtotal	536,370	578,770	587,470	601,170	600,770
MWD Water Purchases					
With Existing/Planned Supplies	75,430	65,930	65,430	60,630	74,930
Total Supplies	611,800	644,700	652,900	661,800	675,700

Source: Los Angeles Department of Water and Power, 2015 Urban Water Management Plan, June 2016.

Table 12
Water Demand and Supply Projections- Multi-Dry Years (acre-feet)

	2020	2025	2030	2035	2040
Total Water Demand	642,400	676,900	685,500	694,900	709,500
pLAn Water Demand Target	485,600	533,000	540,100	551,100	565,600
Existing/Planned Supplies					
Conservation	156,700	143,700	145,100	143,500	143,500
Los Angeles Aqueduct	33,500	53,200	52,800	52,400	51,900
Groundwater (Net)	112,670	110,670	106,670	114,670	114,070
Recycled Water					
-Irrigation and Industrial Use	19,800	29,000	39,000	42,200	45,400
-Groundwater Replenishment	0	30,000	30,000	30,000	30,000
Stormwater Capture					
-Stormwater Reuse (Harvesting)	100	200	300	300	400
-Stormwater Recharge (Increased Pumping)	2,000	4,000	8,000	15,000	15,000
Subtotal	324,700	370,700	381,870	398,070	400,270
MWD Water Purchases					
With Existing/Planned Supplies	317,630	306,130	303,630	296,830	309,230
Total Supplies	642,400	676,900	685,500	694,900	709,500

Source: Los Angeles Department of Water and Power, 2015 Urban Water Management Plan, June 2016.

The North Campus project provides for new student housing with an associated dining facility, improved and new sport and recreation fields, an improved soccer field with an associated training facility, and a parking structure. The estimated potable water use associated with these facilities is summarized in Table 13.

Table 13
Project Estimated Water Use
(gallons per day/acre-feet per year)

Facility	Water Use Rate (gpd)	Size	Water Use (gpd)	Water Use (afy)
Student Housing	1.9 /student	1,500 students	2,850	3.19
Dining Facility	33 /1,000 sf	15,000 sf	495	0.56
Athletic Facility	327.1 /1,000 sf	30,000 sf	9,813	10.99
Athletic Field with natural grass	4,110 /field	2 fields	8,219	9.20
Athletic Field with artificial turf	822 /field	1 field	822	0.92
Total			**22,199**	**24.86**

Note: sf = square feet; gdp = gallons per day; afy =acre-feet per year
Water use rates for student housing based on water use data from Cal State LA for FY2015-2-16. Water use rates for soccer fields with natural grass based on Alliance for Water Efficiency rates. Water use rates for soccer field with artificial turf based on UCLA study: Comparison of the Lifetime Costs and Water Footprint of Sod and Artificial Turf: A Life Cycle Analysis (2016).

As shown, the project will result in use of approximately 22,199 gallons of water per day, or 24.9 acre-feet of water per year. This water use represents less than 0.004% (four one-thousands of one percent) of the projected 2025 total water supply during average and multiple dry areas, and less than 0.005% (five one-thousands of one percent) of the projected 2025 total water supply goal of the City of Los Angeles Sustainability City pLAn.

Within the LADWP, water use by 500 dwelling units ranges from 337.2 gallons per day for single-family units to 219.0 gallons per day for multi-family units[6]; in comparison, the North Campus project will result in substantially less demand for water than that associated with 500 dwelling units as the project's water use represents 13% of water use associated with 500 single family units and 20% of water use associated with 500 multi-family units.

All project facilities will implement the mandated water conservation measures including ultra low-flow toilets, urinals, taps, water conservation plumbing, and other required conservation measures to reduce the amount of water used. All landscaping at the site will be with native or drought-resistant vegetation that will reduce the amount of water used for irrigating landscaped areas, further reducing the use of water at the site. Increased demand for water, including from institutional/government users, such as Cal State LA, has been taken into account in the LADWP's planning efforts. Therefore, existing and projected water supplies are available to serve the project, and no additional entitlements or treatment/distribution systems are anticipated to be required due to the project.

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[6] 2015 Urban Water Management Plan, Los Angeles Department of Water and Power, June 2016.

The project includes provision of new water lines to serve the new student housing and its dining facility and the athletic fields. The new water lines will connect to the campus' existing water utilities grid, which has the capacity to accommodate the project.

The project's implementation of water conservation measures in compliance with existing requirements and payment of all legally required capital facilities fees pursuant to and in compliance with the California Government Code Section 54999, will mitigate any potential impact on the regional water system and infrastructure to a less than significant level.

Electricity Service

The project's student housing, South Fields sport and recreation fields, and the parking structure will connect to the campus' electrical utility grid, which has the capacity to serve these facilities. The North Field soccer practice field with the training facility will either connect to the campus electrical infrastructure, or directly to the existing LADWP electrical utility closest to the North Field.

Heating and cooling for the student housing will operate as a stand-alone system for the buildings, which is how the existing student housing facilities adjoin the site operate. The electrical service that is required to support the equipment to run heating and cooling will be supplied through the campus' infrastructure. Heating and cooling for the North Field soccer training field with training facility will operate independently of the campus' central systems for boilers and chilled water.

With the existing capacity of the campus' electrical grid and the required payment of connection and service fees to LADWP, the project's impact will be less than significant.

Sewer

Los Angeles Sanitation (LASAN) is responsible for operating and maintaining the City's, and one of the world's largest wastewater collection and treatment systems. The LASAN jurisdiction consists of 6,700 miles of sewer lines, 49 pumping plants, and four wastewater reclamation plants (the Hyperion, the Terminal Island, the Donald C. Tillman, and the LA-Glendale), which have a combined capacity to treat 580 million gallons of wastewater per day. The Hyperion Water Reclamation Plant (HWRP) treats the vast majority of the City's flows, and is designed to accommodate 450 million gallons of wastewater on a dry weather day. Currently on an average dry weather day, 275 million gallons of wastewater enters the HWRP[7]. Based on the projected water use, the project will generate 11,842 gallons of wastewater[8], which represents less than 0.007% (seven one-thousands of one percent) of the HWRP's remaining capacity of 175 million gallons per day. Excess wastewater can also be diverted to the City's other water reclamation plants as needed. The LA-Glendale plant, which is the closest to the campus, currently processes

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[7] Los Angeles Sanitation. www.lacitysan.org

[8] It is assumed that 90% of used water becomes wastewater.

an estimated 20 million gallons of wastewater per day[9]; the project's wastewater represents less than 0.06% (six-tens of one percent) of the LA-Glendale plant's average daily intake.

The project includes the provision of a new sewer lines for the new facilities connected to the existing sewer grid of the campus which has the capacity to accommodate the project.

The mandated water conservation measures implemented in the project's facilities, including ultra low-flow toilets, urinals, taps, water conservation plumbing, and other required conservation measures will reduce the amount of water used, and the resultant wastewater flows. Also, all legally required capital facilities fees will be paid pursuant to and in compliance with the California Government Code Section 54999. The reduced wastewater discharges and payment of the required capital facilities fees will mitigate any potential impact on the regional sewer system to a less than significant level.

Stormwater Drainage

The project's new student housing and parking structure will replace existing impervious surface parking and thus, will not increase the amount or change the pattern of stormwater runoff. The project's provision of new athletic fields will result in a beneficial effect of replacing existing impervious surface parking with pervious surfaces that will reduce stormwater runoff from the project site. Therefore, the project's overall impact will be beneficial; no adverse impact will result.

Stormwater Quality

Stormwater runoff is regulated under the National Pollutant Discharge Elimination System (NPDES). The NPDES storm water permits provide a mechanism for monitoring the discharge of pollutants into stormwater runoff. Cal State LA is a co-permittee under the NPDES stormwater permit for small municipal separate storm sewer systems (MS4) (NPDES Permit No. CAS000004). As co-permittee, the University ensures that all development within the campus boundaries abides by the NPDES requirements for construction and operations, as appropriate. Therefore, development of the North Campus project site will implement the stormwater management control BMPs, including, but not limited to pervious areas within the site, which includes new soccer fields replacing impervious surface parking, and using California native and/or drought-tolerant trees, and large shrubs (in place of grass turf) in landscaping, and will include gravel beds, so that the captured runoff will be filtered through both the gravel beds/soil and the plant materials. Implementation of these BMPs in compliance with existing regulations, as well as the project's provision of new athletic field areas, will provide pervious surfaces and bio-filtration, and thus, in addition to retarding peak flows it will provide necessary functions to improve quality of stormwater runoff through bio-filtration. Compliance with these existing regulations will ensure that impact will be less than significant.

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[9] Los Angeles Sanitation. www.lacitysan.org

Solid Waste

The University is committed to a campus-wide consolidated waste management program which includes providing trash/waste removal and recycling efforts. To further promote the importance of recycling and sustainability, the campus contracts with Southland Disposal to process consolidated waste which is transferred to a materials reclamation facility. The mixed solid waste stream is then separated into various recyclable materials through a combination of manual and mechanical sorting. The sorted recyclable materials undergo further processing required to meet a zero percent waste goal. The final step of the process includes taking all excess, non-recyclable material to a waste-to-energy plant. This process eliminates all waste produced by the campus from entering landfills.[10] These waste diversion programs, including providing designed recycling facilities (e.g. recycling bins) and adequate storage area for collection and removal of recyclable materials, will be implemented at all North Campus Project facilities.

This waste reduction and diversion is anticipated to continue to grow consistent with the State law of diverting at least 75%[11], and the California State University's goal of 80% of waste by 2020.[12]

The estimated project's solid waste generation is summarized in Table 14. As shown, the project will generate approximately 123 tons of additional solid waste per year. 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 25 tons per year.

Table 14
Estimated Project Solid Waste Generation
(tons per year)

Facility	**Generation Rate**	**Size**	**Project Solid Waste Generated**
Student Housing	0.1 lbs/student/day	1,500 students	27
Dining Facility	4.58 tons/1,000 sf/year	15,000 sf	69
Athletic Facility	5 lbs/ksf/day	30,000 sf	27
Subtotal			123
80% Solid Waste Diversion			(-98)
Total			**25**

Source**:** The California State University, Sustainability Report 2014.
Cal Poly Pomona Student Housing Replacement EIR, November 2016.
City of Los Angeles Bureau of Sanitation, "Solid Waste Generation", 1981.
Note: Calculations are rounded to the closes tenth.

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[10] California State University Los Angeles, Facilities Services – Campus Recycling. http://www.calstatela.edu/facility/campus-recycling

[11] Assembly Bill No. 75 and Assembly Bill No. 341

[12] The California State University, Sustainability Report 2014.

The Class III Landfills that currently accept solid waste generated within the County of Los Angeles include Antelope Valley Landfill, Burbank Landfill, Calabasas Landfill, Chiquita Canyon Landfill, Commerce Refuse-to-Energy Facility, Lancaster Landfill, Pebbly Beach Landfill, San Clemente Landfill, Savage Canyon Landfill, Scholl Canyon Landfill, Southeast Resource Recovery Facility, and Sunshine Canyon Landfill. Currently, the total remaining permitted Class III landfill capacity in the County is estimated at 112 million tons.[13]

As the North Campus project will generate a small amount of solid waste and implement 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.

Mitigation Measures

With compliance with existing regulations and requirements, impact on public utilities and services and stormwater quality will be less than significant. No additional mitigation is required.

Level of Impact After Mitigation

With compliance with existing regulations and requirements, impact on public utilities and services and stormwater quality will be less than significant. No additional mitigation is required.

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[13] County of Los Angeles Countywide Integrated Waste Management Plan: 2014 Annual Report.

3.6 Cultural Resources

Environmental Setting

The North Campus project site consists of existing surface parking and a sports field (North Field), and no known cultural resources are located within or near the site, or within the Cal State LA campus.

Impact Criteria

The impact is considered to be significant if the project will cause a substantial adverse change in the significance of a historic resource; archaeological resource; or a tribal cultural resource defined in the 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 that is listed or eligible for listing in the California Register of Historical Resources or in a local register of historical resources; or if the project will destroy a unique paleontological resource.

Environmental Impact

Historic Resources: The project site does not contain any structures as it is currently developed with surface parking and a sports field (North Field), and therefore, no impact on a historic resource will result.

Archaeological and Paleontological Resources: The project site is comprised of existing surface parking and a sports field. There are no known archaeological or paleontological resources within or near the project site. None of such resources have been discovered throughout the history of the campus development, including the development of the project site. While the potential for uncovering such significant resources is considered remote, in an unlikely event that such resources are discovered during project construction, compliance with existing laws and regulations will ensure no significant impact. These laws and regulations include: (1) stopping work in the event that an archaeological or paleontological resource is discovered until a qualified archeologist or paleontologist can visit the site and assess the significance of the potential resource.; (2) the archeologist or paleontologist will then conduct on-site archaeological or paleontological monitoring, including inspection of exposed surfaces to determine if archaeological resources or fossils are present, and (3) if such resources are present, the monitor will have the authority to divert grading away from exposed resources temporarily in order to recover the resources.

Tribal Cultural Resources: There are no known cultural tribal resources within or near the project site. None of such resources have been discovered throughout the history of the campus development, including the development of the project site. While the potential for uncovering significant tribal cultural resources at the project site is considered remote, in an unlikely event that such resources are discovered during project construction, mitigation measures have been identified to reduce such impact.

In addition, in an unlikely event that human remains are inadvertently discovered during construction, compliance with existing laws and regulations will ensure no significant impact. These laws and regulations include: (1) ceasing construction in the vicinity of the discovery or any nearby area, and (2) immediately notifying the Los Angeles County Coroner's Office. Furthermore, if the county coroner determines that the remains are Native American, then (1) contacting the Native American Heritage Commission within 24 hours, (2) the Native American Heritage Commission will then designate a most likely descendent who may make recommendations concerning the disposition of the remains and associated grave goods in consultation, and (3) if the Native American Heritage Commission is unable to identify a most likely descendant or if the most likely descendent failed to make a recommendation within 24 hours, reburying the remains and associated grave goods on the property in a location that will not be disturbed.

Mitigation Measures

Archaeological and Paleontological Resources: In an unlikely event that previously unknown archaeological or paleontological resources are discovered during the construction of the North Campus project, compliance with the existing laws and requirements will reduce that impact to a less than significant level.

Tribal Cultural Resources: While the potential for uncovering significant tribal cultural resources at the project site is considered remote, in an unlikely event that such potential resources are discovered during project construction, the following measures will be implemented:

1. All earth moving construction activity will be halted until a qualified Native American monitor can visit the site and assess the significance of the potential resource.

2. The Native American monitor will then conduct on-site cultural tribal resources monitoring, including inspection of exposed surfaces to determine if such resources are present.

3. If such resources are present, the Native American monitor will have the authority to divert grading away from exposed resources temporarily to examine the potential significance of such resources.

4. If such resources are determined significant and the resource cannot be recovered, the resource site will be covered with a layer of chemically stable soil before constructing

project facilities on the site, if feasible; or if data recovery through excavation is the only feasible mitigation, a data recovery plan, which makes provision for adequately recovering the scientifically consequential information from and about the tribal cultural resource will be prepared and adopted prior to any excavation being undertaken and implemented during excavation or grading.

5. Such significant resources will be treated with culturally appropriate dignity taking into account the tribal cultural values and meaning of the resource, including protecting the confidentiality of the resource.

Level of Impact After Mitigation

While the potential for uncovering previously unknown significant archaeological or paleontological resources on the project site is considered remote, in an unlikely event that such resources are discovered during construction, compliance with existing laws and regulations will ensure no significant impact.

While the potential for uncovering previously unknown significant tribal cultural resources at the project site is considered remote, in an unlikely event that previously unknown tribal cultural resources are discovered during the construction of the project, compliance with the existing laws and requirements and the implementation of the identified mitigation measures will reduce such impact to a less than significant level.

3.7 Construction Effects

This section examines short-term effects associated with the construction of the proposed North Campus project.

Environmental Setting

Generally, construction activities result in short-term and intermittent noise, dust, air, and water pollution impacts, as well as increased truck and construction worker trips and localized traffic congestion. In most cases, general disturbance and annoyance associated with construction affects uses in close proximity to the construction site. However, other construction impacts, such as those on air and water quality, can affect areas at great distances from a specific construction site.

The project site is located within the northern area of the campus, and it comprises an existing sports field (North Field) and surface parking (Parking Lots 7 and 7A). The project will provide for new student housing facilities, new sport and recreation fields, a parking structure that will replace the existing surface parking, and an improved North Field that will be used as a training field by a major league soccer team. Within the campus, facilities adjacent to the project site include student housing, surface parking lots, a parking structure, the Anna Bing Arnold Children's Center, and the Los Angeles County High School for the Arts (LACHSA), as well as various academic buildings south of Circle Drive. The project site is also in close proximity to residential neighborhoods towards the north.

Impact Criteria

Construction activities are considered to have a significant impact if they substantially disrupt or interfere with day-to-day operations of surrounding land uses, substantially affect sensitive uses, or create public health and/or safety hazards.

Environmental Impact

Air Quality and Greenhouse Gases

Construction emissions associated with the North Campus project were calculated using the current version of the California Emission Estimator Model (CalEEMod), version 2016.3.1. The model uses current California ARB emission factors for automobile and truck emissions and EPA emission factors for equipment and fugitive dust. CalEEMod estimates worker trips and truck trips based on average construction requirements. To account for a "worst-case" peak day construction emissions, the highest number of equipment pieces on any given day is used and all equipment pieces are assumed to operate full 8 hours a day, even though in practice, not all this equipment will be in use simultaneously for 8 hours during any single construction day. While the short-term construction emissions of the criteria pollutants also generate greenhouse gas emissions, there is no established peak day threshold for those emissions.

The North Campus project will be constructed in phases. The North Field improvements are anticipated to begin and be completed in 2017. Construction of the proposed parking structure is anticipated to begin in 2017 and be completed by Fall 2019. The South Fields construction is anticipated to begin and be completed in 2018. Construction of student housing, including the dining facility, is anticipated to begin in 2018 and be completed in time for the new academic year starting in Fall 2021. The potential overlap of construction of the South Fields, the parking structure, and the student housing facilities in 2018 is assumed to be the peak construction period for the project. The peak day emissions from construction of these facilities are analyzed as the "worst-case" peak day construction emissions, and the resultant peak day criteria pollutant emissions are summarized in Table 15.

Table 15
Estimated Peak Day Criteria Air Pollutant Emissions from Construction
(pounds per day)

	Reactive Organic Gases (ROG)	**Oxides of Nitrogen (NO_x)**	**Carbon Monoxide (CO)**	**Fine Particulate Matter (PM10)**	**Fine Particulate Matter (PM 2.5)**	**GHG (CO_2e)**
Peak Day Emissions	20	146	141	47	27	34,671
SCAQMD Threshold	75	100	550	150	55	-
Exceed Threshold?	**No**	**Yes**	**No**	**No**	**No**	-

Note:
The higher of winter or summer emissions are shown.
Based on daily maximum construction emissions during construction years.
Source: CalEEMod, Version 2016.3.1.

As shown, short-term peak day construction emissions will be below the SCAQMD threshold amounts for most criteria pollutants, except for NO_x emissions. Since the peak construction day emissions of NO_x could be above the threshold amount, this potential impact is considered significant.

Toxic Air Pollutants

The California ARB has identified diesel particulate emissions as carcinogenic air toxics. No safe threshold for the emissions has been established. However, the amount of diesel emissions associated with a modest amount of construction associated with the North Campus Project will be relatively small and will not involve massive or prolonged operations of diesel trucks or equipment. While diesel exposure from construction is not expected be a significant impact, because there are existing campus facilities in the vicinity of the site mitigation measures have been identified to reduce diesel particulate emissions from construction equipment.

Water Quality

Construction activities can impact water quality in several ways. First, to comply with SCAQMD guidelines, most construction sites are required to be watered to reduce emissions of PM_{10}. This can result in runoff from the site laden with construction debris (including trash, cleaning solvents, cement wash, asphalt and car fluids like motor oil, grease, and fuel) and sediment, potentially affecting local waterways. Second, during rain storms, stormwater runoff from construction sites can carry construction debris and sediment into local waterways.

For construction in areas of 1 acre or more in size, current regulations require design and implementation of a Storm Water Pollution Prevention Plan (SWPPP), which focuses on the implementation of Best Management Practices (BMPs). Examples of BMPs to reduce impacts on water quality include:

- Schedule excavation and grading work for dry weather
- Use as little water as possible for dust control
- Never hose down dirty pavement of impermeable surfaces where fluids have spilled
- Utilize re-vegetation, if feasible, for erosion control after clearing, grading, or excavating
- Avoid excavation and grading activities during wet weather
- Construct diversion dikes to channel runoff around the site, and line channels with grass or roughened pavement to reduce runoff velocity
- Cover stockpiles and excavated soil with wraps or plastic sheeting
- Remove existing vegetation only when absolutely necessary
- Consider planting temporary vegetation for erosion control on slopes where construction is not immediately planned

With implementation of the required BMPs impact will be less than significant, and no additional mitigation measures beyond compliance with existing regulations are required.

Noise

Construction activities will result in a temporary increase in ambient noise levels in the vicinity of the construction site. During construction, noise from heavy equipment, power and air tools, compressors, trucks, and 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 dB(A) for tractors, up to 95 dB(A) for construction trucks, up to 88 dB(A) for concrete mixers, and up to 87 dB(A) 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 could range from 75 to 90 dB(A), with occasional higher peaks.

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 six 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 noise associated with the North Field improvements and replacement of existing surface parking with sport and recreation fields will be relatively low in comparison with construction of new student housing and a parking structure. Nonetheless, short-term and intermittent noise from construction will be audible within the adjacent area. The closest noise sensitive uses to the project include the campus' existing student housing, LACHSA, Anna Bing Arnold Children's Center facilities, and the residential neighborhoods to the north of the campus. Mitigation measures have been identified to reduce noise impact to these nearby noise sensitive uses.

Traffic/Circulation

Construction activity will add trucks and construction equipment to streets in the area. Haul trucks and heavy equipment usually travel more slowly than other traffic on the street network and require more time to enter and exit traffic flows. When heavy equipment enters or exits a construction site, it may interrupt vehicular or pedestrian traffic. Construction activities associated with the North Campus project will involve the use of trucks, usually for short periods of time, to deliver construction materials and haul away construction debris. These trucks and equipment may cause localized congestion at some locations in the surrounding area, which is a potentially significant impact if not properly mitigated. Therefore, mitigation measures have been identified to reduce these potential impacts.

Solid Waste

Construction of the North Campus project will generate construction materials waste. Even though the overall construction activities associated with the project will not involve massive construction that could generate significant amounts of solid waste, mitigation has been identified to reduce this impact.

Mitigation Measures

The University will implement the following mitigation measures to reduce identified impacts by imposing conditions on the construction contractors.

Air Quality and Greenhouse Gases

1. During high wind episodes (wind speeds exceeding a sustained rate of 25 miles per hour); grading or other high-dust generating activities will be suspended.
2. During smog alerts, all construction activities will be suspended.
3. All construction equipment will be properly tuned.

4. Diesel particulate filters are installed on diesel equipment and trucks and low sulfur diesel will be used for construction equipment.
5. Gasoline, butane, or electric power construction equipment will be used if feasible.
6. To reduce emissions from idling, the contractor shall ensure that all equipment and vehicles not in use for more than 5 minutes are turned off, whenever feasible.
7. Low VOC-content asphalt and concrete will be utilized to the extent possible.
8. All stockpiles will be covered with tarps or plastic sheeting.
9. Speeds on unpaved roads will be reduced below 15 miles per hour.
10. All haul trucks that carry contents subject to airborne dispersal will be covered.
11. All access points to the site used by haul trucks will be kept clean during site earthwork.
12. Exposed surfaces will be watered regularly as needed.
13. All access points used by haul trucks will be kept clean during earthwork.
14. Electricity from power poles rather than temporary diesel or gasoline generators will be used to the extent available.
15. As needed, campus outdoor activities in the site vicinity will be limited during high-dust and other heavy construction activities.
16. Throughout the construction period, the ventilation systems in the existing student residence halls adjacent to the project site will be tested and as needed, put on a more frequent maintenance schedule to ensure that they are functioning properly and providing proper ventilation.
17. During construction of the parking structure, disturbed areas within the construction site will be watered every 3 hours.

Furthermore, the University will continue to:

1. Include in all construction contracts the requirement to use 2010 and newer diesel haul trucks (e.g., material delivery trucks and soil import/export). In the event that that 2010 model year or newer diesel trucks cannot be obtained, provide documentation as information becomes available and use trucks that meet EPA 2007 model year NOx emissions requirements.

2. Include in all construction contracts the requirement that all off-road diesel-powered construction equipment greater than 50 hp shall meet Tier 4 off-road emission standards at a minimum. In addition, if not already supplied with a factory-equipped diesel particulate filter, all construction equipment shall be outfitted with BACT devices certified by CARB. Any emissions control device used by the contractor shall achieve emissions reductions that are no less than what could be achieved by a Level 3 diesel emissions control strategy for a similarly sized engine as defined by CARB regulations. In addition, construction equipment shall incorporate, where feasible, emissions savings technology such as hybrid drives and specific fuel economy standards. In the event that any equipment required under this mitigation measure is not available, provide documentation as information becomes available. A copy of each unit's certified tier specification, BACT documentation, and CARB or

SCAQMD operating permit at the time of mobilization of each applicable unit of equipment shall be provided.

Noise

18. Construction hours will be consistent with the City of Los Angeles regulations, which limit construction activities to the hours between 7:00 am and 9:00 pm Monday through Friday, and 8:00 am to 6:00 pm on Saturdays and national holidays. No construction activity will take place on Sunday.
19. Muffled construction equipment will be used whenever possible.
20. Construction staging areas will be located as far as possible from nearby uses.
21. As needed, a temporary barrier of no less than 8 feet in height made of solid wood or other similar material will be provided and placed strategically along the construction site's boundaries to protect the nearby residential uses, the existing student residences, the Anna Bing Arnold Children's Center, and LACHSA from construction noise.

Traffic and Parking

22. A flag person will be employed as needed at various intersections to direct traffic when heavy construction vehicles enter the campus.
23. Construction and haul trucks will use the City of Los Angeles designated truck routes to travel to and from the site.
24. Construction-related truck traffic will be scheduled to avoid peak travel time on the I-10 and I-710 freeways, as feasible.
25. Hauling of equipment and materials and other truck trips during construction will be scheduled during non-peak hours, to the extent feasible.

Solid Waste

26. Construction inert materials, including vegetative matter, asphalt, concrete, and other recyclable materials will be recycled to the extent feasible.

Level of Impact After Mitigation

With implementation of the identified mitigation measures most of the short-term construction impacts will be reduced to a less than significant level. However, since the peak construction day NO_x emissions may exceed the SCAQMD's threshold, this impact is considered to be significant. To reduce potential NO_x emissions below the SCAQMD threshold amount would result in prolonging construction of the project so that less of the construction is completed each day, which will then would result in less NOx emissions per day. Prolonging construction is not a viable mitigation measure since the longer it takes to construct the project's facilities, the longer all construction-related impacts would be present, while the total amount of construction-related emissions, including NOx emissions, would remain the same but be spread-out over a longer period of time.

4.0 Alternatives to the Project

The following discussion considers alternative scenarios to the North Campus project. Through comparison of these alternatives, the relative advantages of each can be weighed and analyzed.

The CEQA Guidelines state that an EIR need not consider every conceivable alternative to the project [Section 15126.6(a)], or an alternative whose effect cannot be reasonably ascertained and whose implementation is remote and speculative [Section 15126.6(f)(3)]. The Guidelines require that a range of alternatives be addressed "governed by 'a rule of reason' that requires the EIR to set forth only those alternatives necessary to permit a reasoned choice." The discussion of alternatives must focus on alternatives that are potentially feasible and capable of achieving major project objectives while avoiding or substantially lessening any significant environmental effects of the project [CEQA Guidelines, Section 15126.6(f)].

The primary objectives of the North Campus project are to:

- Enhance the provision of student housing on campus to help accommodate the strong student demand for on-campus housing

- Enhance the provision of student housing on campus since living on campus increases students' academic success and improves graduation rates

- Provide student housing at appropriate locations to create a sense of place and an overall identity representing the student residential community on campus

- Provide needed sport and recreation facilities for University students, including students living on campus

- Provide opportunities for students to access research, scholarship, internship, and job opportunities with a professional sports organization; opportunities to use the state-of-the-art soccer training facility by campus student athletes to advance the University's athletic and educational goals; and opportunities for additional resources to support University programs, including the development of a Sports Management degree program

The project impacts analyzed in this EIR were found to be either beneficial and either less than significant or mitigated to less than significant levels with mitigation measures identified in the EIR. The only significant impact associated with the project that cannot be fully mitigated is the potential short-term and intermittent project-specific and cumulative peak day construction emissions of NOx during construction of project's facilities. Thus, the following analysis focuses on alternatives with respect to achieving the project's objectives, as well as an alternative that can reduce the construction-related peak day emissions. Environmental effects after full implementation of mitigation measures are used as a basis for comparison.

Alternative 1: No Project Alternative

The No Project alternative, required to be evaluated in the EIR, considers "existing conditions…as well as what would be reasonably expected to occur in the foreseeable future if the project were not approved, based on current plans and consistent with available infrastructure and community services" [CEQA Guidelines Section 15126.6(e)(2)].

Pursuant to this alternative the project site would remain in its current condition and would continue its current use as surface parking lots and a vacant sports field north of Paseo Rancho Castilla (North Field). This alternative would not achieve any of the project's primary objectives.

Alternative 2: Smaller Project

The North Campus project will provide student housing with 1,500 beds. Pursuant to this alternative, the student housing facility would only provide 750 beds. As with the project, all other project components, including an associated dining facility, new sport and recreation fields, improved North Field practice soccer field with a training facility, and a parking structure would also be developed on the project site.

A new student residence hall would be constructed on the site at the same location as planned for the project. With half of the project's beds, the buildings would be two to three-story, and as with the project, the change from the surface parking to a visually attractive student residential community would improve the visual character of the site. As with the project, lighting effects associated with new South Fields sport and recreation fields would be less than significant.

The construction of new facilities under this alternative would generate short-term and intermittent air pollutant emissions. With only half of the student beds provided under this alternative, the project-specific peak construction day emissions of NOx under this alternative would likely not exceed the SCAQMD threshold for the peak day construction NOx emissions, but would still result in a significant construction-related cumulative impact on air quality.

Therefore, providing only 750 student beds, while reducing the project-specific peak day construction air quality construction significant impact, would not avoid nor substantially reduce the project's potentially significant cumulative impact associated with peak day construction emissions. Also, the provision of half of the needed student beds pursuant to this alternative would substantially reduce the project's beneficial long term impacts on air quality, greenhouse gas (GHG), traffic, and circulation resulting from a reduction daily student commute trips and the associated vehicular emissions. Furthermore, this alternative would only partially achieve primary project objectives of enhancing the provision of student housing on campus to help accommodate the strong student demand for on-campus housing; enhancing the provision of student housing since living on campus increases students' academic success and improves graduation rates, and providing student housing at appropriate locations to create a sense of place and an overall identity representing the student residential community on campus. Furthermore, with providing half of the needed student housing, this alternative would also result in the need to construct additional student housing on campus later on, which would result in additional peak day construction emissions occurring later in time. Therefore, overall, this alternative is considered environmentally inferior to the project.

Alternative 3: Additional Student Housing

This alternative considers providing additional student housing at the North Campus project site to accommodate 2,500 students. With a high demand for on campus housing for freshmen and sophomore students, the need for additional student housing on campus has been acute. As with the project, all other project components, including an associated dining facility, new sport and recreation fields, improved North Field practice soccer field with a training facility, and a parking structure would also be developed on the project site.

Pursuant to this alternative, the new student housing facilities would be five to ten story tall. With more student housing at the site, a larger campus student residential community that includes housing, dining, and recreation, would be created. It would also create a more defined visual character and a stronger overall image representing the student residential community merging with the adjoining existing student residence halls immediately to the west. As with the project, the change from the surface parking to a visually attractive student residential community would improve the visual character of the site. As with the project, lighting effects associated with new South Fields sport and recreation fields would be less than significant.

The construction of new facilities under this alternative would proceed over time in phases and each phase would generate short-term and intermittent air pollutant emissions from construction activities. As with project, the peak construction day emissions of NOx under this alternative may exceed the SCAQMD threshold, resulting in a significant impact.

As with the project, students living in the new student residences would not be allowed to have cars. Thus the provision of more on-campus student housing under this alternative would further reduce student commute trips by 2,591 daily trips, or nearly 50% more than the project, resulting in a greater beneficial impact on the roadway system serving the campus. This alternative would increase the reduction in vehicle miles traveled (VMTs) to 38,891 VMTs per day, compared with the project's VMTs reduction of 25,801 VMTs per day. With a greater reduction in VMTs, the magnitude of the beneficial impact of reducing vehicular emissions of air pollutants and GHG within the South Coast Air Basin would be significantly greater, as summarized in Table 16.

Table 16
Additional Student Housing Alternative Operational Emissions

	Reactive Organic Gases (ROG) pounds/day	Oxides of Nitrogen (NO_X) pounds/day	Carbon Monoxide (CO) pounds/day	Fine Particulate Matter (PM_{10}) pounds/day	Ultrafine Particulate Matter ($PM_{2.5}$) pounds/day	GHG (CO_2e) metric tons/year
Area Sources	22	neg.	72	neg.	neg.	-
Energy	neg.	4	3	neg.	neg.	-
Vehicular Emissions	4	9	40	8	2	-
Subtotal	27	14	115	9	2	4,656
VMT Reduction *	-35	-24	-320	-neg.	-neg.	-1,532
Subtotal	-8	-10	-205	9	2	3,124
Exceeds Threshold?	**No**	**No**	**No**	**No**	**No**	**-**

*CalEEMod model Version 2016.3.1.

With more students living on campus instead of commuting would also eliminate more peak hour trips on the street and roadway network serving the campus, substantially increasing the magnitude of this beneficial effect on traffic and circulation.

As with the project, the new facilities on the site would be connected to the campus' utility grid that has the capacity to serve additional facilities. The fire and police protection services for the campus would also serve the North Campus additional student housing facilities within the site.

Therefore, providing additional student housing as part of the North Campus project would not increase the project's significant impacts or result in new significant impacts. However, providing additional on campus student housing would substantially increase the beneficial impacts of reducing student commute trips, vehicle miles travelled, and the associated air pollutant and GHG emissions. Furthermore, this alternative would achieve to a much greater extent all of the primary project objectives of enhancing the provision of student housing on campus to help accommodate the strong student demand for on-campus housing; enhancing the provision of student housing on campus since living on campus increases students' academic success and improves graduation rates; providing student housing at appropriate locations to create a sense of place and an overall identity representing the student residential community on campus; and providing needed sport and recreation facilities for University students, including students living on campus.

Environmentally Superior Alternative

Among the alternatives considered, the Additional Student Housing Alternative could be considered environmentally superior to the project because while it would result in the same peak construction day air quality impact as that associated with the North Campus project, it would significantly increase the beneficial air quality, GHG, and traffic and circulation effects as well as achieve the project's primary objectives to a much greater extent. However, since funding for additional student housing is not in place, this alternative may not be fiscally viable at this time.

5.0 Cumulative and Long-term Effects

Cumulative Effects

The CEQA Guidelines (Section 15355) define a cumulative impact as “two or more individual effects which, when considered together, are considerable or which compound or increase other environmental impacts.” The Guidelines [Section 15130(a)(1)] further state that “an EIR should not discuss impacts which do not result in part from the project.”

Section 15130(a) of the CEQA Guidelines provides that “[A]n EIR shall discuss cumulative impacts of a project when the project’s incremental effect is cumulatively considerable...” Cumulatively considerable, as defined in Section 15065(a)(3), “means that the incremental effects of an individual project are significant when viewed in connection with the effects of past projects, the effects of other current projects, and the effects of probable future projects.”

There are nine related projects within the proximity of the North Campus Project (as shown in Table 7). The list of related projects was developed based on information provided by the Los Angeles Department of City Planning, LADOT, and City of Alhambra Services Department. Even though the development timeframe of many of these related projects is uncertain, to address the “worst-case” scenario, the cumulative effects resulting from all these related projects were conservatively included the analysis.

Table 17
Related Projects

#	Address	Land Use	Size
1	5479 E Huntington Dr. [a]	Car Wash Restaurant Retail	1 1,916 sf 1,880 sf
2	2520 Eastern Ave. [a]	School Apartments Café	530 students 20 du 2,320 sf
3	1925 N Marianna Ave. [a]	Warehouse	196,000 sf
4	2730 N Onyx Dr. [a]	Single Family Homes	31 du
5	117 S Raymond Avenue [b]	Office	6,500 sf
6	2300 W Commonwealth Ave., 307-309 Date Ave. [b]	Retail Restaurant	6,040 sf 14,760 sf
7	1000 S Meridian Ave. [b][c]	Retail Office	136,000 sf 79,000 sf

8	1428 S Marengo Ave. [b][c]	Townhome Nursing Facility Retail Medical Office	126 du 14,600 sf 12,490 sf 18,000 sf
9	2400 S Fremont Ave. [b]	Townhome Single Family Homes	28 du 42 du

Notes:
sf: square feet
du: dwelling units
[a] Related projects list provided by LADOT, October 2016.
[b] Related projects list provided by City of Alhambra, October 2016.
[c] Project under environmental review and not yet approved as of October 2016.

Traffic and Circulation

The traffic analysis in this EIR (see Section 3.3) addresses both project-specific and cumulative traffic and circulation impacts that account for background traffic associated with long-term regional growth and addition of traffic generated by related projects.

Based on the traffic analysis, the project and cumulative traffic impact will be less than significant. As discussed in Section 3.3, Traffic and Circulation, the North Campus project will result in a beneficial impact of reducing commute vehicular trips and vehicle miles travelled (VMTs) by providing student housing on campus. Therefore, the project will not contribute to a significant cumulative traffic impact.

Aesthetics

As discussed in this EIR (Section 3.5, Aesthetics), the North Campus project will result in a beneficial aesthetic effect to the existing visual character of the project site, which currently consists of surface parking and an unimproved sport field that is not being used. The project site is located fully within the campus interior and its visual effects are mostly confined to the campus. The project's new South Fields sport and recreation fields lighting will be designed in compliance with NCAA Best Lighting Practices, with light and glare contained within 100 feet of the fields and fully within the campus, resulting in a less than significant light and glare impact. Therefore, the North Campus project will not contribute to a significant cumulative aesthetic impact.

Air Quality and GHG

As discussed in this EIR (Section 3.2, Air Quality and Greenhouse Gases (GHG)), the North Campus project - which includes provision of on-campus student housing that will reduce vehicular trips and vehicle miles travelled and the associated vehicular air pollutants, will result in an overall beneficial impact on air quality as it will result in a net reduction in NOx, $PM_{10,}$ and

$PM_{2.5}$ emissions, substantial reduction in CO and NOx emissions, and a net reduction in GHG emissions. Therefore, the project will not contribute to a significant air quality cumulative impact.

Fire and Police Protection Services

The North Campus project is located within the Cal State LA campus and will be served by the University Police Department. All project's facilities projects will incorporate comprehensive safety and security measures in new facilities, including alarm systems, safety and security lighting, and other features, and will provide all required emergency access. As appropriate, the project will also contribute to appropriate staffing of the University Police Department. The nine related projects are located in the Cities of Los Angeles and Alhambra, and thus will be served by the police departments of these Cities. In compliance with existing regulations, each of the related projects will comply with safety and security requirements of the City where it is located. Therefore, the North Campus project will not result in a significant cumulative impact.

The North Campus project and the related projects located in Los Angeles will be served by the City of Los Angeles Fire Department, and the related projects located in Alhambra will be served by the City of Alhambra Fire Department. In compliance with existing requirements of the Fire Departments, all required fire safety features, including smoke detectors and full sprinkler systems, fire lines and hydrants with appropriate fire flows, and unobstructed fire emergency access will be incorporated into the project and the related projects.

Therefore, while the provision of the North Campus project facilities together with related projects will result in an incremental increase in demand for police and fire protection services, this increase will be minimized through implementation of comprehensive safety and security measures, and cumulative impact will be less than significant.

Utilities and Service Systems

The North Campus project and the related projects include the required provision of all necessary utility infrastructure and connections to the existing water, sewer, and drainage systems. The North Campus project and the related projects will also implement all mandated water conservation measures including ultra-low-flow toilets, urinals, taps, water conservation plumbing, and other required water conservation measures. With required implementation of stormwater management system, including utilization of best management practices (BMPs), the impact on drainage system and water quality will be less than significant. The North Campus project will also implement waste reduction, diversion, and recycling programs, and the related project will implement recycling programs required by their jurisdictions, which will significantly reduce the amount of waste disposed at landfills. With these components and payment of all legally required capital facilities fees, cumulative impact will be less than significant.

Short-term Construction Impacts

The North Campus project is anticipated to be completed and operational by 2021. The nine related projects do not have specific completion dates and the status of these projects vary. Due to the uncertainty of the construction schedules of the related projects, the air quality analysis was conducted assuming concurrent construction with the North Campus project to address the potential "worst-case" scenario. The potential such "worst-case" cumulative peak day emissions during this short overlap period are summarized in Table 18.

Table 18
Cumulative Peak Day Construction Emissions
(pounds per day)

	Reactive Organic Gases (ROG)	**Oxides of Nitrogen (NO_x)**	**Carbon Monoxide (CO)**	**Fine Particulate Matter (PM_{10})**	**Fine Particulate Matter ($PM_{2.5}$)**	**GHG (CO_2e)**
Related Projects	6	60	42	12	6	10,844
North Campus Project	20	146	141	47	27	20,864
Total	**26**	**206**	**183**	**59**	**33**	**31,708**
SCAQMD Threshold	75	100	550	150	55	-
Exceeds Threshold?	**No**	**Yes**	**No**	**No**	**No**	**-**

Note:
The higher of winter or summer emissions are shown.
Based on daily maximum construction emissions during construction years.
Source: CalEEMod Version 2016.3.1.

As shown, short-term peak day construction emissions will be below the SCAQMD threshold amounts for criteria pollutants, except for NO_x emissions. If construction of each and every related project were to overlap with the North Campus project's construction, peak construction day NO_x emissions would exceed the threshold amount under this "worst case" scenario. Thus, under this scenario the potential impact is considered significant. As part of the mitigation, the North Campus project and is required to implement a range of mitigation measures to reduce construction noise, solid waste, traffic and other site-specific impacts (see Section 3.7, Construction Effects). Similarly, the construction of the related projects will have to comply with of the Cities of Los Angeles and Alhambra regulations pertaining to construction activities. However, while the implementation of these measures will reduce cumulative emissions, the peak day emissions if there is an overlap of construction periods among the related projects may still exceed the SCAQMD threshold amount for NO_x. Thus, the short-term cumulative construction impact is considered potentially significant.

Growth-Inducing Impacts

The CEQA Guidelines [Section 15126.2(d)] require a discussion of "… ways in which the proposed project could foster economic or population growth … in the surrounding environment," including the project's potential to remove obstacles to population growth. For example, the extension of infrastructure may encourage or facilitate other activities that could significantly affect the environment.

The North Campus project provides for additional student housing, practice sport and recreation fields, improved soccer field with a training facility, and a parking structure replacing existing surface parking on campus. The project does not provide housing for residents of the city or the surrounding areas that could induce population growth, and will not result in an increase in student enrollment at Cal State LA campus. The project includes all necessary improvements to the existing infrastructure, and no excess capacity that could induce growth will be provided.

Significant Irreversible Effects

Implementation of the North Campus project will commit non-renewable resources during construction and operation. During construction, the use of building materials (e.g., aggregate, sand, cement, steel, etc.) and energy resources (e.g., gasoline, diesel fuel, electricity) largely would be irreversible and irretrievable. Energy will be consumed in processing building materials and for transporting these materials and construction workers to the project site.

The project facilities can be expected to have a life span of approximately 50 years. Resources consumed during construction of the project (such as fuel and building materials) will be used in quantities proportional to similar student housing development and sport fields in Southern California and are not considered a wasteful use of resources. The nonrenewable resources consumed for this project are comparable to the use of resources for student housing, sport fields, and parking facilities at other major universities and colleges throughout the region and the country.

6.0 Preparers of the EIR

Lead Agency

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7.0 Response to Comments on Draft EIR

The Draft EIR for North Campus project was made available for a 45-day public review and comment period pursuant to the State CEQA Guidelines, Sections 15105 and 15087, beginning on March 3, 2017 and ending on April 17, 2017. The University also held a public meeting to receive comments on the Draft EIR on March 21, 2017 on campus at Facilities Planning, Design, and Construction Department, Corporation Yard - Building #23. No comments about the Draft EIR were received at the meeting.

Written comments received during the public review period for the Draft EIR are then presented in chronological order by the date of correspondence or receipt of the comment letter. Each comment letter is designated a number, and individual comments within each letter are also numbered. Responses to the comments are provided. Appropriate revisions to the Draft EIR in response to comments and information received are identified by shading the revised text in the Final EIR, as illustrated in this sentence.

Written comments were received from the following persons:

1. Lijin Sun, J.D., Program Supervisor, CEQA IGR, Planning, Rule Development & Area Sources, South Coast Air Quality Management District. March 29, 2017.

2. Board of Directors, Golden State Environmental Justice Alliance. April 13, 2017.

3. Dianna Watson, Chief, LD-IGR/CEQA Review Branch, Caltrans District 7. April 17, 2017.

4. Charles C. Holloway, Manager of Environmental Planning and Assessment, Los Angeles Department of Water and Power. Received April 24, 2017.

5. Scott Morgan, Director, State Clearinghouse. Received April 24, 2017.

1. Lijin Sun, J.D., Program Supervisor, CEQA IGR, Planning, Rule Development & Area Sources, South Coast Air Quality Management District. March 29, 2017.

1-1. The construction of the proposed parking structure that replaces the existing surface parking lots does not involve demolition, extensive excavations, or prolonged construction activities. The Draft EIR identified extensive mitigation measures, as follows:

1. During high wind episodes (wind speeds exceeding a sustained rate of 25 miles per hour) grading or other high-dust generating activities will be suspended.
2. During smog alerts, all construction activities will be suspended.
3. All construction equipment will be properly tuned.
4. Diesel particulate filters are installed on diesel equipment and trucks and low sulfur diesel will be used for construction equipment.
5. Gasoline, butane, or electric power construction equipment will be used if feasible.
6. To reduce emissions from idling, the contractor shall ensure that all equipment and vehicles not in use for more than 5 minutes are turned off, whenever feasible.
7. Low VOC-content asphalt and concrete will be utilized to the extent possible.
8. All stockpiles will be covered with tarps or plastic sheeting.
9. Speeds on unpaved roads will be reduced below 15 miles per hour.
10. All haul trucks that carry contents subject to airborne dispersal will be covered.
11. All access points to the site used by haul trucks will be kept clean during site earthwork.
12. Exposed surfaces will be watered regularly as needed.
13. All access points used by haul trucks will be kept clean during earthwork.
14. Electricity from power poles rather than temporary diesel or gasoline generators will be used to the extent available.
15. As needed, campus outdoor activities in the site vicinity will be limited during high-dust and other heavy construction activities.
16. Throughout the construction period, the ventilation systems in the existing student residence halls adjacent to the project site will be tested and as needed, put on a more frequent maintenance schedule to ensure that they are functioning properly and providing proper ventilation.

In addition, to further reduce fugitive dust during construction of the parking structure, the following measure has been included in the Final EIR:

17. During construction of the parking structure, disturbed areas within the construction site will be watered every 3 hours.

Furthermore, while the University has already been using newer diesel trucks and Tier 4 standards for diesel-powered equipment in construction of the campus facilities and improvements, the following additional mitigation measures have been included in the Final EIR:

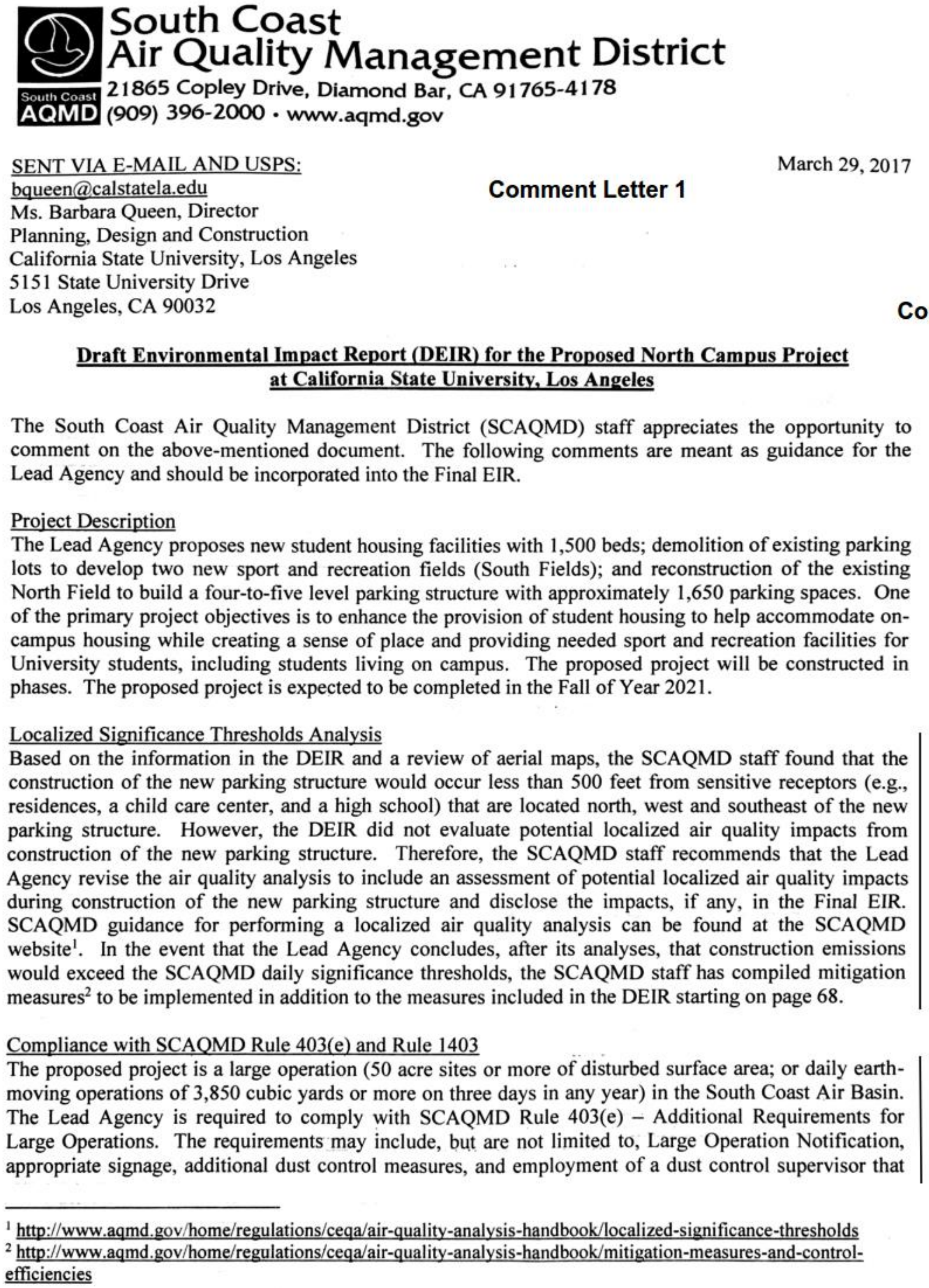
The University will continue to:

1. Include in all construction contracts the requirement to use 2010 and newer diesel haul trucks (e.g., material delivery trucks and soil import/export). In the event that that 2010 model year or newer diesel trucks cannot be obtained, provide documentation as information becomes available and use trucks that meet EPA 2007 model year NOx emissions requirements.

2. Include in all construction contracts the requirement that all off-road diesel-powered construction equipment greater than 50 hp shall meet Tier 4 off-road emission standards at a minimum. In addition, if not already supplied with a factory-equipped diesel particulate filter, all construction equipment shall be outfitted with BACT devices certified by CARB. Any emissions control device used by the contractor shall achieve emissions reductions that are no less than what could be achieved by a Level 3 diesel emissions control strategy for a similarly sized engine as defined by CARB regulations. In addition, construction equipment shall incorporate, where feasible, emissions savings technology such as hybrid drives and specific fuel economy standards. In the event that any equipment required under this mitigation measure is not available, provide documentation as information becomes available. A copy of each unit's certified tier specification, BACT documentation, and CARB or SCAQMD operating permit at the time of mobilization of each applicable unit of equipment shall be provided.

1-2. The project does not involve demolition of any structures. The project is not a large operation - it does not involve 50 acres or more of disturbed surface area or daily earth moving operations of 3,850 cubic yards or more. The project involves approximately 18.5 acres of total area, with approximately half of this area involving improvements to the existing sports field and new sports and recreation fields. The University has been and will continue to comply with all applicable rules and regulations, including Rule 403.

1-3. As indicated in Response 1-1, the recommended additional construction mitigation measures have been included in the Final EIR.



South Coast
Air Quality Management District
21865 Copley Drive, Diamond Bar, CA 91765-4178
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Comment Letter 1

March 29, 2017

SENT VIA E-MAIL AND USPS:
bqueen@calstatela.edu
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Planning, Design and Construction
California State University, Los Angeles
5151 State University Drive
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Comment

Draft Environmental Impact Report (DEIR) for the Proposed North Campus Project at California State University, Los Angeles

The South Coast Air Quality Management District (SCAQMD) staff appreciates the opportunity to comment on the above-mentioned document. The following comments are meant as guidance for the Lead Agency and should be incorporated into the Final EIR.

Project Description

The Lead Agency proposes new student housing facilities with 1,500 beds; demolition of existing parking lots to develop two new sport and recreation fields (South Fields); and reconstruction of the existing North Field to build a four-to-five level parking structure with approximately 1,650 parking spaces. One of the primary project objectives is to enhance the provision of student housing to help accommodate on-campus housing while creating a sense of place and providing needed sport and recreation facilities for University students, including students living on campus. The proposed project will be constructed in phases. The proposed project is expected to be completed in the Fall of Year 2021.

Localized Significance Thresholds Analysis

Based on the information in the DEIR and a review of aerial maps, the SCAQMD staff found that the construction of the new parking structure would occur less than 500 feet from sensitive receptors (e.g., residences, a child care center, and a high school) that are located north, west and southeast of the new parking structure. However, the DEIR did not evaluate potential localized air quality impacts from construction of the new parking structure. Therefore, the SCAQMD staff recommends that the Lead Agency revise the air quality analysis to include an assessment of potential localized air quality impacts during construction of the new parking structure and disclose the impacts, if any, in the Final EIR. SCAQMD guidance for performing a localized air quality analysis can be found at the SCAQMD website[1]. In the event that the Lead Agency concludes, after its analyses, that construction emissions would exceed the SCAQMD daily significance thresholds, the SCAQMD staff has compiled mitigation measures[2] to be implemented in addition to the measures included in the DEIR starting on page 68. 1-1

Compliance with SCAQMD Rule 403(e) and Rule 1403

The proposed project is a large operation (50 acre sites or more of disturbed surface area; or daily earth-moving operations of 3,850 cubic yards or more on three days in any year) in the South Coast Air Basin. The Lead Agency is required to comply with SCAQMD Rule 403(e) – Additional Requirements for Large Operations. The requirements may include, but are not limited to, Large Operation Notification, appropriate signage, additional dust control measures, and employment of a dust control supervisor that 1-2

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[1] http://www.aqmd.gov/home/regulations/ceqa/air-quality-analysis-handbook/localized-significance-thresholds

[2] http://www.aqmd.gov/home/regulations/ceqa/air-quality-analysis-handbook/mitigation-measures-and-control-efficiencies

has successfully completed the Dust Control in the South Coast Air Basin training class[3]. The Final EIR should contain a discussion to demonstrate compliance with SCAQMD Rule 403(e).

Based on a review of the project description in the DEIR, the proposed project would include demolition activities where asbestos could be encountered. Therefore, the Lead agency should discuss and provide additional information in the Final EIR to demonstrate compliance with SCAQMD Rule 1403 – Asbestos Emissions from Demolition/Renovation Activities. 1-2 Cont.

Additional Mitigation Measures

CEQA requires that all feasible mitigation measures that go beyond what is required by law be utilized to minimize or eliminate any significant impacts. Pursuant to CEQA Guidelines §15126.4 (a)(1)(D), any impacts resulting from mitigation measures must also be discussed. In the DEIR, the Lead Agency found that emissions from construction would exceed SCAQMD's CEQA regional threshold for NOx. After incorporating mitigation measures[4], the impact for NOx would remain significant and unavoidable. To further reduce NOx emissions from construction, the SCAQMD staff recommends that the Lead Agency include in the Final EIR additional construction mitigation measures provided below: 1-3

1. Include in all construction contracts the requirement to use 2010 and newer diesel haul trucks (e.g., material delivery trucks and soil import/export). In the event that that 2010 model year or newer diesel trucks cannot be obtained, provide documentation as information becomes available and use trucks that meet EPA 2007 model year NOx emissions requirements.[5]

2. Include in all construction contracts the requirement that all off-road diesel-powered construction equipment greater than 50 hp shall meet Tier 4 off-road emission standards at a minimum. In addition, if not already supplied with a factory-equipped diesel particulate filter, all construction equipment shall be outfitted with BACT devices certified by CARB. Any emissions control device used by the contractor shall achieve emissions reductions that are no less than what could be achieved by a Level 3 diesel emissions control strategy for a similarly sized engine as defined by CARB regulations. In addition, construction equipment shall incorporate, where feasible, emissions savings technology such as hybrid drives and specific fuel economy standards. In the event that any equipment required under this mitigation measure is not available, provide documentation as information becomes available. A copy of each unit's certified tier specification, BACT documentation, and CARB or SCAQMD operating permit at the time of mobilization of each applicable unit of equipment shall be provided.

More information on mitigation measures as guidance to the Lead Agency are available on the SCAQMD CEQA Air Quality Handbook website at: http://www.aqmd.gov/home/regulations/ceqa/air-quality-analysis-handbook[6].

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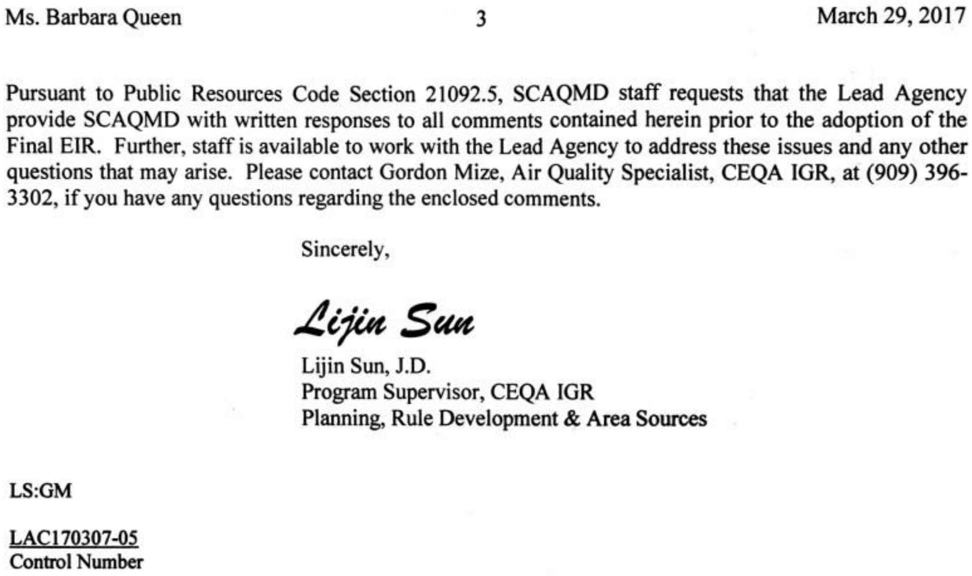
[3] SCAQMD Compliance and Enforcement Staff Contact Information for Rule 403 Large Operations: (909) 396-2608 or by e-mail at dustcontrol@aqmd.gov.

[4] DEIR, Page 68 – Mitigation Measures and Table S-1 Summary of Environmental Impacts and Mitigation Measures.

[5] Based on a review of the California Air Resources Board's diesel truck regulations, 2010 model year diesel haul trucks should have already been available and can be obtained in a successful manner for the project construction California Air Resources Board. March 2016. Available at: http://www.truckload.org/tca/files/ccLibraryFiles/Filename/000000003422/California-Clean-Truck-and-Trailer-Update.pdf (See slide #23).

[6] Chapter 11 of the SCAQMD CEQA Air Quality Handbook. Copies of the Handbook are available from the SCAQMD's Subscription Services Department by calling (909) 396-3720.



Ms. Barbara Queen 3 March 29, 2017

Pursuant to Public Resources Code Section 21092.5, SCAQMD staff requests that the Lead Agency provide SCAQMD with written responses to all comments contained herein prior to the adoption of the Final EIR. Further, staff is available to work with the Lead Agency to address these issues and any other questions that may arise. Please contact Gordon Mize, Air Quality Specialist, CEQA IGR, at (909) 396-3302, if you have any questions regarding the enclosed comments.

Sincerely,

Lijin Sun

Lijin Sun, J.D.
Program Supervisor, CEQA IGR
Planning, Rule Development & Area Sources

LS:GM

LAC170307-05
Control Number

2. Board of Directors, Golden State Environmental Justice Alliance. April 13, 2017.

2-1. The Draft EIR summary and project description sections provided the following information about the project's location, including information about the 710 freeway: "The project site is surrounded by the Cal State LA campus facilities, including existing student housing to the west, surface parking and parking structure south of Paseo Rancho Castilla, and the Long Beach freeway (I-710) to the east." A map showing the project's location in relation to the 710 freeway and the surrounding area has been included in the Final EIR.

2-2. As stated in the comment "The four to five-level parking structure will provide approximately 1,650 parking spaces, including up to 100 new parking spaces". Therefore, the Draft EIR specifically stated that the parking structure will have four to five levels. As stated in the comment "the parking structure will provide approximately 1,650 parking spaces, including up 100 new parking spaces". Therefore, the Draft EIR provided information about the number of parking spaces, and the number of net new parking spaces – which is up to 100 spaces. As stated in the Draft EIR: "The displaced surface parking will be accommodated in a new parking structure located next to the existing Parking Structure C, on the site that is currently used as a surface parking lot". Therefore the Draft EIR provided information that the parking structure will provide replacement parking for the existing surface parking lots which will be displaced, and up to 100 net new parking spaces.

2-3. The information that the area for the proposed facilities sites encompasses approximately 18.5 acres has been included in the Final EIR. As illustrated in Figure 1 in the Draft EIR, the proposed student housing does not adjoin the 710 freeway. As the proposed student housing will be for freshmen and sophomore students it is not a permanent residential housing where people live for many years or decades, while the students will be at this location for a maximum of two years. However, since it is located in the proximity of the freeway, the design features provided in the comment will be included in the design of the student housing facility. The following information that the design of the student housing will include, but not be limited to, has been included in the Final EIR:

1. Student housing will incorporate air filtration systems with filters meeting or exceeding the ASHRAE 52.2 Minimum Efficiency Reporting Value (MERV) of 11.
2. Open space areas (e.g., courtyards, patios, balconies) will be located as far from the freeway as possible.
3. Vegetation will be planted between student housing and the 710 freeway.
4. The floor plan will be designed to minimize operable windows and building entries along the freeway side of the building.
5. Mechanical and ventilation systems with intakes located as far from the freeway as possible will be utilized.

2-4. As noted in the comment, the Draft EIR provided the following information: “The proposed student housing and South Fields will replace existing surface parking lots resulting in an improved visual character of the north campus area that complements and is compatible with the existing student housing clustered immediately west of the proposed new South Fields sport and recreation fields.” The Draft EIR also provided the following information immediately following: “Merging the new student housing with the existing student residence halls will create a larger campus residential community that includes housing, dining, and recreation. It will also create a visual character and an overall image representing the student residential community. Variations in height between the existing two to three-story student residence halls and the project’s five-story residence halls together with variations in architectural styles, and provision of open space in form of new soccer fields will provide visual articulation and enrich the visual character and image of this greater student community within the north campus area, and improve the overall visual character of the site.” The architectural design of the University facilities has been, and will continue to be specific to the specific characteristics of the facility’s location and function without duplicating architectural styles - which could lead to visual monotony and aesthetic standardization. While the exact architectural design is part of a final design process for the project’s facilities, the information about the shape, location, height, and relation to surrounding facilities and aesthetics provided in the Draft EIR sufficiently informs about the overall visual effect of the project.

2-5. Please refer to Response 2-2. As discussed in the Draft EIR, the parking structure will provide up to 100 new parking spaces only. As analyzed in the traffic study, with the provision of up to 100 new parking spaces, the project will result in a reduction in daily vehicular trips and VMTs. The comment that “Adding 1,500 beds will increase CSULA's student capacity, but not many live on-campus beyond sophomore year as evidenced by the proposed student housing for freshman and sophomores. The new housing and parking structure will increase the number of VMT to the project site once the students no longer live on campus and become commuters” is incorrect. As freshmen and sophomore students become upper level students and leave student housing, they are replaced by incoming new freshmen and sophomore students – who would otherwise had to commute to campus from their residences outside the campus. As further discussed in the Draft EIR, the project will not result in an increase in student enrollment at Cal State LA campus.

2-6. The project will not have an adverse impact on LOS and the project will not increase traffic. Tables 7 and 8 in the Draft EIR Traffic Study (Appendix C) and Table 9 in Section 3.3, Traffic and Circulation (see below), clearly show that the project will result in a decrease in traffic and an improvement in volume/capacity ratio with a resulting improvement in LOS. All of the tables display the results of traffic analyses that show that the project will not create a significant impact at any of the study intersections, including the intersection of Paseo Rancho Castilla/Eastern Avenue & Eastern Avenue/State University Drive. This location will continue to operate at LOS E in the AM peak hour and LOS F in the PM peak hour, same as under the future without project conditions; and as shown, the project will result in a beneficial effect of reducing volume to capacity ratio at this intersection and at 9 other study intersections. A typographical error in text on page 46 has been corrected to: “Paseo Rancho

Castilla/Eastern Avenue & Eastern Avenue/State University Drive – LOS E during the AM peak hour and LOS F during the PM peak hour".

Table 9
Future Plus Project Intersection Peak Hour Level of Service

No.	Intersection	Peak Hour	Future Without Project		Future Plus Project			
			V/C or Delay	LOS	V/C or Delay	LOS	Change in V/C	Impact
1.	Paseo Rancho Castilla/Eastern Avenue & Eastern Avenue/State University Drive	AM PM	0.997 1.067	E F	0.933 1.062	E F	-0.004 -0.005	NO NO
2. [a]	Eastern Avenue & I-10 Eastbound On-Ramp	AM PM	0.376 0.421	A A	0.371 0.418	A A	-0.005 -0.003	NO NO
3. [a]	Eastern Avenue & I-10 Eastbound Ramps/Ramona Boulevard	AM PM	0.688 0.634	B B	0.681 0.628	B B	-0.007 -0.006	NO NO
4. [b]	Campus Road & Circle Drive	AM PM	50.8 50.8	F F	50.1 50.1	F F	-- --	-- --
5. [a]	Campus Road & I-10 Westbound Off-Ramp/State University Drive	AM PM	0.490 0.361	A A	0.485 0.351	A A	-0.005 -0.010	NO NO
6.	Campus Road & Ramona Boulevard	AM PM	0.751 0.491	C A	0.744 0.480	C A	-0.007 -0.011	NO NO
7.	Paseo Rancho Castilla & Lansdowne Avenue	AM PM	0.259 0.340	A A	0.257 0.332	A A	-0.002 -0.008	NO NO
8. [b]	Paseo Rancho Castilla & Circle Drive	AM PM	15.7 15.7	C C	15.1 15.1	C C	-- --	-- --
9.	Mariondale Avenue & Valley Boulevard	AM PM	0.493 0.538	A A	0.456 0.515	A A	-0.037 -0.023	NO NO
10. [b]	Mariondale Avenue & Paseo Rancho Castilla	AM PM	17.3 17.3	C C	16.2 16.2	C C	-- --	-- --
11. [a][c]	I-710 Southbound On-Ramp & Valley Boulevard	AM PM	1.058 0.817	F D	1.054 0.806	F D	-0.004 -0.011	NO NO
12. [a][c]	I-710 Northbound Off-Ramp & Valley Boulevard	AM PM	0.804 0.741	D C	0.794 0.740	C C	-0.010 -0.001	NO NO
13. [c]	Fremont Avenue & Valley Boulevard	AM PM	1.160 1.146	F F	1.157 1.143	F F	-0.003 -0.003	NO NO

Note:
Delay is measured in seconds (using HCM based Synchro)
[a] Intersection shares jurisdiction with Caltrans and analyzed based on local jurisdiction methodology.
[b] Intersection is unsignalized and analyzed based on HCM 2010 methodology via Synchro.
[c] Intersection is analyzed based on City of Alhambra LOS criteria (ICU methodology)

The traffic analysis in the Draft EIR used the CEQA-required methodology consistent with and as outlined by the Los Angeles Department of Transportation (LADOT). The analysis was reviewed by public agencies and it was verified and substantiated. The California Department of Transportation prepared a comment letter and had no comment on the LOS analysis or conclusions. The VMT analysis was provided for informational purposes, the LOS methodology used in the traffic analysis is fully consistent with LADOT CEQA requirements. Based on that methodology, the project has no significant LOS impacts and therefore requires no mitigation. The statement is incorrect when it claims that "deferred and uncertain mitigation" is involved. Since the project has no impacts and therefore requires no mitigation, there are no deferred or uncertain mitigations.

2-7. All construction of the University's facilities and improvements schedules are based on an 8-hour work day, not a 14-hour work day. The 8-hour work day is accommodated within the permitted construction time periods. Furthermore, to evaluate air quality impact, the SCAQMD requires the analysis of a peak construction day which represents a potential most intensive day of construction with maximum air pollutant emissions, no matter how long or short is the construction period.

The comment that "The EIR does not present any statement of impacts or potential mitigation measures from the overlap of construction phases. There is no statement that the construction phases will not occur concurrently" is incorrect. The Draft EIR considered the "worst case scenario", which represents the potential for overlapping construction phases and the associated air pollutant emissions from such overlapping construction, which represents the most intensive, peak construction day. As stated in the Draft EIR: "The potential overlap of construction of the South Fields, the parking structure, and the student housing facilities in 2018 is assumed to be the peak construction period for the project. The peak day emissions from construction of these facilities are analyzed as the "worst-case" peak day construction emissions, and the resultant peak day criteria pollutant emissions are summarized in Table 15." As shown below, Table 15 presents clearly information about the amounts of for ROG, NOx, CO, PM10 and PM2.5 emissions, and not just NOx as implied in the comment.

Table 15
Estimated Peak Day Criteria Air Pollutant Emissions from Construction
(pounds per day)

	Reactive Organic Gases (ROG)	**Oxides of Nitrogen (NO_x)**	**Carbon Monoxide (CO)**	**Fine Particulate Matter (PM10)**	**Fine Particulate Matter (PM2.5)**	**GHG (CO_2e)**
Peak Day Emissions	20	146	141	47	27	34,671
SCAQMD Threshold	75	100	550	150	55	-
Exceed Threshold?	**No**	**Yes**	**No**	**No**	**No**	**-**

Note:
The higher of winter or summer emissions are shown.
Based on daily maximum construction emissions during construction years.
Source: CalEEMod, Version 2016.3.1.

These construction emissions represent emissions from diesel-powered construction equipment, (as well as gasoline-powered equipment and workers trips). These emissions include diesel particulate matter (DPM) which is a major component of PM10 and PM2.5. As shown, the peak construction emissions of PM2.5 will be below the SCAQMD's threshold amount and the project will not result in a significant impact with regards with regards to PM10 and PM2.5, since as stated in the Draft EIR, the project does not involve massive construction (large construction operations involve 50 acres or more of disturbed surface area or daily earth moving operations of 3,850 cubic yards or more).

Furthermore, the University has already been using newer diesel trucks and Tier 4 standards for diesel-powered equipment in construction of the campus facilities and improvements. To ensure that such equipment will be used for North Campus project, the following measures have been included in the Final EIR:

"The University will continue to:

> 1. Include in all construction contracts the requirement to use 2010 and newer diesel haul trucks (e.g., material delivery trucks and soil import/export). In the event that that 2010 model year or newer diesel trucks cannot be obtained, provide documentation as information becomes available and use trucks that meet EPA 2007 model year NOx emissions requirements.
>
> 2. Include in all construction contracts the requirement that all off-road diesel-powered construction equipment greater than 50 hp shall meet Tier 4 off-road emission standards at a minimum. In addition, if not already supplied with a factory-equipped diesel particulate filter, all construction equipment shall be outfitted with BACT devices certified by CARB. Any emissions control device used by the contractor shall achieve emissions reductions that are no less than what could be achieved by a Level 3 diesel emissions control strategy for a similarly sized engine as defined by CARB regulations. In addition, construction equipment shall incorporate, where feasible, emissions savings technology such as hybrid drives and specific fuel economy standards. In the event that any equipment required under this mitigation measure is not available, provide documentation as information becomes available. A copy of each unit's certified tier specification, BACT documentation, and CARB or SCAQMD operating permit at the time of mobilization of each applicable unit of equipment shall be provided."

The health effects of all criteria pollutants are clearly disclosed in the Draft EIR in Table 1, "Air Pollution Standards, Sources, and Effects" on page 29, as follows.

Table 5
Air Pollution Standards, Sources, and Effects

Air Pollutant	State Standards	National Standards (Primary)	Sources	Health Effect
Ozone (O_3)	0.07 ppm, 8-hr. avg. 0.09 ppm, 1-hr. avg.	0.070 ppm, 8-hr. avg.	Atmospheric reaction of organic gases with nitrogen oxides in sunlight.	Aggravation of respiratory and cardiovascular diseases, irritation of eyes, impairment of cardiopulmonary function, plant leaf injury.
Respirable Particulate Matter (PM_{10})	50 $\mu g/m^3$, 24-hr. avg. 20 $\mu g/m^3$, AAM	150 $\mu g/m^3$, 24-hr. avg.	Stationary combustion of solid fuels, construction activities, industrial processes, industrial chemical reactions.	Reduced lung function, aggravation of the effects of gaseous pollutants, aggravation of respiratory and cardio-respiratory diseases, increased coughing and chest discomfort, soiling, reduced visibility.
Particulate Matter less than 2.5 Microns in Diameter ($PM_{2.5}$)	12 $\mu g/m^3$, AAM	35 $\mu g/m^3$, 24-hr. avg. 12 $\mu g/m^3$, AAM	Combustion from mobile and stationary sources, atmospheric chemical reactions.	Health problems, including asthma, bronchitis, acute and chronic respiratory symptoms such as shortness of breath and painful breathing, and premature deaths.
Carbon Monoxide (CO)	9.0 ppm, 8-hr. avg. 20 ppm, 1-hr. avg.	9 ppm, 8-hr. avg. 35 ppm, 1-hr. avg.	Incomplete combustion of fuels and other carbon-containing substances such as motor vehicle exhaust, natural events, such as decomposition of organic matter.	Reduced tolerance for exercise, impairment of mental function, impairment of fetal development, death at high levels of exposure, aggravation of some heart diseases (angina).
Nitrogen Dioxide (NO_2)	0.18 ppm, 1-hr. avg. 0.03 ppm, AAM	0.10 ppm, 1-hr. avg. 0.053 ppm, AAM	Motor vehicle exhaust, high-temperature stationary combustion, atmospheric reactions.	Aggravation of respiratory illness, reduced visibility, reduced plant growth, formation of acid rain.
Sulfur Dioxide (SO_2)	0.04 ppm, 24-hr avg. 0.25 ppm 1-hr. avg.	0.03 ppm, AAM 0.14 ppm, 24-hr. avg. 75 ppb, 1-hr. avg.	Combustion of sulfur-containing fossil fuels, smelting of sulfur-bearing metal ores, industrial processes.	Aggravation of respiratory diseases (asthma, emphysema), reduced lung function, irritation of eyes, reduced visibility, plant injury, deterioration of metals, textiles, leather, finishes, coating, etc.
Lead (Pb)	1.5 $\mu g/m^3$, 30 day avg.	0.15 $\mu g/m^3$, calendar quarter	Contaminated soil.	Increased body burden, impairment of blood formation and nerve conduction.
Visibility-Reducing Particles	Extinction coefficient of 0.23 per km, visibility of 10 miles or more due to particles when relative humidity is less than 70%..	No Federal Standards		Visibility impairment on days when relative humidity is less than 70%.

Notes:
ppm = parts per million by volume
$\mu g/m^3$ = micrograms per cubic meter
AAM = annual arithmetic mean
Source: California Air Resources Board, https://www.arb.ca.gov/research/aaqs/aaqs2.pdf

Therefore, the EIR clearly provided sufficient information and evidence about construction-related air quality impact and fully disclosed the potential air quality effects of the project. The EIR identified mitigation measures to reduce construction-related emissions, including the requirement that "diesel particulate filters are installed on diesel equipment and trucks and low sulfur diesel will be used for construction equipment". The EIR clearly disclosed that construction air quality impact will be significant and unavoidable to the public and decision makers.

2-8. The SWPP and the use of BMPs is not a mitigation, it is an existing regulation. As clearly stated in the Draft EIR: "For construction in areas of 1 acre or more in size, current regulations require design and implementation of a Storm Water Pollution Prevention Plan (SWPPP), which focuses on the implementation of Best Management Practices (BMPs)." The list of BMPs provided an example of commonly used BMPs. All BMPs are fully enforced through the SWPP, which has to be approved by the regulatory agency in compliance with existing regulations.

The mitigation measures identified in the Draft EIR to reduce construction noise impact are fully enforceable during construction. The project does not involve a single construction site, but several sites of different sizes for the sport fields, student housing, and a parking structure. The mitigation measures are not a detailed construction plan or schedule for each construction site, each component, or each construction day; they are the overall requirements that will be implemented at all sites and for components. Therefore they must provide flexibility required to be successfully implemented at different sites located at different distances from the surrounding facilities and uses, and with different construction types (for example improvements of the existing soccer field are very different from a construction of a parking structure). The comment letter provided similar mitigation measures requested to be included in the project: "Open space areas (e.g., courtyards, patios, balconies) will be located as far from the freeway *as possible;* Mechanical and ventilation systems with intakes located as far from the freeway *as possible* will be utilized".

2-9. The reasonable range of alternatives refers to alternatives that avoid or reduce the project's significant adverse impacts.

The project will have beneficial long-term impact on air quality. As evidenced in the Draft EIR analyses and clearly stated: "As shown, the North Campus project - that includes provision of on-campus student housing, will result in an overall beneficial impact on air quality as it will result in a net reduction in NOx, PM_{10}, and $PM_{2.5}$ emissions, substantial reduction in CO and NOx emissions, and a net reduction in GHG emissions." The alternative of reducing the project scope that would result in reducing the long-term beneficial air quality impact is not reasonable.

Please refer to Response 2-6. As evidenced in the Draft EIR and Draft EIR Traffic Study, the project will not have an adverse impact on LOS and the project will not increase traffic. The project will not create a significant impact at any of the study intersections, including the intersection of Paseo Rancho Castilla/Eastern Avenue & Eastern

Avenue/State University Drive, where, as shown in the Draft EIR, the project will result in a beneficial effect of reducing volume to capacity ratio at this intersection. Furthermore, as shown in the Draft EIR, the project will have a beneficial effect of reducing volume to capacity ration at additional 9 study intersections under the future with project conditions. Therefore, the alternative to "reduce the scope the project enough to avoid a negative impact to LOS at the intersection identified in the traffic analysis" is not reasonable.

Please refer to Response 2-3. The design features for student housing component of the project previously stated in the comment letter will be included in the project design. The following information that the design of the student housing will include, but not be limited to, has been included in the Final EIR:

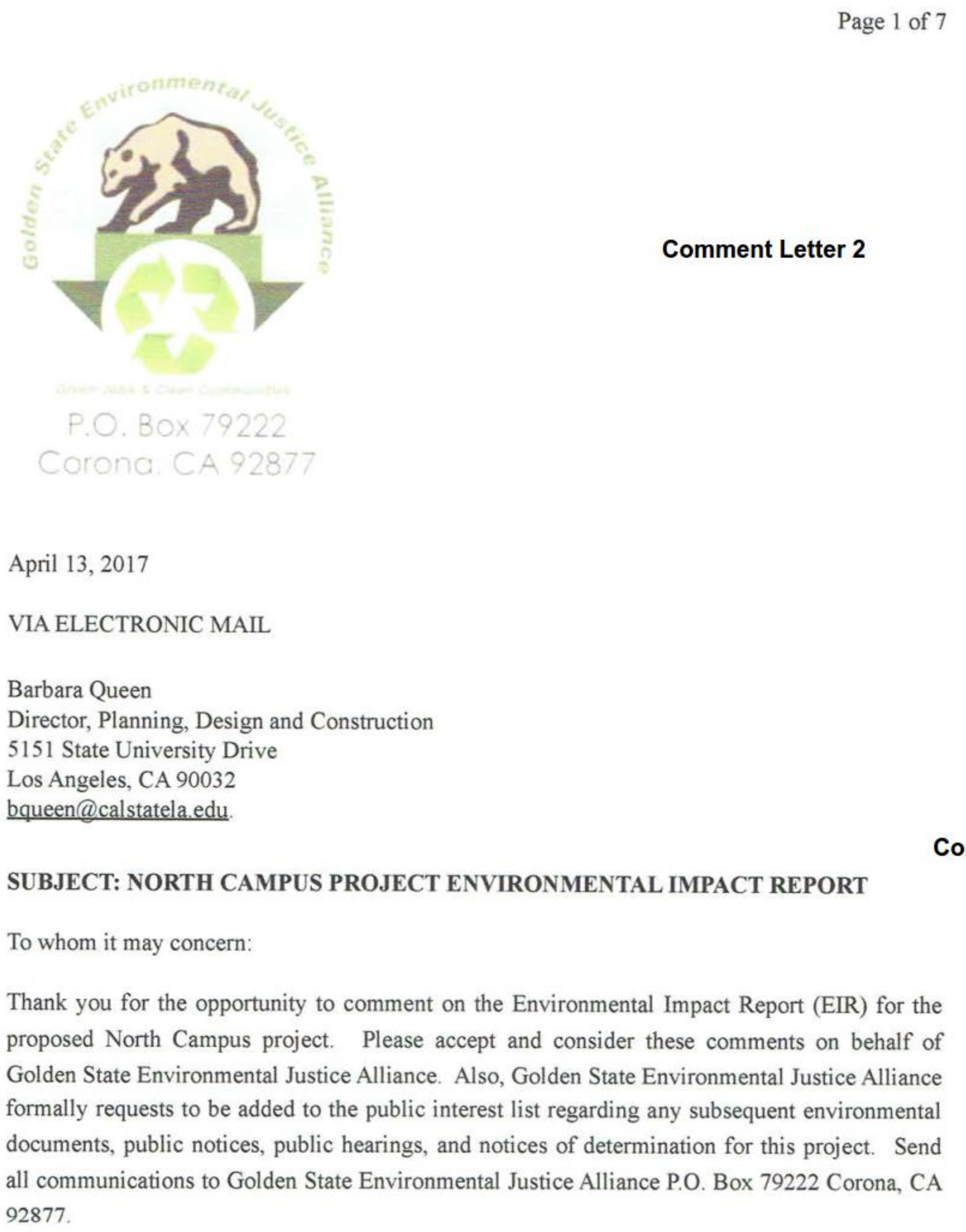
1. Student housing will incorporate air filtration systems with filters meeting or exceeding the ASHRAE 52.2 Minimum Efficiency Reporting Value (MERV) of 11 .
2. Open space areas (e.g., courtyards, patios, balconies) will be located as far from the freeway as possible.
3. Vegetation will be planted between student housing and the 710 freeway.
4. The floor plan will be designed to minimize operable windows and building entries along the freeway side of the building.
5. Mechanical and ventilation systems with intakes located as far from the freeway as possible will be utilized.

Since these features will part of the project, they are an alternative to the project.

Please refer to Responses 2-2 and 2-5 about parking spaces in the proposed parking structure. As clearly stated in the Draft EIR, the parking structure will provide replacement parking for the existing surface parking since the existing parking lots will be replaced with sports fields and student housing, and will only provide up to 100 new parking spaces. The provision of up to 100 new parking spaces and trips generated by those spaces was included in the Traffic Study analyses and the Draft EIR in evaluating the project traffic, air quality and other impacts. Please refer to Response 2-6: As evidenced in the Draft EIR and Draft EIR Traffic Study, the project will not have an adverse impact on LOS and the project will not increase traffic. The project will not create a significant impact at any of the study intersections, and the project will have a beneficial effect of reducing volume to capacity ration at 10 study intersections under the future with project conditions. Therefore, the alternative of "a parking structure with fewer parking spaces that reduce the number of cars making trips to the project site" is not reasonable.

2-10. The related projects are mapped and identified by City in Figure 5 of the Draft EIR Traffic Study (Appendix C). The comment is incorrect as the Draft EIR provides the appropriate information.

2-11. For the foregoing Responses to Comments, the Draft EIR provided complete and accurate information, analyses, and evidence that informed public agencies, decision makers, and the public generally of the significant environmental effects of the project on the environment, identified possible ways to minimize the significant effects, and described reasonable alternatives to the project. As requested, the Golden State Environmental Justice Alliance will be added to the CSU Los Angeles public interest list regarding any subsequent environmental documents, public notices, public hearings, and notices of determination for the project.



Page 1 of 7

Comment Letter 2

Golden State Environmental Justice Alliance
Green Jobs & Clean Communities
P.O. Box 79222
Corona, CA 92877

April 13, 2017

VIA ELECTRONIC MAIL

Barbara Queen
Director, Planning, Design and Construction
5151 State University Drive
Los Angeles, CA 90032
bqueen@calstatela.edu.

Comment

SUBJECT: NORTH CAMPUS PROJECT ENVIRONMENTAL IMPACT REPORT

To whom it may concern:

Thank you for the opportunity to comment on the Environmental Impact Report (EIR) for the proposed North Campus project. Please accept and consider these comments on behalf of Golden State Environmental Justice Alliance. Also, Golden State Environmental Justice Alliance formally requests to be added to the public interest list regarding any subsequent environmental documents, public notices, public hearings, and notices of determination for this project. Send all communications to Golden State Environmental Justice Alliance P.O. Box 79222 Corona, CA 92877.

1.0 Summary

As we understand it, the proposed project includes the construction of new student housing facilities with a dining hall, new sport and recreation fields, and a parking structure within the northern area of the California State University, Los Angeles (Cal State LA) campus. The project site is comprised of an existing sports field north of Paseo Rancho Castilla (North Field) and surface parking lots.

The student housing facilities will provide 1,500 beds for freshmen and sophomore students, as well as an associated dining facility. The student residence hall is anticipated to be a five-story building with internal courtyards, and the adjacent dining hall will be a single-story facility.

The existing North Field will be upgraded, including installation of natural grass turf, and will include an approximately 30,000 square-foot facility with sports fitness rooms, locker rooms, administrative rooms, and other amenities for players training at the field. No lighting will be provided at the field. The North Field is anticipated to be used as a practice field by a major league soccer team. Since it is a training field, no spectators will be present and no bleachers are provided at the fields. Surface parking for players and staff will be provided along western edge of the fields. The existing surface parking lots immediately south across Paseo Rancho Castilla will be replaced with new sports and recreation fields. These South Fields will be used by the University students.

The displaced surface parking will be accommodated in a new parking structure located next to the existing Parking Structure C, on the site that is currently used as a surface parking lot. The four to five-level parking structure will provide approximately 1,650 parking spaces. The parking structure may also provide space for long-term storage of cars by university students.

2.0 Project Description

CEQA § 15124(a) requires the precise location and boundaries of the proposed project shall be shown on a detailed map, preferably topographic. The location of the project shall also appear on a regional map. The EIR only provides a small conceptual site plan but it is not labeled with streets, highways, or any signifying geographic markers. The proposed student housing is adjacent to the 710 freeway, which should be identified. There is also no regional map included. This does not comply with CEQA § 15124(a). 2-1

The EIR states that the proposed Parking Structure C will be built on a site that is currently used as a surface parking lot. The four to five-level parking structure will provide approximately

1,650 parking spaces, including up to 100 new parking spaces. The parking structure may also provide space for long-term storage of cars by University students. The EIR is not specific in stating how many levels the parking structure will be. The EIR must be revised to include the exact height and number of stories the parking structure will be as this will impact the possible number of parking spaces total. Further, the EIR should also provide how many surface parking spaces and structure spaces exist at the site currently, how many surface spaces will remain with the proposed project, and the total number of parking spaces including both the new and existing structure and surface lot. 2-2

Other meaningful information is not included in the project description, including the size of the project site in square feet or acres. Further, the EIR does not discuss the California Air Resources Board (CARB) recommendation that lead agencies avoid locating new sensitive land uses within 500 feet of a freeway, urban roads with 100,000 vehicles per day, or rural roads with 50,000 vehicles per day. The proposed student housing is adjacent to the 710 freeway. A Health Risk Assessment (HRA) was not included in the EIR to inform the public and decision makers of the potential exposure and health risks associated with locating student housing within 500 feet of the 710 freeway. Project design features should be included to minimize the effects of exposure to elevated ambient air quality conditions for student housing, including but not limited to: 2-3

1. For student housing within 500 feet of the 710 freeway, incorporate air filtration systems with filters meeting or exceeding the ASHRAE 52.2 Minimum Efficiency Reporting Value (MERV) of 11. MERV 11 filters are effective in improving indoor air quality as compared to lower efficiency filters for PM10 and PM2.5.
2. Locate open space areas (e.g., courtyards, patios, balconies) as far from the freeway as possible.
3. Plant vegetation between student housing and the 710 freeway.
4. Design the floor plan to minimize operable windows and building entries along the freeway side of the building.
5. For student housing within 500 feet of the 710 freeway, utilize mechanical and ventilation systems with intakes located as far from the freeway as possible.

3.1 Aesthetics

The EIR concludes that the development of the proposed project "will result in a beneficial effect of improving the visual character of the site" but does not provide architectural elevations or conceptual exterior drawings. Further, the EIR states that "The proposed student housing and 2-4

South Fields will replace existing surface parking lots resulting in an improved visual character of the north campus area that complements and is compatible with the existing student housing clustered immediately west of the proposed new South Fields sport and recreation fields" but does not provide evidence that the project will be compatible architecturally with existing buildings at the project site. The EIR is inadequate as an informational document and does not provide supporting evidence for impacts regarding Aesthetics. 2-4 Cont.

3.2 Air Quality and Greenhouse Gases

The EIR maintains that the proposed on-campus housing will result in an overall reduction in long-term air pollutant emissions as a result of providing additional student housing with 1,500 beds. Since students living on-campus will not be permitted to have cars, the student housing will result in a reduction of approximately 1,736 vehicular trips and 25,801 vehicle miles traveled (VMTs) per day from student commute trips. However, the EIR does not continue the analysis to include the concept of the proposed parking structure. Increasing parking capacity provides an exponential increase in the number of cars able to travel to the project site. Further, the students in the on-campus housing may not be permitted to have a car while they live there, but they will be able to park in the structure once they no longer live on-campus. Adding 1,500 beds will increase CSULA's student capacity, but not many live on-campus beyond sophomore year as evidenced by the proposed student housing for freshman and sophomores. The new housing and parking structure will increase the number of VMT to the project site once the students no longer live on campus and become commuters. This potentially significant impact is not discussed or analyzed in the EIR. 2-5

3.3 Traffic and Circulation

The future without project conditions at Paseo Rancho Castilla/Eastern Avenue & Eastern Avenue/State University Drive will operate at LOS E during the AM peak hour and LOS F during the PM peak hour. The future with project conditions at Paseo Rancho Castilla/Eastern Avenue & Eastern Avenue/State University Drive will operate at LOS F during the AM and PM peak hour. The EIR concludes that "implementation of the project will result in beneficial impacts on traffic by reducing VMTs and daily commute trips" even though the project will have a negative impact on LOS and thus increase traffic. 2-6

The EIR makes this conclusion even though the Traffic Study (Appendix C) indicates that "SB 743 is still in the development stage. Preliminary guidelines have been published and final rules and guidelines are expected in early 2017". There are no final rules regarding VMT to evaluate in comparison to the proposed project. The EIR's analysis is unable to be verified or substantiated to comply with CEQA requirements. The EIR even states that "SB 743 *will* change the way in which transportation impacts are analyzed under CEQA" and not that it *has* changed the way impacts are analyzed under CEQA. Analyzing the project against rules that are not clearly defined represents deferred and uncertain mitigation. The EIR must mitigate the significant impacts to LOS associated with the proposed project. 2-6 Cont.

3.7 Construction Effects

The Air Quality Analysis (Appendix D) assumes a maximum 8 hour day of construction, 5 days per week. Section 41.40 of the LAMC permits the legal hours of construction in the City of Los Angeles as 7:00 A.M. - 9:00 P.M. Monday - Friday and 8:00 A.M. - 6:00 P.M. on Saturday. The EIR does not provide a "worst-case scenario" analysis of construction equipment emitting pollutants for the legal 14 hours per weekday plus 10 hours on Saturday. It is legal for construction to occur for much longer hours and an additional day (6 days per week including Saturday) than modeled in the Air Quality Analysis. The Air Quality modeling must be revised to account for these legally possible longer construction days and increased number of construction days. 2-7

A construction schedule is not given for the project in the EIR, but the Air Quality Analysis (Appendix C) assumes an 18 month construction schedule with overlapping construction, paving, and architectural coating phases. The EIR does not present any statement of impacts or potential mitigation measures from the overlap of construction phases. There is no statement that the construction phases will not occur concurrently. Also, there is no requirement that the project be completed over a certain number of days given. Construction may occur faster as well, which would result in significantly greater daily impacts.

The air quality analysis concludes that the construction of the proposed project will generate NO_X emissions that exceed the SCAQMD threshold. In keeping with *Bakersfield Citizens for Local Control v. City of Bakersfield* (2004) 124 Cal. App. 4th 1184, 1219-1220, the EIR should describe the health effects of the potential impacts from NOx. Impacts from $PM_{2.5}$ and PM_{10} are not discussed either, even though they can result from NO_X emissions.

The Toxic Air Pollutant (TACs) analysis presented in the EIR employs misleading and unenforceable language. The EIR states that "the amount of diesel emissions associated with a modest amount of construction associated with the North Campus Project will be *relatively* small and will not involve *massive* or *prolonged* operations of diesel trucks or equipment" even though construction of the proposed project will occur for at least four years on a site that is surrounded by sensitive receptors including current students that live on campus, LA County High School for the Arts, and a residential neighborhood adjacent to the north. The EIR is insufficient as an informational document as this claim is unsupported by evidence or findings from the AQA. It is also misleading to the public and decision makers. 2-7 Cont.

The Water Quality Analysis presents similar issues. The EIR employs unenforceable language when it states that "SWPPPs *may include* the following BMPs:", then provides a list of BMPs, then concludes by stating, "With implementation of *these* BMPs impact will be less than significant". The EIR is not clear in stating which BMP's will be used for the proposed project. A SWPPP with appropriate and project-specific BMPs must be prepared and included for public review. Not including this information represents deferred mitigation in violation of CEQA. It also is not in compliance with CEQA's requirements for meaningful disclosure to the public and decision-makers. 2-8

The mitigation measures provided to reduce Noise impacts are also unenforceable. This includes: "Muffled construction equipment will be used *whenever possible*", "Construction staging areas will be located *as far as possible* from nearby uses", and "*As needed*, a temporary barrier of no less than 8 feet in height made of solid wood or other similar material will be provided and placed strategically along the construction site's boundaries to protect the nearby residential uses, the existing student residences, the Anna Bing Arnold Children's Center, and LACHSA from construction noise". These mitigation measures are unenforceable and do not comply with CEQA § 15126.4(a)(2) which requires that "Mitigation measures must be fully enforceable through permit conditions, agreements, or other legally binding instruments". The EIR should provide details regarding which type of construction equipment must be muffled, the specific locations for staging areas for each phase of construction, and when/how "as needed" noise barriers will be determined to be necessary.

4.0 Alternatives

CEQA requires analysis of a "reasonable range" of alternatives. Here, since the No Project Alternative is required, the EIR analyzes only two. This does not comply with a reasonable range of alternatives. Additional alternatives for analysis could include, but are not limited to: 2-9

1. A reduced intensity alternative that reduces the scope of the project enough to avoid significant impacts to air quality.

2. A reduced intensity alternative that reduces the scope of the project enough to avoid a negative impact to LOS at the intersection identified in the traffic analysis. 2-9 Cont
3. A project design that sites the proposed student housing more than 500 feet from the 710 freeway.
4. A project design that mitigates the potential impacts to the proposed student housing from the 710 freeway by utilizing the previously stated project design features.
5. A parking structure with fewer parking spaces that will reduce the number of cars making trips to the project site.

5.0 Cumulative and Long-term Effects

The table presents a list of 9 projects given by the Los Angeles Department of City Planning, LADOT, and City of Alhambra Services Department for analysis in the EIR. The table only gives the project address to identify to the project and does not indicate the distance from the proposed project site. A brief, one or two word description and size (square footage or number of units) of the projects are given. The address of the project is given but the City it is located in is not included. The EIR does not provide a map of these projects. This does not comply with CEQA's requirements for meaningful disclosure. The location, name, and distance from the proposed project site must be disclosed in the EIR and they must be pictured on a map for identification. 2-10

Conclusion

For the foregoing reasons, GSEJA believes the EIR is flawed and an amended EIR must be prepared for the proposed project and recirculated for public review. Golden State Environmental Justice Alliance requests to be added to the public interest list regarding any subsequent environmental documents, public notices, public hearings, and notices of determination for this project. Send all communications to Golden State Environmental Justice Alliance P.O. Box 79222 Corona, CA 92877. 2-11

Sincerely,

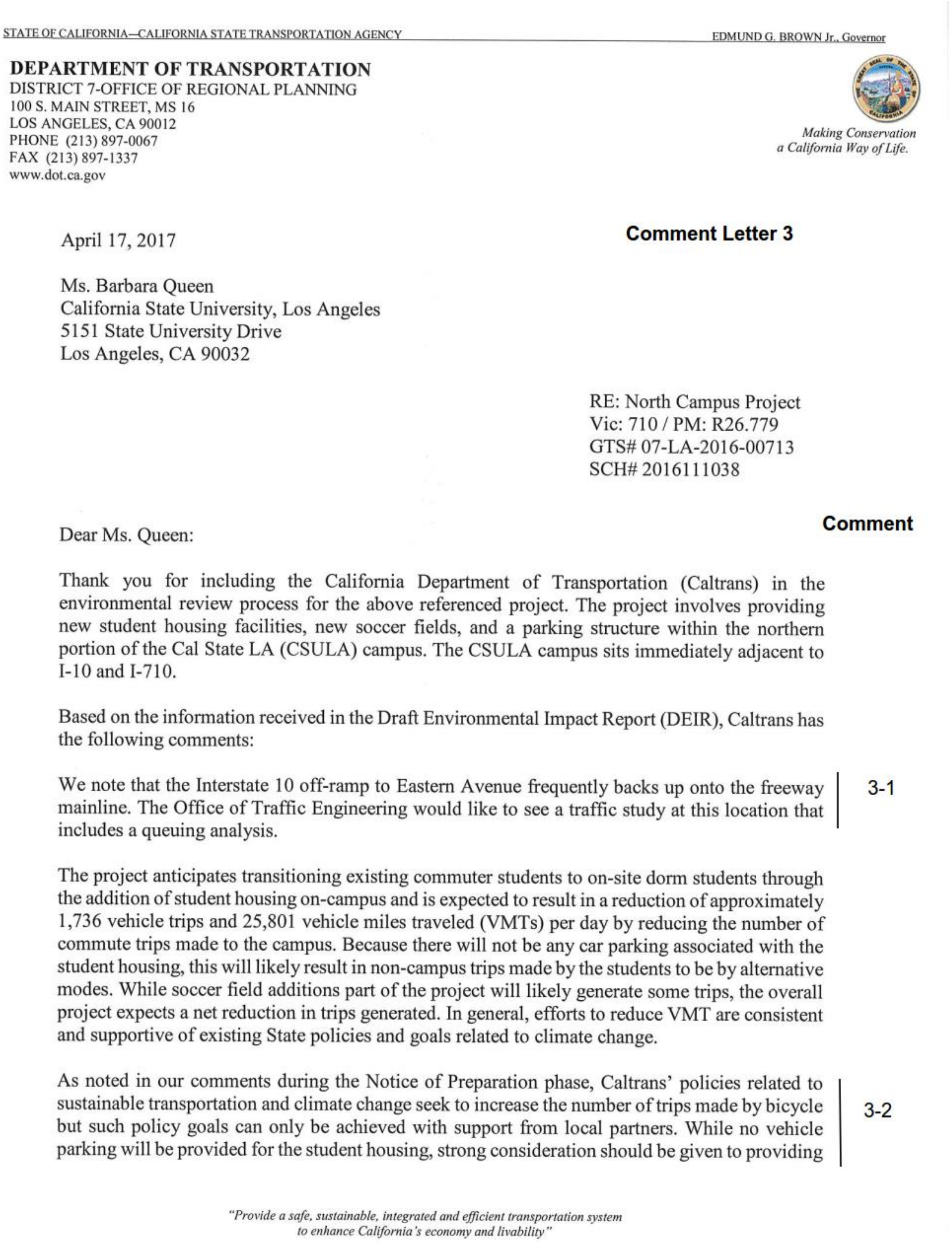
FOR:

Board of Directors
Golden State Environmental Justice Alliance

3. Dianna Watson, Chief, LD-IGR/CEQA Review Branch, Caltrans District 7. April 17, 2017.

3-1. Chapter 8 of the Draft EIR Traffic Study included an analysis of the project's impacts on the freeway system as per Caltrans Guidelines. Freeway mainline analyses were performed to determine the project's fair share contribution to future cumulative traffic levels on the freeways serving the project site. Since the project resulted in a reduction in total trips generated by the University campus the analysis did not include a queuing analysis of the off-ramps serving the site. Thus, the project will result in a reduction in the amount of traffic using the off-ramp in question. The purpose of the ramp analysis is to determine if the project will add to an existing problem or create a new problem in terms of queuing onto the freeway mainlines. In this case, the project will reduce the queuing onto the mainline and therefore the project cannot create an additional impact on the freeway system. For this reason, the analysis was not included in the traffic study.

3-2. The California State University (CSU) system is a strong supporter of sustainable transportation at all CSU campuses, including the provision of secure, convenient, and sufficient bicycle parking and facilities. Detailed design of each bicycle parking area included in the project in support of sustainable transportation is part of detailed final design, which includes considerations of the inverted-U and staple bike racks. The University has been and will continue to provide bicycle parking on campus that is safe, pleasant, and convenient, including the provision of the project's bicycle parking within an open, visible, safe, and convenient open area next to the sports fields.



STATE OF CALIFORNIA—CALIFORNIA STATE TRANSPORTATION AGENCY
EDMUND G. BROWN Jr., Governor

DEPARTMENT OF TRANSPORTATION
DISTRICT 7-OFFICE OF REGIONAL PLANNING
100 S. MAIN STREET, MS 16
LOS ANGELES, CA 90012
PHONE (213) 897-0067
FAX (213) 897-1337
www.dot.ca.gov

Making Conservation
a California Way of Life.

Comment Letter 3

April 17, 2017

Ms. Barbara Queen
California State University, Los Angeles
5151 State University Drive
Los Angeles, CA 90032

RE: North Campus Project
Vic: 710 / PM: R26.779
GTS# 07-LA-2016-00713
SCH# 2016111038

Comment

Dear Ms. Queen:

Thank you for including the California Department of Transportation (Caltrans) in the environmental review process for the above referenced project. The project involves providing new student housing facilities, new soccer fields, and a parking structure within the northern portion of the Cal State LA (CSULA) campus. The CSULA campus sits immediately adjacent to I-10 and I-710.

Based on the information received in the Draft Environmental Impact Report (DEIR), Caltrans has the following comments:

We note that the Interstate 10 off-ramp to Eastern Avenue frequently backs up onto the freeway mainline. The Office of Traffic Engineering would like to see a traffic study at this location that includes a queuing analysis. **3-1**

The project anticipates transitioning existing commuter students to on-site dorm students through the addition of student housing on-campus and is expected to result in a reduction of approximately 1,736 vehicle trips and 25,801 vehicle miles traveled (VMTs) per day by reducing the number of commute trips made to the campus. Because there will not be any car parking associated with the student housing, this will likely result in non-campus trips made by the students to be by alternative modes. While soccer field additions part of the project will likely generate some trips, the overall project expects a net reduction in trips generated. In general, efforts to reduce VMT are consistent and supportive of existing State policies and goals related to climate change.

As noted in our comments during the Notice of Preparation phase, Caltrans' policies related to sustainable transportation and climate change seek to increase the number of trips made by bicycle but such policy goals can only be achieved with support from local partners. While no vehicle parking will be provided for the student housing, strong consideration should be given to providing **3-2**

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to enhance California's economy and livability"

secure and convenient bicycle parking. Integrating a bicycle parking hub into the design of the new student housing can better accommodate and promote bicycle use. As with the Without safe, pleasant and convenient bicycle parking, students may resort to storing bicycles inside dorms or improperly locking bicycles to fixed objects.

It is stated in the DEIR that small surface parking for bicycles and vehicles will be provided as part of the new soccer field additions. In the Final Environmental Impact Report (FEIR), we would like to see more detailed discussion of the type of bicycle parking and specific placement. Bicycle use should not merely be accommodated, but also encouraged. In order to promote bicycle use, the bicycle parking must be safe, pleasant, and convenient. This entails providing modern bicycle parking infrastructure such as the inverted-U or staple bike rack design while ensuring racks are located in a visible and convenient location. In the absence of quality bicycle parking, users are likely to ignore what is provided and instead lock bicycles improperly or illegally to other fixed objects. 3-2 Cont.

If you have any questions regarding these comments, please contact project coordinator Severin Martinez, at (213)-897-0067 or severin.martinez@dot.ca.gov and refer to GTS# LA-2016-00713.

Sincerely,

Melanie Bradford for

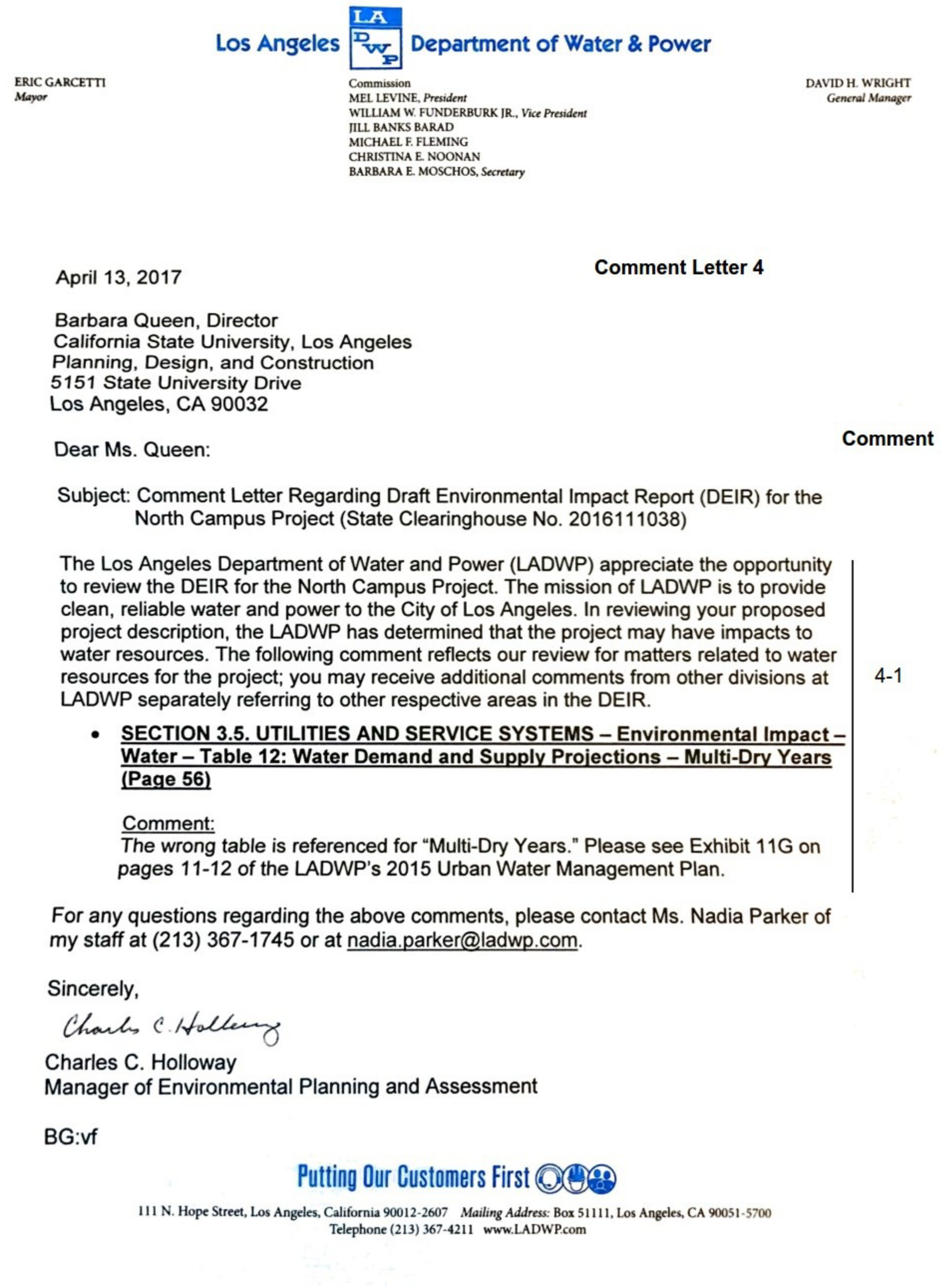
DIANNA WATSON
IGR/CEQA Branch Chief

cc: Scott Morgan, State Clearinghouse

"Provide a safe, sustainable, integrated and efficient transportation system to enhance California's economy and livability"

4. Charles C. Holloway, Manager of Environmental Planning and Assessment, Los Angeles Department of Water and Power. Received April 24, 2017.

4-1. Table 12, Water Demand and Supply Projections for Multi-Dry Years**,** has been updated with the reference to Exhibit 11G of the LADWP's 2015 Urban Water Management Plan, which shows the projected total water supplies as reported and analyzed in the Draft EIR.



Los Angeles LA DWP Department of Water & Power

ERIC GARCETTI
Mayor

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BARBARA E. MOSCHOS, *Secretary*

DAVID H. WRIGHT
General Manager

Comment Letter 4

April 13, 2017

Barbara Queen, Director
California State University, Los Angeles
Planning, Design, and Construction
5151 State University Drive
Los Angeles, CA 90032

Comment

Dear Ms. Queen:

Subject: Comment Letter Regarding Draft Environmental Impact Report (DEIR) for the North Campus Project (State Clearinghouse No. 2016111038)

The Los Angeles Department of Water and Power (LADWP) appreciate the opportunity to review the DEIR for the North Campus Project. The mission of LADWP is to provide clean, reliable water and power to the City of Los Angeles. In reviewing your proposed project description, the LADWP has determined that the project may have impacts to water resources. The following comment reflects our review for matters related to water resources for the project; you may receive additional comments from other divisions at LADWP separately referring to other respective areas in the DEIR. 4-1

- **SECTION 3.5. UTILITIES AND SERVICE SYSTEMS – Environmental Impact – Water – Table 12: Water Demand and Supply Projections – Multi-Dry Years (Page 56)**

  Comment:
  The wrong table is referenced for "Multi-Dry Years." Please see Exhibit 11G on pages 11-12 of the LADWP's 2015 Urban Water Management Plan.

For any questions regarding the above comments, please contact Ms. Nadia Parker of my staff at (213) 367-1745 or at nadia.parker@ladwp.com.

Sincerely,

Charles C. Holloway

Charles C. Holloway
Manager of Environmental Planning and Assessment

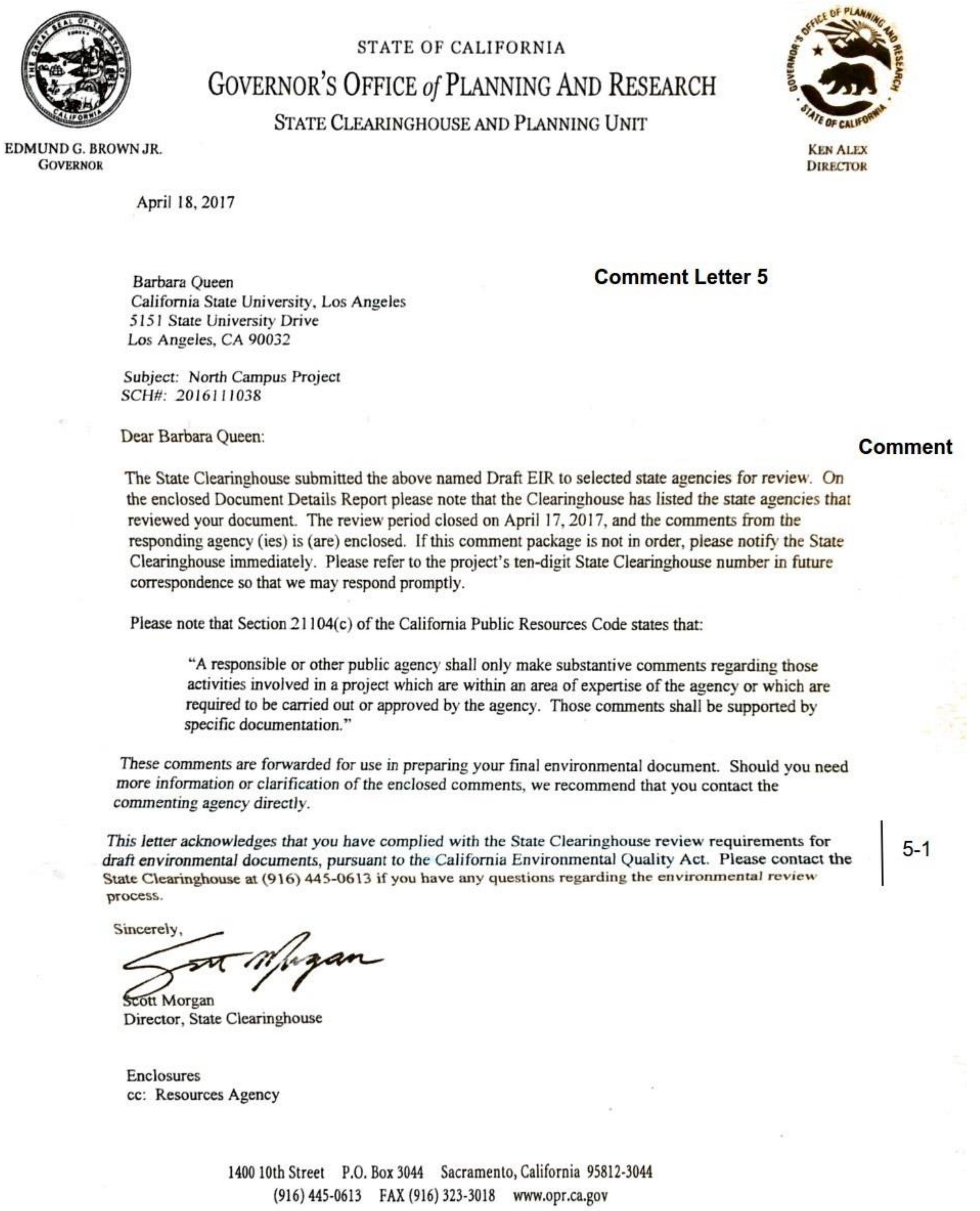
BG:vf

Putting Our Customers First

111 N. Hope Street, Los Angeles, California 90012-2607 *Mailing Address:* Box 51111, Los Angeles, CA 90051-5700
Telephone (213) 367-4211 www.LADWP.com

5. Scott Morgan, Director, State Clearinghouse. Received April 24, 2017.

5-1. The information that the University complied with the State Clearinghouse review requirements is acknowledged. No response is required.



STATE OF CALIFORNIA
GOVERNOR'S OFFICE *of* PLANNING AND RESEARCH
STATE CLEARINGHOUSE AND PLANNING UNIT

EDMUND G. BROWN JR.
GOVERNOR

KEN ALEX
DIRECTOR

April 18, 2017

Comment Letter 5

Barbara Queen
California State University, Los Angeles
5151 State University Drive
Los Angeles, CA 90032

Subject: North Campus Project
SCH#: 2016111038

Dear Barbara Queen:

Comment

The State Clearinghouse submitted the above named Draft 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 April 17, 2017, and the comments from the responding agency (ies) is (are) enclosed. 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."

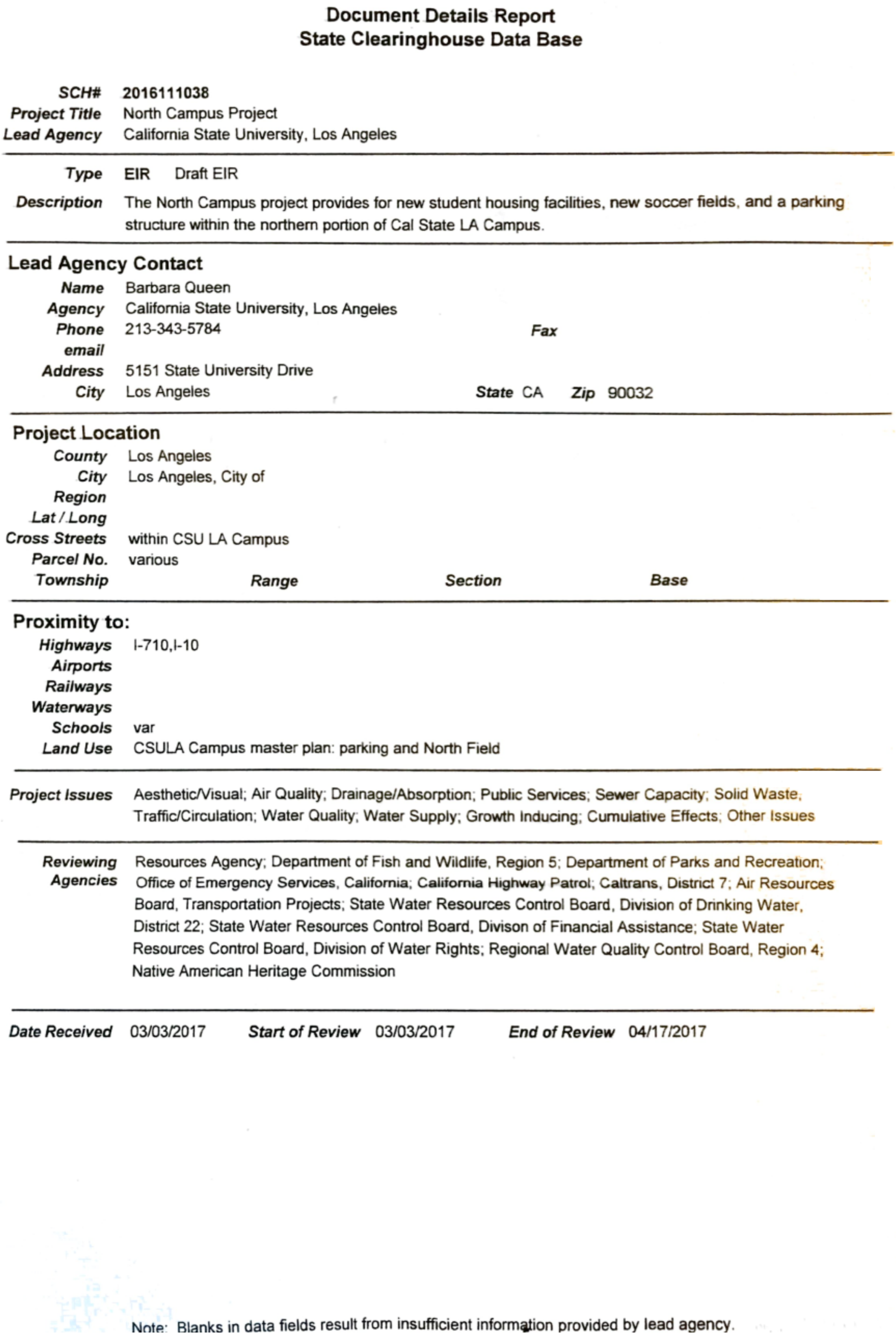
These comments are forwarded for use in preparing your final environmental document. Should you need more information or clarification of the enclosed comments, we recommend that you contact the commenting agency directly.

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. 5-1

Sincerely,

Scott Morgan
Director, State Clearinghouse

Enclosures
cc: Resources Agency



Document Details Report
State Clearinghouse Data Base

SCH# 2016111038
Project Title North Campus Project
Lead Agency California State University, Los Angeles

Type EIR Draft EIR

Description The North Campus project provides for new student housing facilities, new soccer fields, and a parking structure within the northern portion of Cal State LA Campus.

Lead Agency Contact

Name Barbara Queen
Agency California State University, Los Angeles
Phone 213-343-5784 **Fax**
email
Address 5151 State University Drive
City Los Angeles **State** CA **Zip** 90032

Project Location

County Los Angeles
City Los Angeles, City of
Region
Lat / Long
Cross Streets within CSU LA Campus
Parcel No. various
Township **Range** **Section** **Base**

Proximity to:

Highways I-710,I-10
Airports
Railways
Waterways
Schools var
Land Use CSULA Campus master plan: parking and North Field

Project Issues Aesthetic/Visual; Air Quality; Drainage/Absorption; Public Services; Sewer Capacity; Solid Waste, Traffic/Circulation; Water Quality; Water Supply; Growth Inducing; Cumulative Effects; Other Issues

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Reviewing Agencies Resources Agency; Department of Fish and Wildlife, Region 5; Department of Parks and Recreation; Office of Emergency Services, California; California Highway Patrol; Caltrans, District 7; Air Resources Board, Transportation Projects; State Water Resources Control Board, Division of Drinking Water, District 22; State Water Resources Control Board, Divison of Financial Assistance; State Water Resources Control Board, Division of Water Rights; Regional Water Quality Control Board, Region 4; Native American Heritage Commission

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Date Received 03/03/2017 **Start of Review** 03/03/2017 **End of Review** 04/17/2017

Note: Blanks in data fields result from insufficient information provided by lead agency.

Appendices

Appendix A

NOP and Responses

Notice Preparation of Environmental Impact Report
North Campus Project
Cal State LA

The California State University, Los Angeles (Cal State LA) will prepare an Environmental Impact Report for the North Campus project. The project provides for new student housing facilities, new soccer fields, and a parking structure within the northern portion of the Cal State LA campus. The project site is comprised of an existing sports field north of Hellman Avenue (North Field) and surface parking lots. The student housing facilities will provide 1,500 beds for freshmen and sophomore students, as well as an associated dining facility. The existing North Field will be upgraded, and will include an approximately 30,000 square-foot facility with fitness rooms, locker rooms, administrative rooms, and other amenities for soccer players training at the field. The North Field is anticipated to be used as a training soccer field by a major league soccer team, and will also be used as training field by community youth soccer organizations and the University students when not in use by the soccer team. The existing surface parking lot immediately south across Hellman Avenue with be replaced with new soccer fields. These South Fields will be used by the University students, including students living in the existing and proposed new student residence halls on the site, and will support the Athletics Department programs. The displaced surface parking will be accommodated in a new parking structure located next to the existing Parking Structure C, on the site that is currently used as a surface parking lot. The four-level parking structure will provide approximately 1,650 parking spaces, including up to 100 new parking spaces.

The University completed an Initial Study for the North Campus project which indicates that the project may potentially have significant environmental impacts which will be addressed in the EIR being prepared by University. The 30-day public review period for the Initial Study begins on November 15, 2016 and ends on December 14, 2016.

A public meeting is scheduled on December 6, 2016 at 5:00 p.m. on campus at Facilities Planning, Design, and Construction Department, Corporation Yard - Building #23, 2nd Floor**,** Room 221, to receive comments on the Initial Study.

The document is available for public review during the public review period at the University's website at: http://www.calstatela.edu/sites/default/files/users/u49331/cal_state_la_nop.doc and at the following locations at the Cal State LA campus: (1) Planning, Design and Construction Department and (2) John F. Kennedy Memorial Library.

If you wish to comment, please send your written comments so the comments are received no later than 5:00pm, December 14, 2016 to:
Barbara Queen, Director,
Planning, Design and Construction
California State University Los Angeles
5151 State University Drive, Los Angeles, CA 90032
Phone: (323) 343-5784
Fax: (323) 343-5788
Email: bqueen@calstatela.edu

Initial Study

North Campus Project

California State University, Los Angeles

November 2016

Initial Study

North Campus Project

California State University, Los Angeles

November 2016

Lead Agency
The Board of Trustees of the California State University;
California State University, Los Angeles

Consultant to Lead Agency
WSP | Parsons Brinckerhoff

Initial Study

1. **Project Title:** North Campus Project

2. **Lead Agency Name and Address:** The Board of Trustees of the California State University;
California State University, Los Angeles
5151 State University Drive
Los Angeles, CA 90032

3. **Contact Person and Phone Number:** Barbara Queen, Director
Planning, Design and Construction
(323) 343-5784

4. **Project Location:** California State University, Los Angeles campus, Los Angeles, Los Angeles County

5. **Project Sponsor's Name and Address:** Same as Lead Agency

6. **Campus Master Plan Designation:** Parking and North Field

7. **Project Description:** The proposed project provides for new student housing facilities, new soccer fields, and a parking structure within the northern portion of the California State University, Los Angeles (Cal State LA) campus. The project site is comprised of an existing sports field north of Hellman Avenue (North Field) and surface parking lots.

   The student housing facilities will provide 1,500 beds for freshmen and sophomore students, as well as an associated dining facility. The student residence hall is anticipated to be a winged five to ten-story building with internal courtyards, and the adjacent dining hall will be a single-story facility.

   The existing North Field will be upgraded, and will include an approximately 30,000 square-foot facility with fitness rooms, locker rooms, administrative rooms, and other amenities for soccer players training at the field. The North Field is anticipated to be used as a training field by a major league soccer team, and will also be used as training field by community youth soccer organizations and the University students when not in use by the soccer team. The existing surface parking lost immediately south across Hellman Avenue with be replaced with new soccer fields. These South Fields will be used by the University students, including students living in the existing and proposed new student residence halls on the site, and will support the Athletics Department programs.

   The displaced surface parking will be accommodated in a new parking structure located next to the existing Parking Structure C, on the site that is currently used as a surface parking lot. The four-level parking structure will provide approximately 1,650 parking spaces, including up to 100 new parking spaces.

   Figure 1 illustrates a conceptual plan for these facilities.

North Campus Project Conceptual Plan
Figure 1

8. **Surrounding Land Uses and Setting:** The project site is surrounded by the Cal State LA campus facilities, including existing student housing to the west, surface parking and parking structure south of Paseo Rancho Castilla, and the Long Beach freeway (I-710) to the east. The closest residential uses to this portion of the campus are located to the north, between East Valley Boulevard and Paseo Rancho Castilla.

9. **CSU and Other Public Agencies whose approval will be sought:**

- CSU Board of Trustees
  Approval of Campus Master Plan Revision
  Approval of Student Housing, parking structure, and soccer field schematic plans
  Approval of public-private partnership for use of training soccer field

- State Fire Marshal
  Facility fire safety review and approval

- City of Los Angeles Department of Water and Power
  Approval of increase in quantity or new water connections

- County Sanitation Districts of Los Angeles County
  Approval of increase in quantity or new sewer connections

- Regional Water Quality Control Board
  Compliance with NPDES permit

- Others, as may be necessary

Environmental Factors Potentially Affected

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

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

Determination

On the basis of this initial evaluation:

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

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

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

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

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

Signature

11.08.2016
Date

Issues:	Potentially Significant Impact	Less Than Significant Impact with Mitigation Incorporated	Less Than Significant Impact	No Impact
I. AESTHETICS -- Would the project:				
a) Have a substantial adverse effect on a scenic vista?	☐	☐	☐	☒
b) Substantially damage scenic resources, including, but not limited to, trees, rock outcroppings, and historic buildings within a State scenic highway?	☐	☐	☐	☒
c) Substantially degrade the existing visual character or quality of the site and its surroundings?	☐	☐	☒	☐
d) Create a new source of substantial light or glare which would adversely affect day or nighttime views in the area?	☐	☒	☐	☐

a through d. The northern portion of the Cal State LA campus is located in a developed urban area that does not provide scenic vistas, and the campus is not located within a State scenic highway. The proposed student housing and soccer fields will replace existing surface parking lots resulting in an improved visual character of the north campus area that complements and is compatible with the existing student housing clustered immediately west of the proposed soccer fields. The parking structure will fill in the existing surface parking lot next to the existing parking facility, with compatible design and visual character. However, since the project includes lighting for the soccer fields and will result in a more urban visual character of the north campus area, the aesthetic effect of these planned facilities, and any needed mitigation, will therefore be addressed in the EIR.

Issues:	Potentially Significant Impact	Less Than Significant Impact with Mitigation Incorporated	Less Than Significant Impact	No Impact
II. AGRICULTURE AND FOREST RESOURCES: In determining whether impacts to agricultural resources are significant environmental effects, lead agencies may refer to the California Agricultural Land Evaluation and Site Assessment Model (1997) prepared by the California Dept. of Conservation as an optional model to use in assessing impacts on agriculture and farmland. In determining whether impacts to forest resources, including timberland, are significant environmental effects, lead agencies may refer to information compiled by the California Department of Forestry and Fire Protection regarding the state's inventory of forest land, including the Forest and Range Assessment Project and the Forest Legacy Assessment project; and forest carbon measurement technology provided in Forest Protocols adopted by the California Air Resources Board. Would the project:				
a) Convert Prime Farmland, Unique Farmland, or Farmland of Statewide Importance (Farmland), as shown on the maps prepared pursuant to the Farmland Mapping and Monitoring Program of the California Resources Agency, to non-agricultural use?	☐	☐	☐	☒
b) Conflict with existing zoning for agricultural use, or a Williamson Act contract?	☐	☐	☐	☒
c) Conflict with existing zoning for, or cause rezoning of, forest land (as defined in Public Resources Code section 12220(g)), timberland (as defined in Public Resources section 4256) or timberland zoned Timberland Production (as defined by Government Code section 51104(g)?	☐	☐	☐	☒
d) Result in the loss of forest land or conversion of forest land to non-forest use?	☐	☐	☐	☒

Issues:	**Potentially Significant Impact**	**Less Than Significant Impact with Mitigation Incorporated**	**Less Than Significant Impact**	**No Impact**
e) Involve other changes in the existing environment which, due to their location or nature, could result in conversion of Farmland to non-agricultural use or conversion of forest land to non-forest use?	☐	☐	☐	☒

a through e. No property under Williamson Act contract; land mapped as Prime, Unique, or of State or Local Importance Farmland; or forest land exists within the Cal State LA campus. The campus, including the project site, is located within a developed urban area. No impact will result.

III. AIR QUALITY -- Where available, the significance criteria established by the applicable air quality management or air pollution control district may be relied upon to make the following determinations. Would the project:

a) Conflict with or obstruct implementation of the applicable air quality plan?	☐	☐	☐	☒
b) Violate any air quality standard or contribute substantially to an existing or projected air quality violation?	☐	☐	☒	☐
c) Result in a cumulatively considerable net increase of any criteria pollutant for which the project region is non-attainment under an applicable federal or state ambient air quality standard (including releasing emissions which exceed quantitative thresholds for ozone precursors)?	☒	☐	☐	☐
d) Expose sensitive receptors to substantial pollutant concentrations?	☐	☐	☒	☐
e) Create objectionable odors affecting a substantial number of people?	☐	☐	☐	☒

a. The provision of student housing and training soccer fields on campus will not conflict with nor obstruct the implementation of the South Coast Air Quality Management Plan. It will not create additional student enrollment growth on campus or additional regional growth. The Air Quality Management Plan is based on the regional growth projections and the provision of student housing and soccer fields on campus will not affect these regional projections. In addition, the provision of additional student housing on campus will have a beneficial effect of reducing student commute vehicular trips and the associated vehicular emissions.

Issues:	Potentially Significant Impact	Less Than Significant Impact with Mitigation Incorporated	Less Than Significant Impact	No Impact

b through d. The provision of student housing, replacement parking structure, and new soccer field facilities will not generate growth in student enrollment on campus and will reduce student commute vehicular trips that produce exhaust emissions. However, since the construction activities associated with the provision of these facilities will generate short-term emissions, this issue will be addressed in the EIR.

e. The operations of student housing, soccer training fields, and a parking structure on campus are not associated with the generation of objectionable odors that could affect a substantial number of people. No adverse impact will result.

IV. BIOLOGICAL RESOURCES -- Would the project:				
a) Have a substantial adverse effect, either directly or through habitat modifications, on any species identified as a candidate, sensitive, or special status species in local or regional plans, policies, or regulations, or by the California Department of Fish and Game or U.S. Fish and Wildlife Service?	☐	☐	☐	☒
b) Have a substantial adverse effect on any riparian habitat or other sensitive natural community identified in local or regional plans, policies, regulations, or by the California Department of Fish and Game or US Fish and Wildlife Service?	☐	☐	☐	☒
c) Have a substantial adverse effect on federally protected wetlands as defined by Section 404 of the Clean Water Act (including, but not limited to, marsh, vernal pool, coastal, etc.) through direct removal, filling, hydrological interruption, or other means?	☐	☐	☐	☒
d) Interfere substantially with the movement of any native resident or migratory fish or wildlife species or with established native resident or migratory wildlife corridors, or impede the use of native wildlife nursery sites?	☐	☐	☐	☒
e) Conflict with any local policies or ordinances protecting biological resources, such as a tree preservation policy or ordinance?	☐	☐	☐	☒

Issues:	**Potentially Significant Impact**	**Less Than Significant Impact with Mitigation Incorporated**	**Less Than Significant Impact**	**No Impact**
f) Conflict with the provisions of an adopted Habitat Conservation Plan, Natural Community Conservation Plan, or other approved local, regional, or state habitat conservation plan?	☐	☐	☐	☒

a through f. The Cal State LA campus is an urban campus developed with University facilities and is surrounded by urban development. The project site is developed with surface parking and an existing sport field and is surrounded by existing student housing, parking, and other facilities. No native resident or migratory fish or wildlife species, native resident or migratory wildlife corridors, or native wildlife nursery are known to be located within or adjacent to the project site. No species identified as a candidate, sensitive or special status species in local or regional plans, policies, or regulation, or by the California Department of Fish and Wildlife (CDFW) or U.S. Fish and Wildlife Service (USFWS) are known to live, forage, or visit the project area. No riparian habitat or other sensitive natural community identified in local or regional plans, policies, and regulation or by CDFW or USFWS exist within the project site and the surrounding area. No federally protected wetlands (as defined by Section 404 of the Clean Water Act), wildlife nurseries, wildlife corridors, natural communities, or habitats exist on or near the project. The project site is not included in any habitat conservation plan, and no local policies regarding biological resources are applicable to the project site or surrounding areas. No impact on biological resources will occur.

V. CULTURAL RESOURCES -- Would the project:

a) Cause a substantial adverse change in the significance of a historical resource as defined in §15064.5?	☐	☐	☐	☒
b) Cause a substantial adverse change in the significance of an archaeological resource pursuant to §15064.5?	☐	☐	☐	☒
c) Directly or indirectly destroy a unique paleontological resource or site or unique geologic feature?	☐	☐	☐	☒
d) Disturb any human remains, including those interred outside of formal cemeteries?	☐	☐	☐	☒

a through d. The project site is currently developed with surface parking and a sports play field. No known paleontological or archaeological resources are located within the site or within the north campus area. The potential for uncovering such significant resources is considered remote, given that no such resources have been discovered during prior development activity, including construction of student housing, parking, and other University facilities within this area. While the potential for uncovering such significant resources is considered remote, in an unlikely event that such resources are discovered during project construction, compliance with existing laws and regulations will ensure no significant impact. These laws and regulations include: (1) stopping work in the event that a paleontological resource is discovered until a qualified paleontologist can visit the site and assess the significance of the potential paleontological resource.; (2) the paleontologist will then conduct on-site paleontological monitoring, including inspection of exposed surfaces to determine if fossils are present, and (3) if fossils are present, the monitor will have the authority to divert grading away from exposed fossils temporarily in order to recover the fossil specimens.

In addition, in an unlikely event that containing human remains are inadvertently discovered during construction, compliance with existing laws and regulations will ensure no significant impact. These laws and regulations include: (1) ceasing construction in the vicinity of the discovery or any nearby area, and (2) immediately notifying the Los Angeles County Coroner's Office. Furthermore, if the county coroner determines that the remains are Native American, then (1) contacting the Native American Heritage Commission within 24 hours, (2) the Native American Heritage Commission will then designate a most likely descendent who may make recommendations concerning the disposition of the remains and associated grave goods in consultation, and (3) if the Native American Heritage Commission is unable to identify a most likely descendant or if the most likely descendent failed to make a recommendation within 24 hours, reburying the remains and associated grave goods on the property in a location that will not be disturbed. Compliance with these existing laws and regulations will ensure a less than significant impact in an unlikely event that such resources are uncovered. No adverse impact is anticipated and these issues will not be addressed further in the EIR.

Issues:	**Potentially Significant Impact**	**Less Than Significant Impact with Mitigation Incorporated**	**Less Than Significant Impact**	**No Impact**
VI. GEOLOGY AND SOILS -- Would the project:				
a) Expose people or structures to potential substantial adverse effects, including the risk of loss, injury, or death involving:				
i) Rupture of a known earthquake fault, as delineated on the most recent Alquist-Priolo Earthquake Fault Zoning Map issued by the State Geologist for the area or based on other substantial evidence of a known fault? Refer to Division of Mines and Geology Special Publication 42.	☐	☐	☐	☒
ii) Strong seismic ground shaking?	☐	☐	☒	☐
iii) Seismic-related ground failure, including liquefaction?	☐	☐	☒	☐
iv) Landslides?	☐	☐	☐	☒

Issues:	Potentially Significant Impact	Less Than Significant Impact with Mitigation Incorporated	Less Than Significant Impact	No Impact
b) Result in substantial soil erosion or the loss of topsoil?	☐	☐	☒	☐
c) Be located on a geologic unit or soil that is unstable, or that would become unstable as a result of the project, and potentially result in on- or off-site landslide, lateral spreading, subsidence, liquefaction or collapse?	☐	☐	☒	☐
d) Be located on expansive soil, as defined in Table 18-1-B of the Uniform Building Code (1994), creating substantial risks to life or property?	☐	☐	☒	☐
e) Have soils incapable of adequately supporting the use of septic tanks or alternative waste water disposal systems where sewers are not available for the disposal of waste water?	☐	☐	☐	☒

a through d. The campus is located in the seismically active Southern California region and therefore all design and construction of the student housing facilities and parking structure will be in full compliance with the California State University seismic safety rules and regulation. Both the student housing and the parking structure will be designed and use engineering techniques specific to the specific site's soil conditions. The site is located on relatively flat terrain away from hillsides; therefore it is not at risk for landslides. With compliance with all applicable requirements and regulations and the use of appropriate engineering and design techniques impact will be less than significant and these issues will not be addressed in the EIR.

e. The campus is served by sewer systems and no septic tanks or alternative wastewater disposal systems are needed. No impact will result.

VII. GREENHOUSE GAS EMISSIONS --
Would the project:

a) Generate greenhouse gas emissions, either directly or indirectly, that may have a significant impact on the environment?	☐	☒	☐	☐
b) Conflict with applicable plan, policy or regulation adopted for the purpose of reducing the emissions of greenhouse gases?	☐	☐	☐	☒

Issues:	Potentially Significant Impact	Less Than Significant Impact with Mitigation Incorporated	Less Than Significant Impact	No Impact

a and b. The provision of additional student housing on campus for the University students will have a beneficial effect of continuing to reduce vehicular commute trips to and from the campus and thus reducing vehicular emissions, including reducing greenhouse gases (GHG). In addition, to reduce the use of energy and the associated stationary emissions of GHG, the design of student housing will include using energy efficient lighting (includes controls) and process systems such as water heaters, furnace, and boiler units, and using energy efficient and automated controls for air conditioning. Long-term impact will be beneficial; no adverse impact will result. However, the construction of the project will generate short-term emissions, including greenhouse gas (GHG) associated with site preparation and construction. Therefore, this issue will be addressed in the EIR.

The project will not conflict nor obstruct the implementation of the South Coast Air Quality Management Plan which aims at reducing overall emissions, including greenhouse gas (GHG) emissions. The provision of student housing, a parking structure replacing existing surface parking, and soccer fields will not create additional student enrollment on campus or additional regional growth. The Air Quality Management Plan is based on regional growth projections and the project will not affect these regional projections.

VIII. HAZARDS AND HAZARDOUS MATERIALS -- Would the project:

a) Create a significant hazard to the public or the environment through the routine transport, use, or disposal of hazardous materials?	☐	☐	☒	☐
b) Create a significant hazard to the public or the environment through reasonably foreseeable upset and accident conditions involving the release of hazardous materials into the environment?	☐	☐	☐	☒
c) Emit hazardous emissions or handle hazardous or acutely hazardous materials, substances, or waste within one-quarter mile of an existing or proposed school?	☐	☐	☐	☒
d) Be located on a site which is included on a list of hazardous materials sites compiled pursuant to Government Code Section 65962.5 and, as a result, would it create a significant hazard to the public or the environment?	☐	☐	☐	☒
e) For a project located within an airport land use plan or, where such a plan has not been adopted, within two miles of a public airport or public use airport, would the project result in a safety hazard for people residing or working in the project area?	☐	☐	☐	☒

Issues:	**Potentially Significant Impact**	**Less Than Significant Impact with Mitigation Incorporated**	**Less Than Significant Impact**	**No Impact**
f) For a project within the vicinity of a private airstrip, would the project result in a safety hazard for people residing or working in the project area?	☐	☐	☐	☒
g) Impair implementation of or physically interfere with an adopted emergency response plan or emergency evacuation plan?	☐	☐	☐	☒
h) Expose people or structures to a significant risk of loss, injury or death involving wildland fires, including where wildlands are adjacent to urbanized areas or where residences are intermixed with wildlands?	☐	☐	☒	☐

a through c. The project will provide a student housing facility, parking structure, and soccer fields that do not involve the transport, use, or disposal of hazardous materials. On-site use and storage of hazardous materials will be limited to small amounts of everyday household cleaners and common chemicals used for landscaping and maintenance. The limited use of such materials is subject to California State University Guidelines. No adverse impact will result.

d through f. 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, and is not located within two miles of a public use airport or private airport. No impact will result.

g. The student housing, parking structure, and soccer fields will include the provision of all necessary emergency access in compliance with existing regulations. Therefore, the project will not impair implementation nor physically interfere with any adopted emergency response or evacuation plans. No adverse impact will result.

h. The Cal State LA campus is not located in a high wildland fire hazard area. No significant impact will result.

IX. HYDROLOGY AND WATER QUALITY

-- Would the project:

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

Issues:	**Potentially Significant Impact**	**Less Than Significant Impact with Mitigation Incorporated**	**Less Than Significant Impact**	**No Impact**
b) Substantially deplete groundwater supplies or interfere substantially with groundwater recharge such that there would be a net deficit in aquifer volume or a lowering of the local groundwater table level (e.g., the production rate of pre-existing nearby wells would drop to a level which would not support existing land uses or planned uses for which permits have been granted)?	☐	☐	☐	☒
c) Substantially alter the existing drainage pattern of the site or area, including through the alteration of the course of a stream or river, in a manner which would result in substantial erosion or siltation on- or off-site?	☐	☐	☐	☒
d) Substantially alter the existing drainage pattern of the site or area, including through the alteration of the course of a stream or river, or substantially increase the rate or amount of surface runoff in a manner which would result in flooding on- or off-site?	☐	☐	☐	☒
e) Create or contribute runoff water which would exceed the capacity of existing or planned stormwater drainage systems or provide substantial additional sources of polluted runoff?	☐	☐	☐	☒
f) Otherwise substantially degrade water quality?	☐	☐	☐	☒
g) Place housing within a 100-year flood hazard area as mapped on a federal Flood Hazard Boundary or Flood Insurance Rate Map or other flood hazard delineation map?	☐	☐	☐	☒
h) Place within a 100-year flood hazard area structures which would impede or redirect flood flows?	☐	☐	☐	☒
i) Expose people or structures to a significant risk of loss, injury or death involving flooding, including flooding as a result of the failure of a levee or dam?	☐	☐	☐	☒

Issues:	**Potentially Significant Impact**	**Less Than Significant Impact with Mitigation Incorporated**	**Less Than Significant Impact**	**No Impact**
j) Inundation by seiche, tsunami, or mudflow?	☐	☐	☐	☒

a through e. The new student housing and parking structure will replace existing impervious surface parking lots and thus, will not increase the amount or pattern of stormwater runoff. The project's provision of new soccer fields will result in a beneficial effect of replacing existing impervious surface parking with pervious surfaces that will reduce stormwater runoff from the project site. None of these facilities involves groundwater pumping that could result in depletion of groundwater. No adverse impact will result.

f through i. The Cal State LA campus is not located within a delineated 100-year flood hazard area and therefore, the project will not place housing within a flood zone area. No impact will result.

j. The campus is located inland and is not subject to tsunamis, nor is it subject to a seiche as it is not located near a large body of water. The project site is not subject to mudflows as it is relatively flat and located within the campus' interior. No adverse impact will result.

X. LAND USE AND PLANNING -- Would the project:

a) Physically divide an established community?	☐	☐	☐	☒
b) Conflict with any applicable land use plan, policy, or regulation of an agency with jurisdiction over the project (including, but not limited to the general plan, specific plan, local coastal program, or zoning ordinance) adopted for the purpose of avoiding or mitigating an environmental effect?	☐	☐	☒	☐
c) Conflict with any applicable habitat conservation plan or natural community conservation plan?	☐	☐	☐	☒

a through c. The project requires a revision to the Cal State LA Campus Master Plan. With the revision, there will be no conflict with the Campus Master Plan, and impact will be less than significant. The project will reinforce and enhance the existing student housing community within the northern portion of the campus by providing additional housing and associated dining facility, and by replacing surface parking with sport fields that provide recreational opportunities. No other land use or conservation plans apply to the campus. No adverse impact will result.

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

a and b. No mineral resources are known to exist within the Cal State LA campus. No impact will result.

Issues:	Potentially Significant Impact	Less Than Significant Impact with Mitigation Incorporated	Less Than Significant Impact	No Impact
XII. NOISE -- Would the project result in:				
a) Exposure of persons to or generation of noise levels in excess of standards established in the local general plan or noise ordinance, or applicable standards of other agencies?	☐	☐	☐	☒
b) Exposure of persons to or generation of excessive groundborne vibration or groundborne noise levels?	☐	☐	☐	☒
c) A substantial permanent increase in ambient noise levels in the project vicinity above levels existing without the project?	☐	☐	☒	☐
d) A substantial temporary or periodic increase in ambient noise levels in the project vicinity above levels existing without the project?	☐	☒	☐	☐
e) For a project located within an airport land use plan or, where such a plan has not been adopted, within two miles of a public airport or public use airport, would the project expose people residing or working in the project area to excessive noise levels?	☐	☐	☐	☒
f) For a project within the vicinity of a private airstrip, would the project expose people residing or working in the project area to excessive noise levels?	☐	☐	☐	☒

Issues:	Potentially Significant Impact	Less Than Significant Impact with Mitigation Incorporated	Less Than Significant Impact	No Impact

a, c, and d. Student housing is an integral part of campus facilities, and is not a generator of excessive noise levels. The new fields will be used by soccer players and University students for training only, with noise comparable to noise generated by other training activities at the existing sports fields on campus. However, the construction of student housing and parking structure facilities will generate short-term intermittent noise and this issue will be addressed in the EIR.

b. The student housing facilities, parking structure, and soccer fields do not involve generation of excessive vibration or groundborne noise. No impact will result and this issue will not be addressed in the EIR.

e and f. The campus is not located within an airport land use plan, within two miles of a public airport or public use airport, or within the vicinity of a private airstrip. No impact will result.

XIII. POPULATION AND HOUSING --
Would the project:

a) Induce substantial population growth in an area, either directly (for example, by proposing new homes and businesses) or indirectly (for example, through extension of roads or other infrastructure)?	☐	☐	☐	☒
b) Displace substantial numbers of existing housing, necessitating the construction of replacement housing elsewhere?	☐	☐	☐	☒
c) Displace substantial numbers of people, necessitating the construction of replacement housing elsewhere?	☐	☐	☐	☒

a through c. The provision of student housing and soccer training fields on campus does not involve displacement of people, will not affect student enrollment on campus, and therefore will not induce substantial population growth or housing demand. No impact will result.

XIV. PUBLIC SERVICES

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

Issues:	Potentially Significant Impact	Less Than Significant Impact with Mitigation Incorporated	Less Than Significant Impact	No Impact
Fire protection?	☐	☒	☐	☐
Police protection?	☐	☒	☐	☐
Schools?	☐	☐	☐	☒
Parks?	☐	☐	☐	☒
Other public facilities?	☐	☐	☐	☒

a. The new student housing, parking structure, and soccer fields will be served by the City of Los Angeles Fire Department, which provides fire protection for all campus facilities. The University's own police - aided if needed by the City Police Department and/or County Sheriff's Department, provides police protection for the campus. While no significant impact on these services is anticipated with the provision of all required safety and security features in the project's facilities, these issues will be further addressed in the EIR.

The student housing facilities will serve the University's students and the training soccer fields will be used by the University students and players already residing in the greater Los Angeles area, and therefore has no potential to generate a substantial demand for schools or recreation facilities. No impact will result.

XV. RECREATION

a) Would the project increase the use of existing neighborhood and regional parks or other recreational facilities such that substantial physical deterioration of the facility would occur or be accelerated?	☐	☐	☐	☒
b) Does the project include recreational facilities or require the construction or expansion of recreational facilities which might have an adverse physical effect on the environment?	☐	☐	☐	☒

a and b. The provision of student housing and soccer training fields on campus will not induce any population growth that will require the construction of new parks or recreational facilities that might have an adverse physical effect on the environment. No impact will result.

Issues:	**Potentially Significant Impact**	**Less Than Significant Impact with Mitigation Incorporated**	**Less Than Significant Impact**	**No Impact**
XVI. TRANSPORTATION/TRAFFIC -- Would the project:				
a) Conflict with an applicable plan, ordinance or policy establishing measures of effectiveness for the performance of the circulation system, taking into account all modes of transportation including mass transit and non-motorized travel and relevant components of the circulation system, including but not limited to intersections, streets, highways and freeways, pedestrian and bicycle paths, and mass transit?	☒	☐	☐	☐
b) Conflict with applicable congestion management program, including but not limited to level of service standards and travel demand measures, or other standards established by the county congestion management agency for designated roads or highways?	☐	☐	☒	☐
c) Result in a change in air traffic patterns, including either an increase in traffic levels or a change in location which results in substantial safety risks?	☐	☐	☐	☒
d) Substantially increase hazards due to a design feature (e.g., sharp curves or dangerous intersections) or incompatible uses (e.g., farm equipment)?	☐	☐	☐	☒
e) Result in inadequate emergency access?	☐	☐	☐	☒
f) Conflict with adopted policies plans, or programs regarding public transit, bicycle, or pedestrian facilities, or otherwise decrease the safety of such facilities?	☐	☐	☐	☒

a and b. The provision of additional student housing will reduce commute trips to campus. However, since soccer players will be coming to campus to train at the new fields, a traffic study will be prepared as part of the EIR to address these issues.

c through f. The provision of additional student housing and new soccer fields on campus will not affect air traffic patterns. The new facilities will include the provision of all required emergency access in compliance with existing regulations. No design features or uses that could result in increased hazards are part of these facilities. No impact will result.

XVII. UTILITIES AND SERVICE SYSTEMS -- Would the project:

Issues:	Potentially Significant Impact	Less Than Significant Impact with Mitigation Incorporated	Less Than Significant Impact	No Impact
a) Exceed wastewater treatment requirements of the applicable Regional Water Quality Control Board?	☐	☐	☐	☒
b) Require or result in the construction of new water or wastewater treatment facilities or expansion of existing facilities, the construction of which could cause significant environmental effects?	☐	☐	☒	☐
c) Require or result in the construction of new storm water drainage facilities or expansion of existing facilities, the construction of which could cause significant environmental effects?	☐	☐	☒	☐
d) Have sufficient water supplies available to serve the project from existing entitlements and resources, or are new or expanded entitlements needed?	☐	☒	☐	☐
e) Result in a determination by the wastewater treatment provider which serves or may serve the project that it has adequate capacity to serve the project's projected demand in addition to the provider's existing commitments?	☐	☐	☒	☐
f) Be served by a landfill with sufficient permitted capacity to accommodate the project's solid waste disposal needs?	☐	☐	☒	☐
g) Comply with federal, State, and local statutes and regulations related to solid waste?	☐	☐	☐	☒

a through e. The new student housing and dining facilities will use water and generate wastewater and solid waste, and the new soccer training fields will use water. Therefore these issues will be further evaluated in the EIR.

Issues:	Potentially Significant Impact	Less Than Significant Impact with Mitigation Incorporated	Less Than Significant Impact	No Impact
XVIII. MANDATORY FINDINGS OF SIGNIFICANCE				
a) Does the project have the potential to degrade the quality of the environment, substantially reduce the habitat of a fish or wildlife species, cause a fish or wildlife population to drop below self-sustaining levels, threaten to eliminate a plant or animal community, reduce the number or restrict the range of a rare or endangered plant or animal or eliminate important examples of the major periods of California history or prehistory?	☐	☐	☐	☒
b) Does the project have impacts that are individually limited, but cumulatively considerable? ("Cumulatively considerable" means that the incremental effects of a project are considerable when viewed in connection with the effects of past projects, the effects of other current projects, and the effects of probable future projects)?	☒	☐	☐	☐
c) Does the project have environmental effects which will cause substantial adverse effects on human beings, either directly or indirectly?	☐	☐	☐	☒

a. The project site consist of surface parking lots and an existing sport field. No plant or animal community, rare or endangered plant or animal, or fish or wildlife habitat exist on the site. No important examples of California history or prehistory are present on the site. Therefore, no adverse impact will result**.**

b. The area-wide growth, and the growth and development in the areas surrounding the campus, may result in significant traffic, air quality, and other impacts. While the effects of providing student housing, soccer training fields and a replacement parking structure by itself will be relatively limited, when combined together with the effects of the area-wide growth and development the cumulative impact may be significant. This issue will be addressed in the EIR.

c. The provision of needed student housing on campus will result in a beneficial impact of reducing commute trips and associate air pollutant emissions. The provision of training soccer fields will result in a beneficial effect of providing recreational opportunities and eliminating adverse visual effects associated with surface parking currently occupying the site. No adverse effects on people will result.

Preparers of the Initial Study

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STATE OF CALIFORNIA
GOVERNOR'S OFFICE *of* PLANNING AND RESEARCH
STATE CLEARINGHOUSE AND PLANNING UNIT

EDMUND G. BROWN JR.
GOVERNOR

KEN ALEX
DIRECTOR

Notice of Preparation

November 15, 2016

To: Reviewing Agencies

Re: North Campus Project
SCH# 2016111038

Attached for your review and comment is the Notice of Preparation (NOP) for the North Campus Project draft Environmental Impact Report (EIR).

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. This is a courtesy notice provided by the State Clearinghouse with a reminder for you to comment in a timely manner. We encourage other agencies to also respond to this notice and express their concerns early in the environmental review process.

Please direct your comments to:

Barbara Queen
California State University, Los Angeles
5151 State University Drive
Los Angeles, CA 90032

with a copy to the State Clearinghouse in the Office of Planning and Research. Please refer to the SCH number noted above in all correspondence concerning this project.

If you have any questions about the environmental document review process, please call the State Clearinghouse at (916) 445-0613.

Sincerely,

Scott Morgan
Director, State Clearinghouse

Attachments
cc: Lead Agency

1400 10th Street P.O. Box 3044 Sacramento, California 95812-3044
(916) 445-0613 FAX (916) 323-3018 www.opr.ca.gov

Document Details Report
State Clearinghouse Data Base

SCH# **2016111038**
Project Title North Campus Project
Lead Agency California State University, Los Angeles

Type **NOP** Notice of Preparation

Description The North Campus project provides for new student housing facilities, new soccer fields, and a parking structure within the northern portion of Cal State LA Campus.

Lead Agency Contact

Name Barbara Queen
Agency California State University, Los Angeles
Phone 213-343-5784 ***Fax***
email
Address 5151 State University Drive
City Los Angeles ***State*** CA ***Zip*** 90032

Project Location

County Los Angeles
City Los Angeles, City of
Region
Cross Streets
Lat / Long
Parcel No.
Township ***Range*** ***Section*** ***Base***

Proximity to:

Highways I-710,I-10
Airports
Railways
Waterways
Schools
Land Use

Project Issues Aesthetic/Visual; Agricultural Land; Air Quality; Archaeologic-Historic; Biological Resources; Cumulative Effects; Drainage/Absorption; Flood Plain/Flooding; Forest Land/Fire Hazard; Geologic/Seismic; Growth Inducing; Housing; Job Generation; Landuse; Minerals; Noise; Population/Housing Balance; Public Services; Recreation/Parks; Schools/Universities; Sewer Capacity; Social; Soil Erosion/Compaction/Grading; Solid Waste; Toxic/Hazardous; Traffic/Circulation; Vegetation; Water Quality; Water Supply; Wetland/Riparian; Wildlife

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Reviewing Agencies Resources Agency; Department of Fish and Wildlife, Region 5; Department of General Services; Office of Emergency Services, California; Native American Heritage Commission; California Highway Patrol; Air Resources Board; State Water Resources Control Board, Division of Drinking Water; Department of Toxic Substances Control; Regional Water Quality Control Board, Region 4

Date Received 11/15/2016 ***Start of Review*** 11/15/2016 ***End of Review*** 12/14/2016

Note: Blanks in data fields result from insufficient information provided by lead agency.

Notice of Completion & Environmental Document Transmittal

2016111038

Mail to: State Clearinghouse, PO Box 3044, Sacramento, CA 95812-3044 916/445-0613

Project Title: North Campus Project

Lead Agency: The Trustees of the California State University and California State University, Los Angeles
Contact Person: Barbara Queen, Director, Planning, Design and Construction
Street Address: 5151 State University Drive
Phone: (213) 343-5784
City: Los Angles Zip: 90032
County: Los Angeles

Project Location:

County: Los Angeles City/Nearest Community: Los Angeles
Cross Streets: Within the CSU Los Angeles campus Zip Code 90032 Total Acres: Approx. 5
Assessor's Parcel No. Various Section: Twp. Range: Base:
Within 2 Miles: State Hwy # I-710, I-10 Waterways:
Airports none Railways: none Schools: Various

Document Type:

CEQA:
☒ NOP
☐ Early Cons
☐ Neg Dec
☐ Draft EIR
☐ Supplement/Subsequent EIR (Prior SCH No.)
☐ Other

NEPA:
☐ NOI
☐ EA
☐ Draft EIS
☐

Other:
☐ Joint Document
☐ Final Document
☐ Other

Governor's Office of Planning & Research

NOV 15 2016

STATE CLEARINGHOUSE

Local Action Type:

☐ General Plan Update
☐ General Plan Amendment
☐ General Plan Element
☐ Community Plan
☐ Specific Plan
☐ Master Plan
☐ Planned Unit Development
☒ Site Plan
☐ Rezone
☐ Prezone
☐ Use Permit
☐ Land Division (Subdivision, etc.)
☐ Annexation
☐ Redevelopment
☐ Coastal Permit
☐ Other

Development Type:

☐ Residential: *Units* *Acres*
☐ Office: *Sq.ft.* *Acres* *Employees*
☐ Commercial: *Sq.ft.* *Acres* *Employees*
☐ Industrial: *Sq.ft.* *Acres* *Employees*
☒ Educational
☐ Recreational
☐ Water Facilities: *Type* *MGD*
☐ Transportation: *Type*
☐ Mining: *Mineral*
☐ Power: *Type* *Watts*
☐ Waste Treatment: *Type*
☐ Hazardous Waste: *Type*
☐ Other:

Funding (approx.): Federal $ State $ Total $

Project Issues Discussed in Document:

☒ Aesthetic/Visual
☒ Agricultural Land
☒ Air Quality
☒ Archeological/Historical
☐ Coastal Zone
☒ Drainage/Absorption
☐ Economic/Jobs
☐ Fiscal
☒ Flood Plain/Flooding
☒ Forest Land/Fire Hazard
☒ Geologic/Seismic
☒ Minerals
☒ Noise
☒ Population/Housing Balance
☒ Public Services/Facilities
☒ Recreation/Parks
☒ Schools/Universities
☐ Septic Systems
☒ Sewer Capacity
☒ Soil Erosion/Compaction/Grading
☒ Solid Waste
☒ Toxic Hazardous
☒ Traffic/Circulation
☒ Vegetation
☒ Water Quality
☒ Water Supply/Groundwater
☒ Wetland/Riparian
☒ Wildlife
☒ Growth Inducing
☒ Landuse
☒ Cumulative Effects
☐ Other

Present Land Use/Zoning/General Plan Designation: Cal State Los Angeles Campus Master Plan: Parking and North Field

Project Description: The North Campus project provides for new student housing facilities, new soccer fields, and a parking structure within the northern portion of Cal State LA campus.

Reviewing Agencies Checklist

Continued

KEY
S = Document sent by lead agency
X = Document sent by SCH
√ = Suggested distribution

Resources Agency
Boating & Waterways
Coastal Commission
Coastal Conservancy
Colorado River Board
Conservation
√ Fish & Wildlife
Forestry & Fire Protection
Office of Historic Preservation
Parks & Recreation
Reclamation Board
S.F. Bay Conservation & Development Commission
Water Resources (DWR)

Business, Transportation & Housing
Aeronautics
√ California Highway Patrol
√ CALTRANS District # 7
Department of Transportation Planning (headquarters)
Housing & Community Development

Food & Agriculture

Health & Welfare
Health Services

State & Consumer Services
General Services
OLA (Schools)

Environmental Protection Agency
√ Air Resources Board
√ California Waste Management Board
SWRCB: Clean Water Grants
SWRCB: Delta Unit
SWRCB: Water Quality
SWRCB: Water Rights
√ Regional WQCB # 4 (Los Angeles County)

Youth & Adult Corrections
Corrections

Independent Commission & Offices
Energy Commission
√ Native American Heritage Commission
Public Utilities Commission
Santa Monica Mountains Conservancy
√ State Lands Commission
Tahoe Regional Planning Agency

√ Other South Coast AQMD

Public Review Period (to be filled in by lead agency)

Starting Date November 15, 2016
Ending Date December 14, 2016
Signature for Barbara Queen
Date November 14, 2016

Lead Agency (Complete if applicable):
Consulting Firm: Parsons Brinckerhoff, Inc.
Address: 444 South Flower Street, Ste.800
City/State/Zip: Los Angeles, CA 90071
Contact: Irena Finkelstein, AICP
Phone: (213) 896-5648

Applicant: Same as Lead Agency
Address:
City/State/Zip:
Phone:

For SCH Use Only:
Date Received at SCH
Date Review Starts
Date to Agencies
Date to SCH
Clearance Date
Notes:

NOP Distribution List

County: Los Angeles CR

SCH# 2016111038

esources Agency

☒ **Resources Agency**
Nadell Gayou

☐ **Dept. of Boating & Waterways**
Denise Peterson

☐ **California Coastal Commission**
Elizabeth A. Fuchs

☐ **Colorado River Board**
Lisa Johansen

☐ **Dept. of Conservation**
Elizabeth Carpenter

☐ **California Energy Commission**
Eric Knight

☐ **Cal Fire**
Dan Foster

☐ **Central Valley Flood Protection Board**
James Herota

☐ **Office of Historic Preservation**
Ron Parsons

☒ **Dept of Parks & Recreation**
Environmental Stewardship Section

☐ **California Department of Resources, Recycling & Recovery**
Sue O'Leary

☐ **S.F. Bay Conservation & Dev't. Comm.**
Steve Goldbeck

☐ **Dept. of Water Resources**
Resources Agency
Nadell Gayou

Fish and Game

☐ **Depart. of Fish & Wildlife**
Scott Flint
Environmental Services Division

☐ **Fish & Wildlife Region 1**
Curt Babcock

☐ **Fish & Wildlife Region 1E**
Laurie Harnsberger

☐ **Fish & Wildlife Region 2**
Jeff Drongesen

☐ **Fish & Wildlife Region 3**
Craig Weightman

☐ **Fish & Wildlife Region 4**
Julie Vance

☒ **Fish & Wildlife Region 5**
Leslie Newton-Reed
Habitat Conservation Program

☐ **Fish & Wildlife Region 6**
Tiffany Ellis
Habitat Conservation Program

☐ **Fish & Wildlife Region 6 I/M**
Heidi Calvert
Inyo/Mono, Habitat Conservation Program

☐ **Dept. of Fish & Wildlife M**
William Paznokas
Marine Region

Other Departments

☐ **Food & Agriculture**
Sandra Schubert
Dept. of Food and Agriculture

☒ **Depart. of General Services**
Public School Construction

☐ **Dept. of General Services**
Cathy Buck/George Carollo
Environmental Services Section

☐ **Delta Stewardship Council**
Kevan Samsam

☐ **Housing & Comm. Dev.**
CEQA Coordinator
Housing Policy Division

Independent Commissions,Boards

☐ **Delta Protection Commission**
Erik Vink

☒ **OES (Office of Emergency Services)**
Monique Wilber

☒ **Native American Heritage Comm.**
Debbie Treadway

☐ **Public Utilities Commission**
Supervisor

☐ **Santa Monica Bay Restoration**
Guangyu Wang

☐ **State Lands Commission**
Jennifer Deleong

☐ **Tahoe Regional Planning Agency (TRPA)**
Cherry Jacques

Cal State Transportation Agency CalSTA

☐ **Caltrans - Division of Aeronautics**
Philip Crimmins

☐ **Caltrans – Planning HQ LD-IGR**
Terri Pencovic

☒ **California Highway Patrol**
Suzann Ikeuchi
Office of Special Projects

Dept. of Transportation

☐ **Caltrans, District 1**
Rex Jackman

☐ **Caltrans, District 2**
Marcelino Gonzalez

☐ **Caltrans, District 3**
Eric Federicks – South
Susan Zanchi - North

☐ **Caltrans, District 4**
Patricia Maurice

☐ **Caltrans, District 5**
Larry Newland

☐ **Caltrans, District 6**
Michael Navarro

☒ **Caltrans, District 7**
Dianna Watson

☐ **Caltrans, District 8**
Mark Roberts

☐ **Caltrans, District 9**
Gayle Rosander

☐ **Caltrans, District 10**
Tom Dumas

☐ **Caltrans, District 11**
Jacob Armstrong

☐ **Caltrans, District 12**
Maureen El Harake

Cal EPA

Air Resources Board

☒ Airport & Freight
Cathi Slaminski

☐ Transportation Projects
Nesamani Kalandiyur

☐ Industrial/Energy Projects
Mike Tollstrup

☐ **State Water Resources Control Board**
Regional Programs Unit
Division of Financial Assistance

☒ **State Water Resources Control Board**
Cindy Forbes – Asst Deputy
Division of Drinking Water

☐ **State Water Resources Control Board**
Div. Drinking Water #________

☐ **State Water Resources Control Board**
Student Intern, 401 Water Quality Certification Unit
Division of Water Quality

☐ **State Water Resouces Control Board**
Phil Crader
Division of Water Rights

☒ **Dept. of Toxic Substances Control**
CEQA Tracking Center

☐ **Department of Pesticide Regulation**
CEQA Coordinator

Regional Water Quality Control Board (RWQCB)

☐ **RWQCB 1**
Cathleen Hudson
North Coast Region (1)

☐ **RWQCB 2**
Environmental Document Coordinator
San Francisco Bay Region (2)

☐ **RWQCB 3**
Central Coast Region (3)

☒ **RWQCB 4**
Teresa Rodgers
Los Angeles Region (4)

☐ **RWQCB 5S**
Central Valley Region (5)

☐ **RWQCB 5F**
Central Valley Region (5)
Fresno Branch Office

☐ **RWQCB 5R**
Central Valley Region (5)
Redding Branch Office

☐ **RWQCB 6**
Lahontan Region (6)

☐ **RWQCB 6V**
Lahontan Region (6)
Victorville Branch Office

☐ **RWQCB 7**
Colorado River Basin Region (7)

☐ **RWQCB 8**
Santa Ana Region (8)

☐ **RWQCB 9**
San Diego Region (9)

☐ **Other** ____________________
____
____

☐ ____________________
Conservancy

Last Updated 7/19/2016

STATE OF CALIFORNIA Edmund G. Brown Jr., Governor

NATIVE AMERICAN HERITAGE COMMISSION
1550 Harbor Blvd., Suite 100
West Sacramento, CA 95691
Phone (916) 373-3710
Fax (916) 373-5471
Email: nahc@nahc.ca.gov
Website: http://www.nahc.ca.gov
Twitter: @CA_NAHC

November 21, 2016

Barbara Queen
California State University, Los Angeles
5151 State University Drive
Los Angeles, CA 90032

sent via e-mail:
bqueen@calstatela.edu

RE: SCH# 2016111038; North Campus Project, Notice of Preparation for Draft Environmental Impact Report, Los Angeles County, California

Dear Ms. Queen:

The Native American Heritage Commission has received the Notice of Preparation (NOP) for the project referenced above. The California Environmental Quality Act (CEQA) (Pub. Resources Code § 21000 et seq.), specifically Public Resources Code section 21084.1, states that a project that may cause a substantial adverse change in the significance of an historical resource is a project that may have a significant effect on the environment. (Pub. Resources Code § 21084.1; Cal. Code Regs., tit.14, § 15064.5 (b) (CEQA Guidelines Section 15064.5 (b)). If there is substantial evidence, in light of the whole record before a lead agency, that a project may have a significant effect on the environment, an environmental impact report (EIR) shall be prepared. (Pub. Resources Code § 21080 (d); Cal. Code Regs., tit. 14, § 15064 subd.(a)(1) (CEQA Guidelines § 15064 (a)(1)). In order to determine whether a project will cause a substantial adverse change in the significance of a historical resource, a lead agency will need to determine whether there are historical resources with the area of project effect (APE).

CEQA was amended significantly in 2014. Assembly Bill 52 (Gatto, Chapter 532, Statutes of 2014) (AB 52) amended CEQA to create a **separate category of cultural resources**, "tribal cultural resources" (Pub. Resources Code § 21074) and provides that a project with an effect that may cause a substantial adverse change in the significance of a tribal cultural resource is a project that may have a significant effect on the environment (Pub. Resources Code § 21084.2). Please reference California Natural Resources Agency (2016) "Final Text for tribal cultural resources update to Appendix G: Environmental Checklist Form," http://resources.ca.gov/ceqa/docs/ab52/Clean-final-AB-52-App-G-text-Submitted.pdf. Public agencies shall, when feasible, avoid damaging effects to any tribal cultural resource. (Pub. Resources Code § 21084.3 (a)). **AB 52 applies to any project for which a notice of preparation or a notice of negative declaration or mitigated negative declaration is filed on or after July 1, 2015.** If your project involves the adoption of or amendment to a general plan or a specific plan, or the designation or proposed designation of open space, on or after March 1, 2005, it may also be subject to Senate Bill 18 (Burton, Chapter 905, Statutes of 2004) (SB 18). **Both SB 18 and AB 52 have tribal consultation requirements**. If your project is also subject to the federal National Environmental Policy Act (42 U.S.C. § 4321 et seq.) (NEPA), the tribal consultation requirements of Section 106 of the National Historic Preservation Act of 1966 (154 U.S.C. 300101, 36 C.F.R. § 800 et seq.) may also apply.

The NAHC recommends **lead agencies consult with all California Native American tribes** that are traditionally and culturally affiliated with the geographic area of your proposed project as early as possible in order to avoid inadvertent discoveries of Native American human remains and best protect tribal cultural resources. Below is a brief summary of portions of AB 52 and SB 18 as well as the NAHC's recommendations for conducting cultural resources assessments. **Consult your legal counsel about compliance with AB 52 and SB 18 as well as compliance with any other applicable laws.**

AB 52

AB 52 has added to CEQA the additional requirements listed below, along with many other requirements:

1. Fourteen Day Period to Provide Notice of Completion of an Application/Decision to Undertake a Project: Within fourteen (14) days of determining that an application for a project is complete or of a decision by a public agency to undertake a project, a **lead agency** shall provide formal notification to a designated contact of, or tribal representative of, traditionally and culturally affiliated California Native American tribes that have requested notice, to be accomplished by at least one written notice that includes:
    a. A brief description of the project.
    b. The lead agency contact information.
    c. Notification that the California Native American tribe has 30 days to request consultation. (Pub. Resources Code § 21080.3.1 (d)).

   - **d.** A "California Native American tribe" is defined as a Native American tribe located in California that is on the contact list maintained by the NAHC for the purposes of Chapter 905 of Statutes of 2004 (SB 18). (Pub. Resources Code § 21073).

2. Begin Consultation Within 30 Days of Receiving a Tribe's Request for Consultation and Before Releasing a Negative Declaration, Mitigated Negative Declaration, or Environmental Impact Report: A **lead agency** shall begin the consultation process within 30 days of receiving a request for consultation from a California Native American tribe that is traditionally and culturally affiliated with the geographic area of the proposed project. (Pub. Resources Code § 21080.3.1, subds. (d) and (e)) and prior to the release of a negative declaration, mitigated negative declaration or environmental impact report. (Pub. Resources Code § 21080.3.1(b)).
   - **a.** For purposes of AB 52, "consultation shall have the same meaning as provided in Gov. Code § 65352.4 (SB 18). (Pub. Resources Code § 21080.3.1 (b)).

3. Mandatory Topics of Consultation If Requested by a Tribe: The following topics of consultation, if a tribe requests to discuss them, are mandatory topics of consultation:
   - **a.** Alternatives to the project.
   - **b.** Recommended mitigation measures.
   - **c.** Significant effects. (Pub. Resources Code § 21080.3.2 (a)).

4. Discretionary Topics of Consultation: The following topics are discretionary topics of consultation:
   - **a.** Type of environmental review necessary.
   - **b.** Significance of the tribal cultural resources.
   - **c.** Significance of the project's impacts on tribal cultural resources.
   - **d.** If necessary, project alternatives or appropriate measures for preservation or mitigation that the tribe may recommend to the lead agency. (Pub. Resources Code § 21080.3.2 (a)).

5. Confidentiality of Information Submitted by a Tribe During the Environmental Review Process: With some exceptions, any information, including but not limited to, the location, description, and use of tribal cultural resources submitted by a California Native American tribe during the environmental review process shall not be included in the environmental document or otherwise disclosed by the lead agency or any other public agency to the public, consistent with Government Code sections 6254 (r) and 6254.10. Any information submitted by a California Native American tribe during the consultation or environmental review process shall be published in a confidential appendix to the environmental document unless the tribe that provided the information consents, in writing, to the disclosure of some or all of the information to the public. (Pub. Resources Code § 21082.3 (c)(1)).

6. Discussion of Impacts to Tribal Cultural Resources in the Environmental Document: If a project may have a significant impact on a tribal cultural resource, the lead agency's environmental document shall discuss both of the following:
   - **a.** Whether the proposed project has a significant impact on an identified tribal cultural resource.
   - **b.** Whether feasible alternatives or mitigation measures, including those measures that may be agreed to pursuant to Public Resources Code section 21082.3, subdivision (a), avoid or substantially lessen the impact on the identified tribal cultural resource. (Pub. Resources Code § 21082.3 (b)).

7. Conclusion of Consultation: Consultation with a tribe shall be considered concluded when either of the following occurs:
   - **a.** The parties agree to measures to mitigate or avoid a significant effect, if a significant effect exists, on a tribal cultural resource; or
   - **b.** A party, acting in good faith and after reasonable effort, concludes that mutual agreement cannot be reached. (Pub. Resources Code § 21080.3.2 (b)).

8. Recommending Mitigation Measures Agreed Upon in Consultation in the Environmental Document: Any mitigation measures agreed upon in the consultation conducted pursuant to Public Resources Code section 21080.3.2 shall be recommended for inclusion in the environmental document and in an adopted mitigation monitoring and reporting program, if determined to avoid or lessen the impact pursuant to Public Resources Code section 21082.3, subdivision (b), paragraph 2, and shall be fully enforceable. (Pub. Resources Code § 21082.3 (a)).

9. Required Consideration of Feasible Mitigation: If mitigation measures recommended by the staff of the lead agency as a result of the consultation process are not included in the environmental document or if there are no agreed upon mitigation measures at the conclusion of consultation, or if consultation does not occur, and if substantial evidence demonstrates that a project will cause a significant effect to a tribal cultural resource, the lead agency shall consider feasible mitigation pursuant to Public Resources Code section 21084.3 (b). (Pub. Resources Code § 21082.3 (e)).

10. Examples of Mitigation Measures That, If Feasible, May Be Considered to Avoid or Minimize Significant Adverse Impacts to Tribal Cultural Resources:

- **a.** Avoidance and preservation of the resources in place, including, but not limited to:
    - **i.** Planning and construction to avoid the resources and protect the cultural and natural context.
    - **ii.** Planning greenspace, parks, or other open space, to incorporate the resources with culturally appropriate protection and management criteria.
- **b.** Treating the resource with culturally appropriate dignity, taking into account the tribal cultural values and meaning of the resource, including, but not limited to, the following:
    - **i.** Protecting the cultural character and integrity of the resource.
    - **ii.** Protecting the traditional use of the resource.
    - **iii.** Protecting the confidentiality of the resource.
- **c.** Permanent conservation easements or other interests in real property, with culturally appropriate management criteria for the purposes of preserving or utilizing the resources or places.
- **d.** Protecting the resource. (Pub. Resource Code § 21084.3 (b)).
- **e.** Please note that a federally recognized California Native American tribe or a nonfederally recognized California Native American tribe that is on the contact list maintained by the NAHC to protect a California prehistoric, archaeological, cultural, spiritual, or ceremonial place may acquire and hold conservation easements if the conservation easement is voluntarily conveyed. (Civ. Code § 815.3 (c)).
- **f.** Please note that it is the policy of the state that Native American remains and associated grave artifacts shall be repatriated. (Pub. Resources Code § 5097.991).

11. Prerequisites for Certifying an Environmental Impact Report or Adopting a Mitigated Negative Declaration or Negative Declaration with a Significant Impact on an Identified Tribal Cultural Resource: An environmental impact report may not be certified, nor may a mitigated negative declaration or a negative declaration be adopted unless one of the following occurs:
    - **a.** The consultation process between the tribes and the lead agency has occurred as provided in Public Resources Code sections 21080.3.1 and 21080.3.2 and concluded pursuant to Public Resources Code section 21080.3.2.
    - **b.** The tribe that requested consultation failed to provide comments to the lead agency or otherwise failed to engage in the consultation process.
    - **c.** The lead agency provided notice of the project to the tribe in compliance with Public Resources Code section 21080.3.1 (d) and the tribe failed to request consultation within 30 days. (Pub. Resources Code § 21082.3 (d)).

    This process should be documented in the Cultural Resources section of your environmental document.

The NAHC's PowerPoint presentation titled, "Tribal Consultation Under AB 52: Requirements and Best Practices" may be found online at: http://nahc.ca.gov/wp-content/uploads/2015/10/AB52TribalConsultation_CalEPAPDF.pdf

SB 18

SB 18 applies to local governments and requires **local governments** to contact, provide notice to, refer plans to, and consult with tribes prior to the adoption or amendment of a general plan or a specific plan, or the designation of open space. (Gov. Code § 65352.3). Local governments should consult the Governor's Office of Planning and Research's "Tribal Consultation Guidelines," which can be found online at: https://www.opr.ca.gov/docs/09_14_05_Updated_Guidelines_922.pdf

Some of SB 18's provisions include:

1. Tribal Consultation: If a local government considers a proposal to adopt or amend a general plan or a specific plan, or to designate open space it is required to contact the appropriate tribes identified by the NAHC by requesting a "Tribal Consultation List." If a tribe, once contacted, requests consultation the local government must consult with the tribe on the plan proposal. **A tribe has 90 days from the date of receipt of notification to request consultation unless a shorter timeframe has been agreed to by the tribe.** (Gov. Code § 65352.3 (a)(2)).
2. No Statutory Time Limit on SB 18 Tribal Consultation. There is no statutory time limit on SB 18 tribal consultation.
3. Confidentiality: Consistent with the guidelines developed and adopted by the Office of Planning and Research pursuant to Gov. Code section 65040.2, the city or county shall protect the confidentiality of the information concerning the specific identity, location, character, and use of places, features and objects described in Public Resources Code sections 5097.9 and 5097.993 that are within the city's or county's jurisdiction. (Gov. Code § 65352.3 (b)).
4. Conclusion of SB 18 Tribal Consultation: Consultation should be concluded at the point in which:
    - **a.** The parties to the consultation come to a mutual agreement concerning the appropriate measures for preservation or mitigation; or
    - **b.** Either the local government or the tribe, acting in good faith and after reasonable effort, concludes that mutual agreement cannot be reached concerning the appropriate measures of preservation or mitigation. (Tribal Consultation Guidelines, Governor's Office of Planning and Research (2005) at p. 18).

Agencies should be aware that neither AB 52 nor SB 18 precludes agencies from initiating tribal consultation with tribes that are traditionally and culturally affiliated with their jurisdictions before the timeframes provided in AB 52 and SB 18. For that reason, we urge you to continue to request Native American Tribal Contact Lists and "Sacred Lands File" searches from the NAHC. The request forms can be found online at: http://nahc.ca.gov/resources/forms/

<u>NAHC Recommendations for Cultural Resources Assessments</u>

To adequately assess the existence and significance of tribal cultural resources and plan for avoidance, preservation in place, or barring both, mitigation of project-related impacts to tribal cultural resources, the NAHC recommends the following actions:

1. Contact the appropriate regional California Historical Research Information System (CHRIS) Center (http://ohp.parks.ca.gov/?page_id=1068) for an archaeological records search. The records search will determine:
    - **a.** If part or all of the APE has been previously surveyed for cultural resources.
    - **b.** If any known cultural resources have been already been recorded on or adjacent to the APE.
    - **c.** If the probability is low, moderate, or high that cultural resources are located in the APE.
    - **d.** If a survey is required to determine whether previously unrecorded cultural resources are present.

2. If an archaeological inventory survey is required, the final stage is the preparation of a professional report detailing the findings and recommendations of the records search and field survey.
    - **a.** The final report containing site forms, site significance, and mitigation measures should be submitted immediately to the planning department. All information regarding site locations, Native American human remains, and associated funerary objects should be in a separate confidential addendum and not be made available for public disclosure.
    - **b.** The final written report should be submitted within 3 months after work has been completed to the appropriate regional CHRIS center.

3. Contact the NAHC for:
    - **a.** A Sacred Lands File search. Remember that tribes do not always record their sacred sites in the Sacred Lands File, nor are they required to do so. A Sacred Lands File search is not a substitute for consultation with tribes that are traditionally and culturally affiliated with the geographic area of the project's APE.
    - **b.** A Native American Tribal Consultation List of appropriate tribes for consultation concerning the project site and to assist in planning for avoidance, preservation in place, or, failing both, mitigation measures.

4. Remember that the lack of surface evidence of archaeological resources (including tribal cultural resources) does not preclude their subsurface existence.
    - **a.** Lead agencies should include in their mitigation and monitoring reporting program plan provisions for the identification and evaluation of inadvertently discovered archaeological resources per Cal. Code Regs., tit. 14, section 15064.5(f) (CEQA Guidelines section 15064.5(f)). In areas of identified archaeological sensitivity, a certified archaeologist and a culturally affiliated Native American with knowledge of cultural resources should monitor all ground-disturbing activities.
    - **b.** Lead agencies should include in their mitigation and monitoring reporting program plans provisions for the disposition of recovered cultural items that are not burial associated in consultation with culturally affiliated Native Americans.
    - **c.** Lead agencies should include in their mitigation and monitoring reporting program plans provisions for the treatment and disposition of inadvertently discovered Native American human remains. Health and Safety Code section 7050.5, Public Resources Code section 5097.98, and Cal. Code Regs., tit. 14, section 15064.5, subdivisions (d) and (e) (CEQA Guidelines section 15064.5, subds. (d) and (e)) address the processes to be followed in the event of an inadvertent discovery of any Native American human remains and associated grave goods in a location other than a dedicated cemetery.

Please contact me if you need any additional information at gayle.totton@nahc.ca.gov.

Sincerely,

Gayle Totton, M.A., PhD.
Associate Governmental Program Analyst

cc: State Clearinghouse

STATE OF CALIFORNIA—CALIFORNIA STATE TRANSPORTATION AGENCY
EDMUND G. BROWN Jr., Governor

DEPARTMENT OF TRANSPORTATION
DISTRICT 7-OFFICE OF REGIONAL PLANNING
100 S. MAIN STREET, MS 16
LOS ANGELES, CA 90012
PHONE (213) 897-0067
FAX (213) 897-1337
www.dot.ca.gov

Serious drought.
Help save water!

December 14, 2016

Ms. Barbara Queen
California State University, Los Angeles
5151 State University Drive
Los Angeles, CA 90032

RE: North Campus Project
Notice of Preparation for EIR
Vic: 710 / PM: R26.779
GTS# 07-LA-2016-00304
SCH# 2016111038

Dear Ms. Queen:

Thank you for including the California Department of Transportation (Caltrans) in the environmental review process for the above referenced project. The project involves providing new student housing facilities, new soccer fields, and a parking structure within the northern portion of the Cal State LA (CSULA) campus. The housing component will provide 1,500 beds for students and an associated dining facility. An existing field will be upgraded and include approximately 30,000 SF facility with fitness rooms, locker rooms, administrative rooms and other amenities. A portion of the project will include displacing a surface parking lot, a new parking structure located next to existing Parking Structure C and provide approximately 1,650 spaces. The CSULA campus sits immediately adjacent to I-10 and I-710.

Based on the information received, Caltrans has the following comments:

> The Initial Study states the provision of additional student housing will reduce commute trips to campus. As the campus grows it is true that additional on-campus student housing will result in some new and existing students no longer needing to commute to the campus. However, unless all trips students in the new housing generate are isolated to the CSULA campus, there may be additional trips produced as a result of the project on nearby State and Local facilities. This is in addition to the new fields which are expected to attract new trips to the area. As such, the student housing should be taken into consideration when preparing the traffic study.
>
> Due to the project site's proximity to two major freeways, I-10 and I-710, Caltrans would like to see peak hour queuing analyses for nearby on- and off-ramps in the area. We would also like to see an analysis of ADT, AM and PM peak-hour volumes for both the existing and future conditions in the general affected area. Existing conditions should include bicycle and pedestrian traffic.

In light of state legislation SB 743, at this stage the lead agency may choose to proceed with a vehicle miles traveled (VMT) transportation analysis instead of a more traditional level of service (LOS) analysis for the traffic study. However, irrespective of methodology used, any transportation-related impacts should be addressed through appropriate multimodal mitigation measures to reduce the number of vehicle trips generated by the project. Such measures may include, but are not limited to: installing safe and secure bicycle parking/storage for students and visitors; providing on-site car-sharing services; reducing the amount of parking associated with the project; and/or decoupling student housing costs and parking costs. Measures that promote alternatives to car use are especially opportune as the campus is served by numerous bus lines, including Metro's rapid, high-frequency Silver Line bus.

Please note that existing research on parking suggests that providing cheap and plentiful car parking encourages and enables more driving. Cal State LA should be recognize of the role parking plays in generating car use, and consider alternative measures to promote car-sharing, carpooling, active transportation and public transit. With this in mind, strong consideration should be given to providing safe, pleasant, and convenient on-site bicycle parking and other amenities for non-automobile modes.

Regional and State level policy goals related to sustainable transportation seek to reduce the number of trips made by driving, reduce greenhouse gas emissions, and encourage alternative modes of travel. Caltrans' Strategic Management Plan has set a target of tripling trips made by bicycling, doubling trips made by walking and public transit by 2020. The Strategic Plan also seeks to achieve a 15% reduction in statewide per capita vehicle miles traveled by 2020. Similar ambitious goals are put forward in Caltrans' 2040 Transportation Plan, and the Southern California Association of Governments' Regional Transportation Plan. Statewide legislation such as AB 32 and SB 375, as well as Governor Executive Orders S-3-05 and B-16-12, echo the need to pursue more sustainable development and transportation.

If you have any questions regarding these comments, please contact project coordinator Severin Martinez, at (213)-897-0067 or severin.martinez@dot.ca.gov and refer to GTS# LA-2016-00304.

Sincerely,

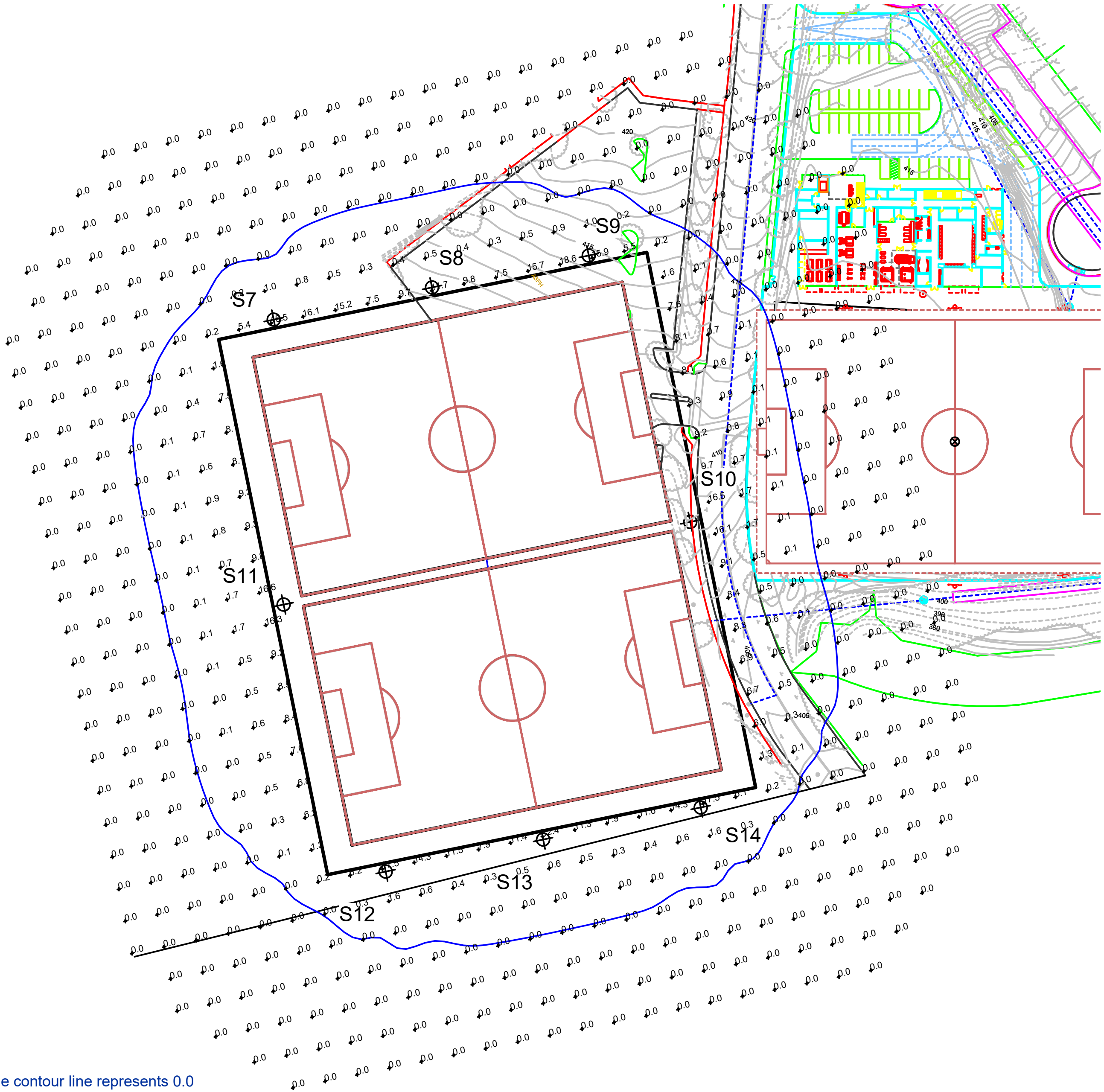
Dianna Watson

DIANNA WATSON
LD-IGR/CEQA Branch Chief

cc: Scott Morgan, State Clearinghouse

Appendix B

Lighting Analysis



NOTES: The blue contour line represents 0.0 horizontal foot-candle. The furthest point away from the playing surface is 100 feet. See 100' liner spill line on next page.

Pole location(s) ⌖ dimensions are relative to 0,0 reference point(s) ⊗

ENGINEERED DESIGN By: Shawn Moyer • File #184289-75FC-B • 28-Feb-17

Cal State LA Soccer Phase 2

Los Angeles,CA

GRID SUMMARY

Name:	**150' Spill**
Spacing:	30.0' x 30.0'
Height:	2.9' above grade

ILLUMINATION SUMMARY

MAINTAINED HORIZONTAL FOOTCANDLES

	Entire Grid
Scan Average:	**1.1**
Maximum:	18.6
Minimum:	0.0
No. of Points:	558

LUMINAIRE INFORMATION

Color / CRI:	5700K - 75 CRI
Luminaire Output:	121,000 lumens
No. of Luminaires:	**120**
Total Load:	138.0 kW

Lumen Maintenance

Luminaire Type	L90 hrs	L80 hrs	L70 hrs
TLC-LED-1150	>51,000	>51,000	>51,000

Reported per TM-21-11. See luminaire datasheet for details.

Guaranteed Performance: The ILLUMINATION described above is guaranteed per your Musco Warranty document and includes a 0.95 dirt depreciation factor.

Field Measurements: Individual field measurements may vary from computer-calculated predictions and should be taken in accordance with IESNA RP-6-15.

Electrical System Requirements: Refer to Amperage Draw Chart and/or the **"Musco Control System Summary"** for electrical sizing.

Installation Requirements: Results assume ± 3% nominal voltage at line side of the driver and structures located within 3 feet (1m) of design locations.

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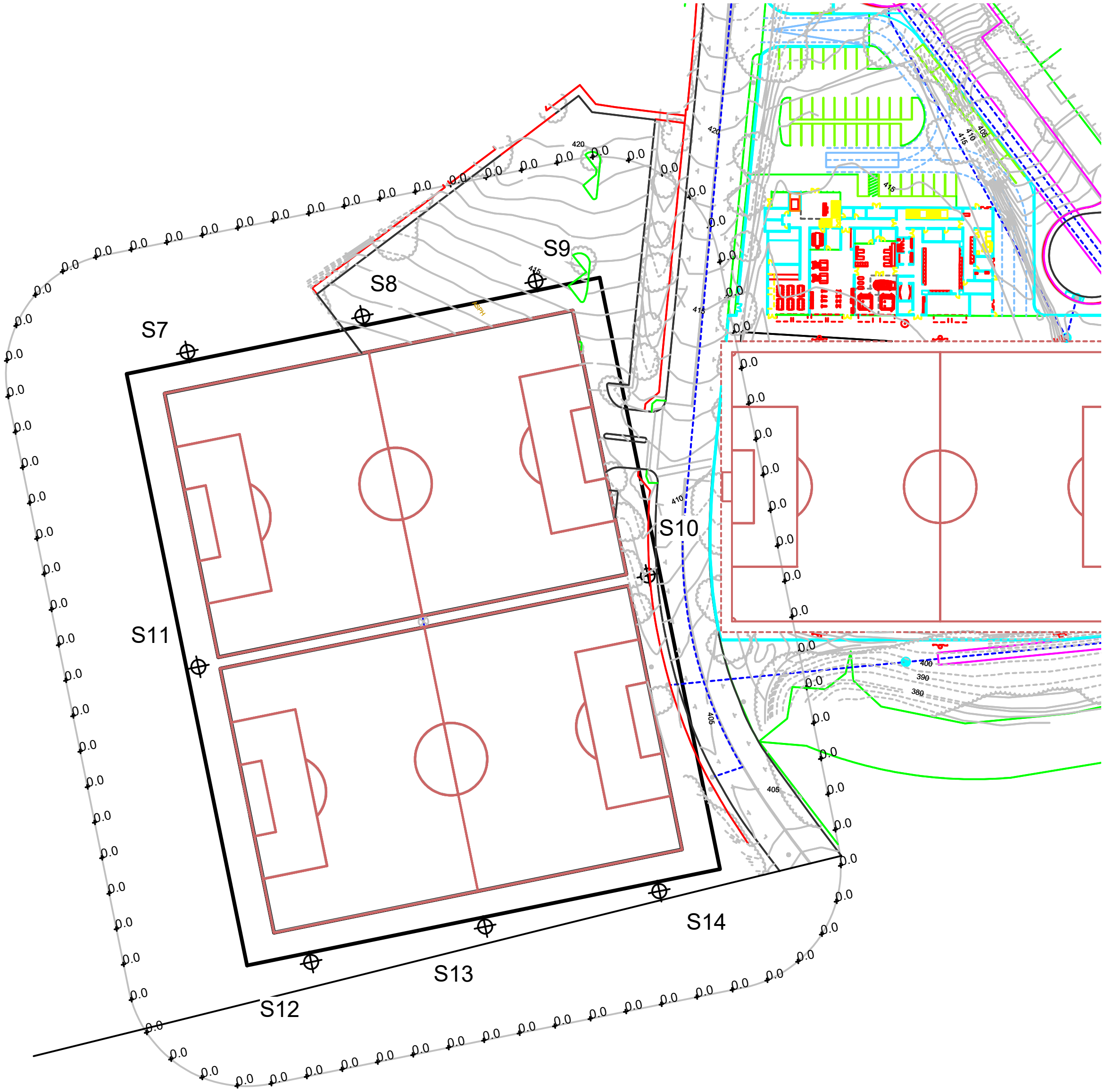

Cal State LA Soccer Phase 2

Los Angeles,CA

GRID SUMMARY

Name:	**100' Spill**
Spacing:	30.0'
Height:	3.0' above grade

ILLUMINATION SUMMARY

MAINTAINED HORIZONTAL FOOTCANDLES

	Entire Grid
Scan Average:	**0.0**
Maximum:	0.0
Minimum:	0.0
No. of Points:	81

LUMINAIRE INFORMATION

Color / CRI:	5700K - 75 CRI
Luminaire Output:	121,000 lumens
No. of Luminaires:	**120**
Total Load:	138.0 kW

	Lumen Maintenance		
Luminaire Type	L90 hrs	L80 hrs	L70 hrs
TLC-LED-1150	>51,000	>51,000	>51,000

Reported per TM-21-11. See luminaire datasheet for details.

Guaranteed Performance: The ILLUMINATION described above is guaranteed per your Musco Warranty document and includes a 0.95 dirt depreciation factor.

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Electrical System Requirements: Refer to Amperage Draw Chart and/or the **"Musco Control System Summary"** for electrical sizing.

Installation Requirements: Results assume ± 3% nominal voltage at line side of the driver and structures located within 3 feet (1m) of design locations.

SCALE IN FEET 1 : 150

0' 150' 300'

Pole location(s) ⌖ dimensions are relative to 0,0 reference point(s) ⊗

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ILLUMINATION SUMMARY

Cal State LA Soccer Phase 2

Los Angeles,CA

Lighting System

Pole / Fixture Summary

Pole ID	Pole Height	Mtg Height	Fixture Qty	Luminaire Type	Load	Group
S7-S9, S12-S14	80'	80'	10	TLC-LED-1150	11.50 kW	B
S10-S11	90'	90'	30	TLC-LED-1150	34.50 kW	B
8			***120***		***138.00 kW***	

Group Summary

Group	Description	Avg Load	Max Load	Fixture Qty
B	South Fields	138.0 kW	138.0 kW	120

Fixture Type Summary

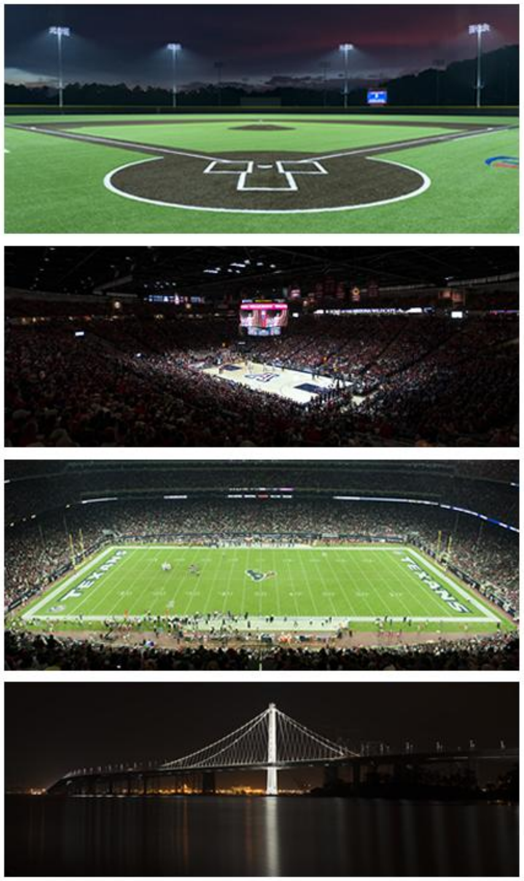
Type	Source	Wattage	Lumens	L90	L80	L70	Quantity
TLC-LED-1150	LED 5700K - 75 CRI	1150W	121,000	>51,000	>51,000	>51,000	120

Light Level Summary

Calculation Grid Summary

Grid Name	Calculation Metric	Illumination				Groups	Fixture Qty
		Ave	Min	Max	Max/Min		
East Property Spill	Horizontal	1.68	0	9.72	0.00	B	120
East Property Spill	Max Candela (by Fixture)	12938	0	33132	0.00	B	120
East Property Spill	Max Vertical Illuminance Metric	1.79	0	9.80	0.00	B	120
South Field 1	Horizontal Illuminance	75	53	101	1.90	B	120
South Field 2	Horizontal Illuminance	75	52	99	1.91	B	120

From Hometown to Professional



ENGINEERED DESIGN By: Logan Conrad • File #184289-75FC • 21-Feb-17

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EQUIPMENT LIST FOR AREAS SHOWN

Pole				Luminaires				
QTY	LOCATION	SIZE	GRADE ELEVATION	MOUNTING HEIGHT	LUMINAIRE TYPE	QTY / POLE	THIS GRID	OTHER GRIDS
2	S10-S11	90'	0'	90'	TLC-LED-1150	30	30	0
6	S12-S14 S7-S9	80'	0'	80'	TLC-LED-1150	10	10	0
8	TOTALS					120	120	0

Cal State LA Soccer Phase 2

Los Angeles,CA

GRID SUMMARY

Name:	**South Field 1**
Size:	345' x 223'
Spacing:	30.0' x 30.0'
Height:	3.0' above grade

ILLUMINATION SUMMARY

MAINTAINED HORIZONTAL FOOTCANDLES

	Entire Grid
Guaranteed Average:	**75**
Scan Average:	75.0
Maximum:	101
Minimum:	53
Avg / Min:	1.41
Guaranteed Max / Min:	**2**
Max / Min:	1.90
UG (adjacent pts):	1.53
CU:	0.45
No. of Points:	96

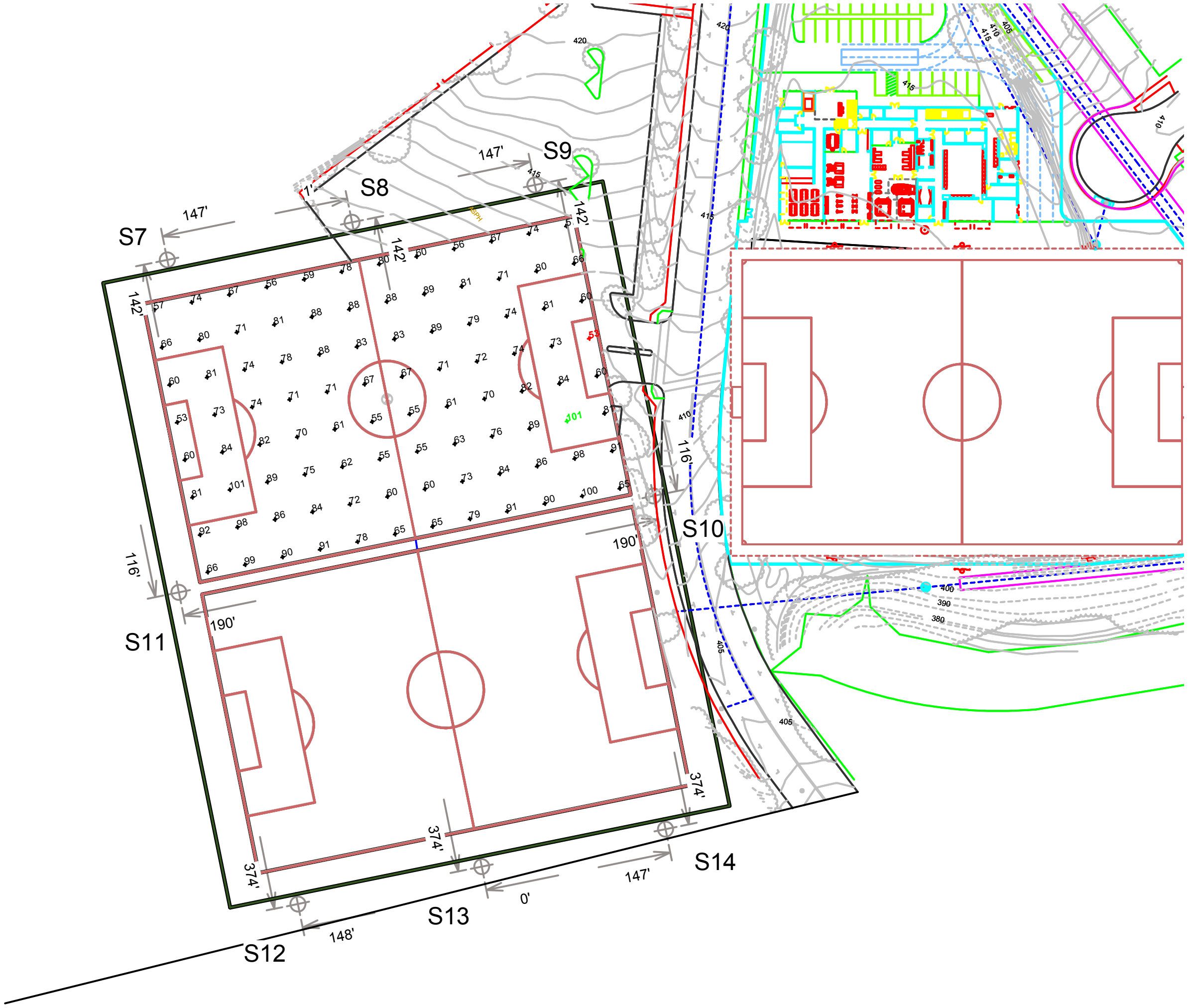
LUMINAIRE INFORMATION

Color / CRI:	5700K - 75 CRI
Luminaire Output:	121,000 lumens
No. of Luminaires:	**120**
Total Load:	138.0 kW

Lumen Maintenance

Luminaire Type	L90 hrs	L80 hrs	L70 hrs
TLC-LED-1150	>51,000	>51,000	>51,000

Reported per TM-21-11. See luminaire datasheet for details.



Guaranteed Performance: The ILLUMINATION described above is guaranteed per your Musco Warranty document and includes a 0.95 dirt depreciation factor.

Field Measurements: Individual field measurements may vary from computer-calculated predictions and should be taken in accordance with IESNA RP-6-15.

Electrical System Requirements: Refer to Amperage Draw Chart and/or the **"Musco Control System Summary"** for electrical sizing.

Installation Requirements: Results assume ± 3% nominal voltage at line side of the driver and structures located within 3 feet (1m) of design locations.

SCALE IN FEET 1 : 150

0' 150' 300'

Pole location(s) ⌖ dimensions are relative to 0,0 reference point(s) ⊗

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EQUIPMENT LIST FOR AREAS SHOWN

Pole				Luminaires				
QTY	LOCATION	SIZE	GRADE ELEVATION	MOUNTING HEIGHT	LUMINAIRE TYPE	QTY / POLE	THIS GRID	OTHER GRIDS
2	S10-S11	90'	0'	90'	TLC-LED-1150	30	30	0
6	S12-S14 S7-S9	80'	0'	80'	TLC-LED-1150	10	10	0
8	TOTALS					120	120	0

Cal State LA Soccer Phase 2

Los Angeles,CA

GRID SUMMARY

Name:	**South Field 2**
Size:	345' x 223'
Spacing:	30.0' x 30.0'
Height:	3.0' above grade

ILLUMINATION SUMMARY

MAINTAINED HORIZONTAL FOOTCANDLES

	Entire Grid
Guaranteed Average:	**75**
Scan Average:	75.0
Maximum:	99
Minimum:	52
Avg / Min:	1.44
Guaranteed Max / Min:	**2**
Max / Min:	1.91
UG (adjacent pts):	1.60
CU:	0.45
No. of Points:	96

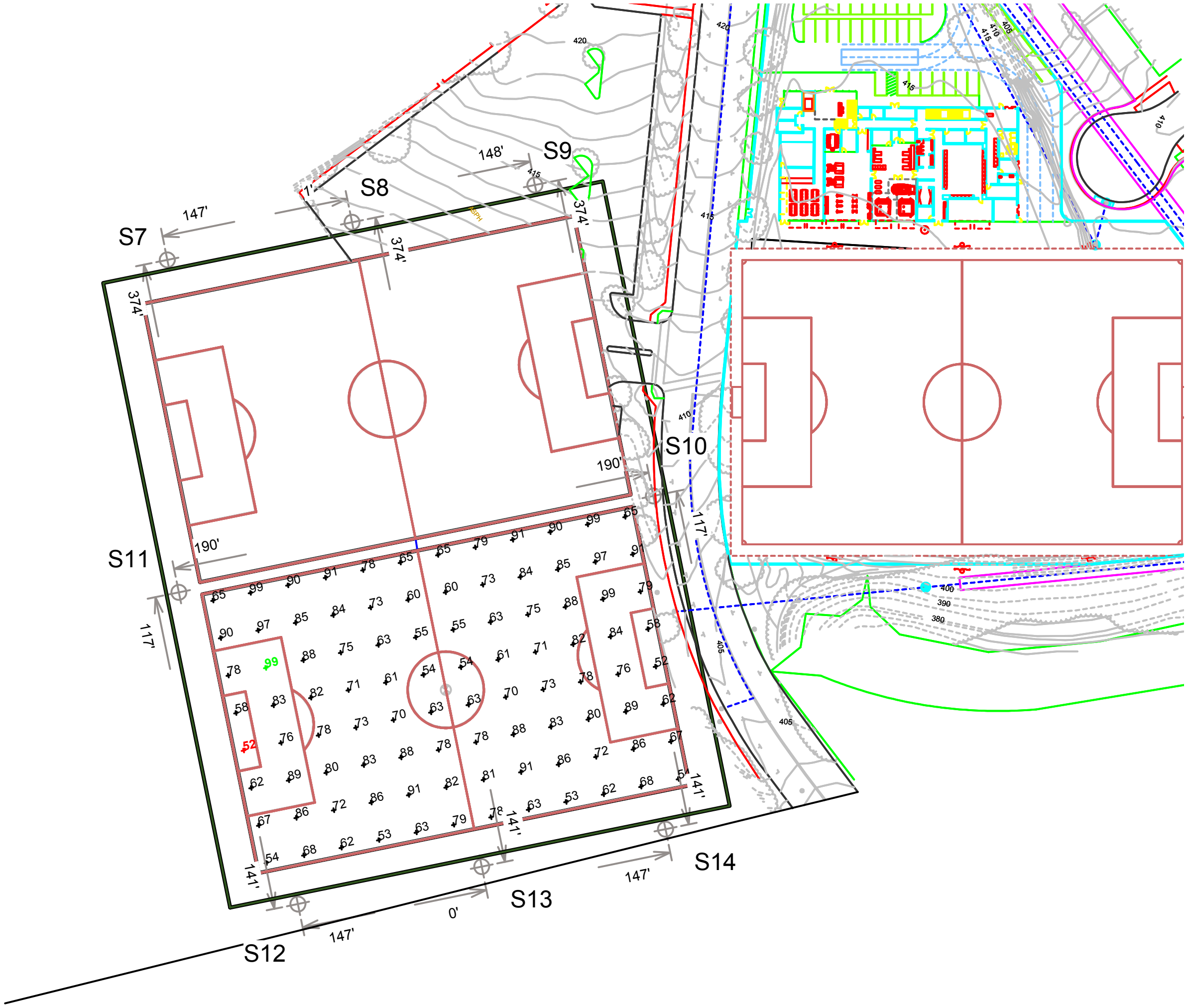
LUMINAIRE INFORMATION

Color / CRI:	5700K - 75 CRI
Luminaire Output:	121,000 lumens
No. of Luminaires:	**120**
Total Load:	138.0 kW

Lumen Maintenance

Luminaire Type	L90 hrs	L80 hrs	L70 hrs
TLC-LED-1150	>51,000	>51,000	>51,000

Reported per TM-21-11. See luminaire datasheet for details.



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SCALE IN FEET 1 : 150

0' 150' 300'

Pole location(s) ⌖ dimensions are relative to 0,0 reference point(s) ⊗

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ENGINEERED DESIGN By: Logan Conrad • File #184289-75FC • 21-Feb-17

EQUIPMENT LIST FOR AREAS SHOWN

Pole				Luminaires				
QTY	LOCATION	SIZE	GRADE ELEVATION	MOUNTING HEIGHT	LUMINAIRE TYPE	QTY / POLE	THIS GRID	OTHER GRIDS
2	S10-S11	90'	-.1'	89.9'	TLC-LED-1150	30	30	0
6	S12-S14 S7-S9	80'	-.1'	79.9'	TLC-LED-1150	10	10	0
8	TOTALS					120	120	0

Cal State LA Soccer Phase 2

Los Angeles,CA

GRID SUMMARY

Name:	**East Property Spill**
Spacing:	30.0'
Height:	3.0' above grade

ILLUMINATION SUMMARY

MAINTAINED HORIZONTAL FOOTCANDLES

	Entire Grid
Scan Average:	**1.679**
Maximum:	9.72
Minimum:	0.00
No. of Points:	23

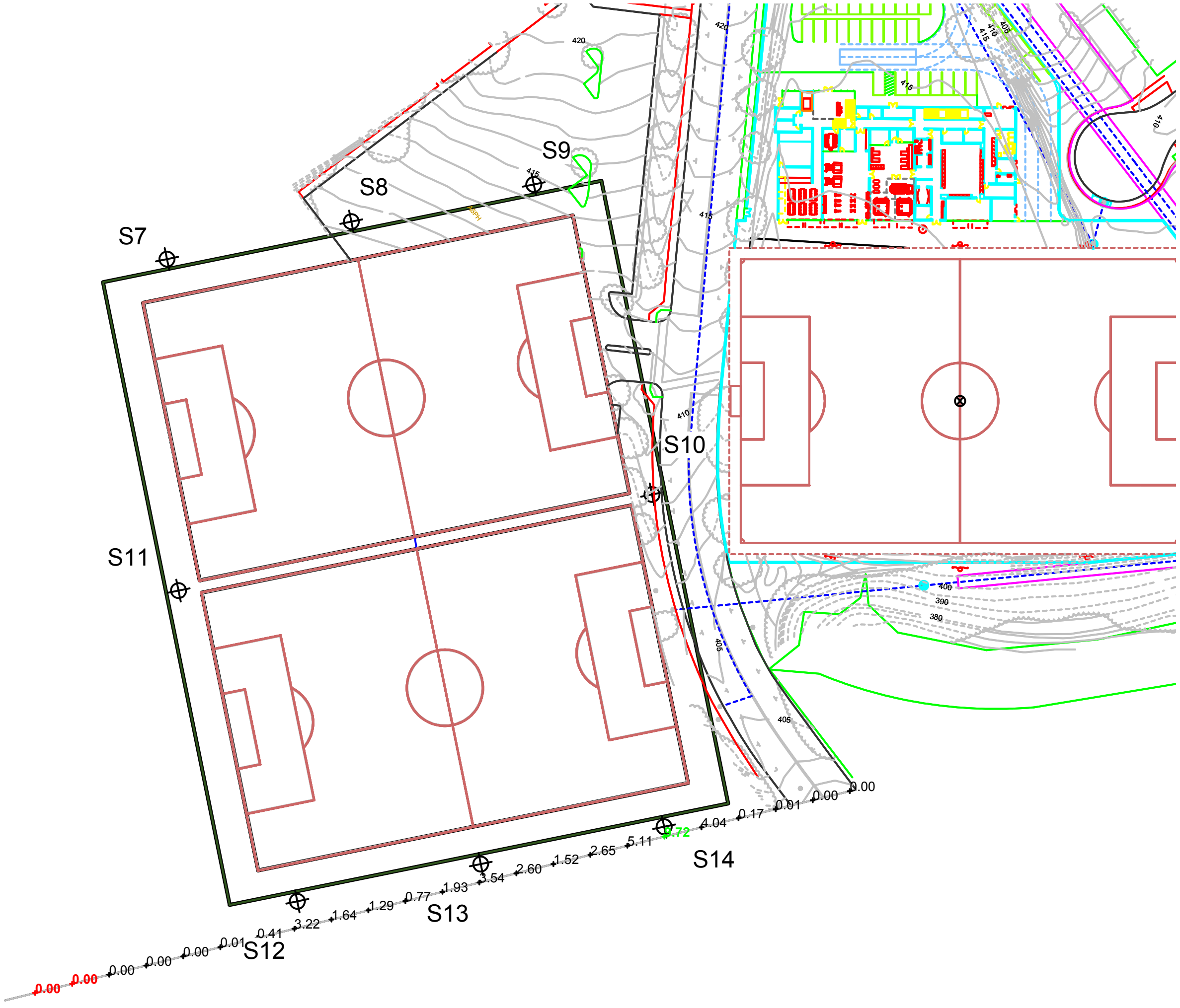
LUMINAIRE INFORMATION

Color / CRI:	5700K - 75 CRI
Luminaire Output:	121,000 lumens
No. of Luminaires:	**120**
Total Load:	138.0 kW

Lumen Maintenance

Luminaire Type	L90 hrs	L80 hrs	L70 hrs
TLC-LED-1150	>51,000	>51,000	>51,000

Reported per TM-21-11. See luminaire datasheet for details.



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SCALE IN FEET 1 : 150

0' 150' 300'

Pole location(s) ⌖ dimensions are relative to 0,0 reference point(s) ⊗

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EQUIPMENT LIST FOR AREAS SHOWN

Pole				Luminaires				
QTY	LOCATION	SIZE	GRADE ELEVATION	MOUNTING HEIGHT	LUMINAIRE TYPE	QTY / POLE	THIS GRID	OTHER GRIDS
2	S10-S11	90'	-.1'	89.9'	TLC-LED-1150	30	30	0
6	S12-S14 S7-S9	80'	-.1'	79.9'	TLC-LED-1150	10	10	0
8	TOTALS					120	120	0

Cal State LA Soccer Phase 2

Los Angeles,CA

GRID SUMMARY

Name:	**East Property Spill**
Spacing:	30.0'
Height:	3.0' above grade

ILLUMINATION SUMMARY

MAINTAINED MAX VERTICAL FOOTCANDLES

	Entire Grid
Scan Average:	1.785
Maximum:	9.80
Minimum:	0.00
No. of Points:	23

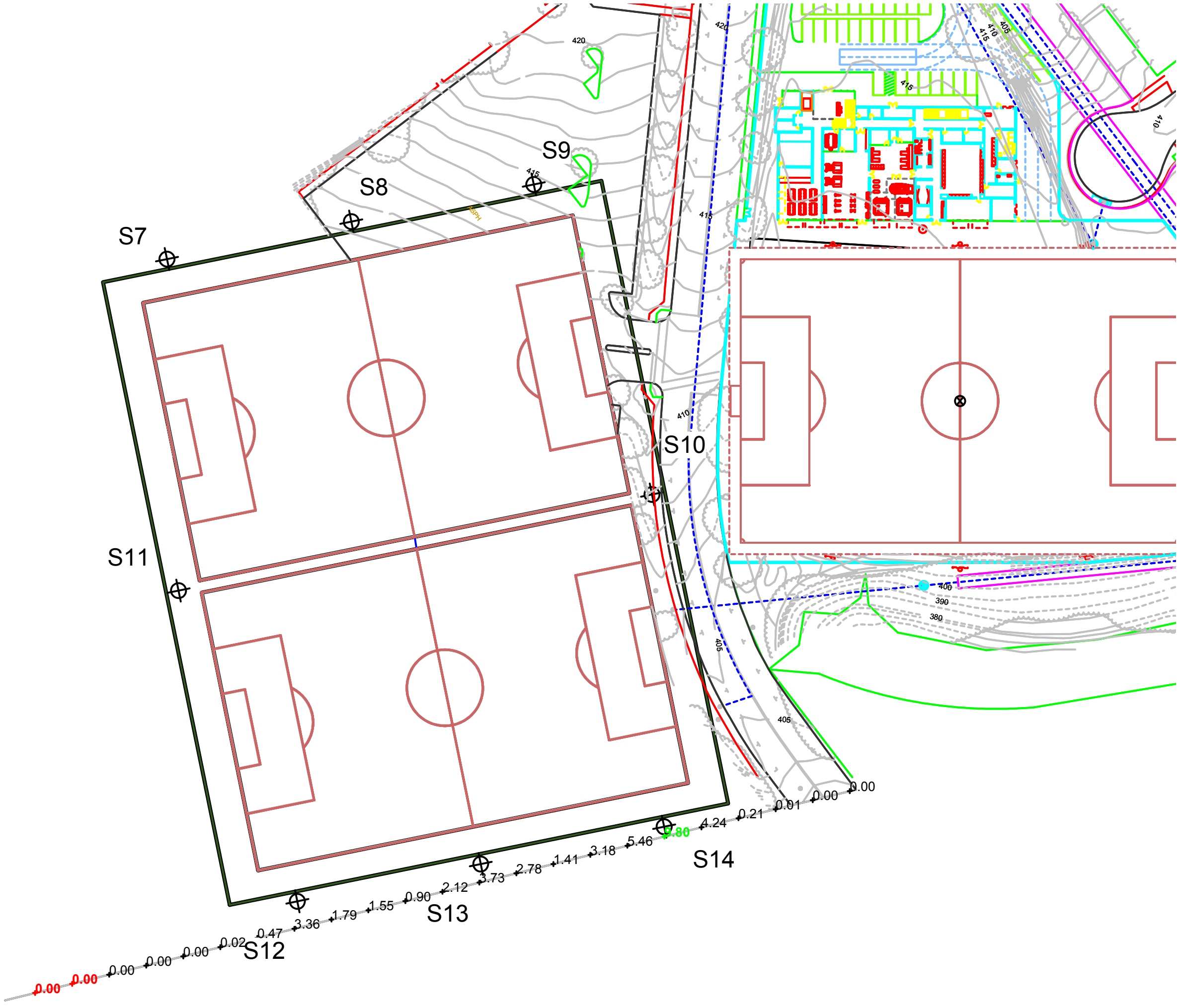
LUMINAIRE INFORMATION

Color / CRI:	5700K - 75 CRI
Luminaire Output:	121,000 lumens
No. of Luminaires:	**120**
Total Load:	138.0 kW

Lumen Maintenance

Luminaire Type	L90 hrs	L80 hrs	L70 hrs
TLC-LED-1150	>51,000	>51,000	>51,000

Reported per TM-21-11. See luminaire datasheet for details.



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SCALE IN FEET 1 : 150

0' 150' 300'

Pole location(s) ⌖ dimensions are relative to 0,0 reference point(s) ⊗

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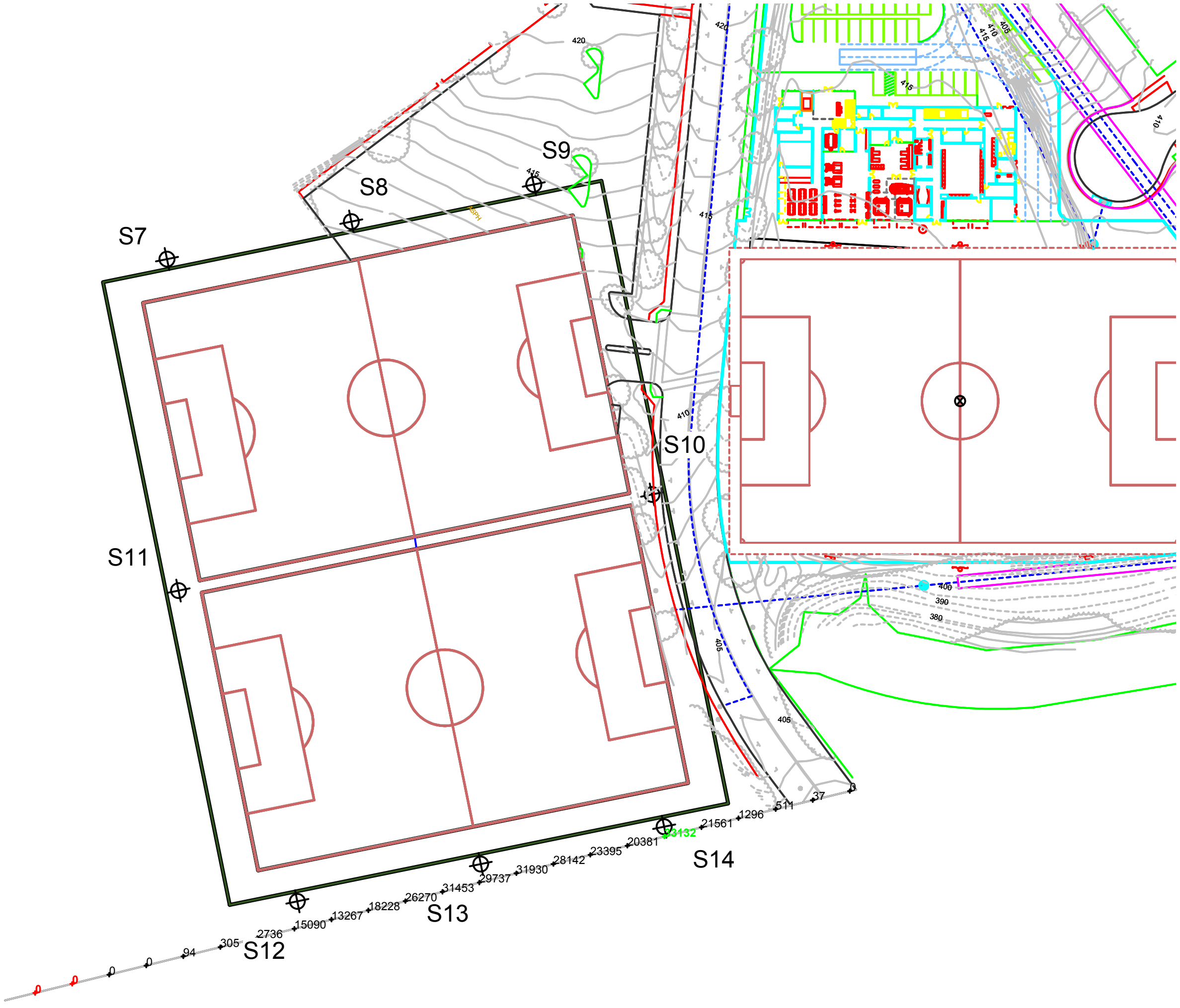
EQUIPMENT LIST FOR AREAS SHOWN

Pole				Luminaires				
QTY	LOCATION	SIZE	GRADE ELEVATION	MOUNTING HEIGHT	LUMINAIRE TYPE	QTY / POLE	THIS GRID	OTHER GRIDS
2	S10-S11	90'	-.1'	89.9'	TLC-LED-1150	30	30	0
6	S12-S14 S7-S9	80'	-.1'	79.9'	TLC-LED-1150	10	10	0
8	TOTALS					120	120	0



Cal State LA Soccer Phase 2

Los Angeles,CA

GRID SUMMARY

Name:	East Property Spill
Spacing:	30.0'
Height:	3.0' above grade

ILLUMINATION SUMMARY

MAINTAINED CANDELA (PER FIXTURE)

	Entire Grid
Scan Average:	12937.753
Maximum:	33132.32
Minimum:	0.00
No. of Points:	23

LUMINAIRE INFORMATION

Color / CRI:	5700K - 75 CRI
Luminaire Output:	121,000 lumens
No. of Luminaires:	**120**
Total Load:	138.0 kW

Lumen Maintenance

Luminaire Type	L90 hrs	L80 hrs	L70 hrs
TLC-LED-1150	>51,000	>51,000	>51,000

Reported per TM-21-11. See luminaire datasheet for details.

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Installation Requirements: Results assume ± 3% nominal voltage at line side of the driver and structures located within 3 feet (1m) of design locations.

SCALE IN FEET 1 : 150

0' 150' 300'

Pole location(s) ⌖ dimensions are relative to 0,0 reference point(s) ⊗

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Cal State LA Soccer Phase 2

Los Angeles,CA

EQUIPMENT LAYOUT

INCLUDES:

· MUGA-1
· South Field 1
· South Field 2

Electrical System Requirements: Refer to Amperage Draw Chart and/or the **"Musco Control System Summary"** for electrical sizing.

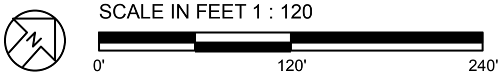
Installation Requirements: Results assume ± 3% nominal voltage at line side of the driver and structures located within 3 feet (1m) of design locations.

EQUIPMENT LIST FOR AREAS SHOWN

Pole				Luminaires		
QTY	LOCATION	SIZE	GRADE ELEVATION	MOUNTING HEIGHT	LUMINAIRE TYPE	QTY / POLE
2	S10-S11	90'	0'	90'	TLC-LED-1150	30
6	S12-S14 S7-S9	80'	0'	80'	TLC-LED-1150	10
8	TOTALS					120

SINGLE LUMINAIRE AMPERAGE DRAW CHART

Ballast Specifications (.90 min power factor)	Line Amperage Per Luminaire (max draw)						
Single Phase Voltage	208 (60)	220 (60)	240 (60)	277 (60)	347 (60)	380 (60)	480 (60)
TLC-LED-1150	7.0	6.6	6.1	5.2	4.2	3.8	3.0



Pole location(s) ⊕ dimensions are relative to 0,0 reference point(s) ⊗

We Make It Happen.

ENGINEERED DESIGN By: Logan Conrad • File #184289-75FC • 21-Feb-17

Cal State LA Soccer Phase 2

Los Angeles,CA

GLARE IMPACT

Summary

Map indicates the maximum candela an observer would see when facing the brightest light source from any direction.

A well-designed lighting system controls light to provide maximum useful on-field illumination with minimal destructive off-site glare.

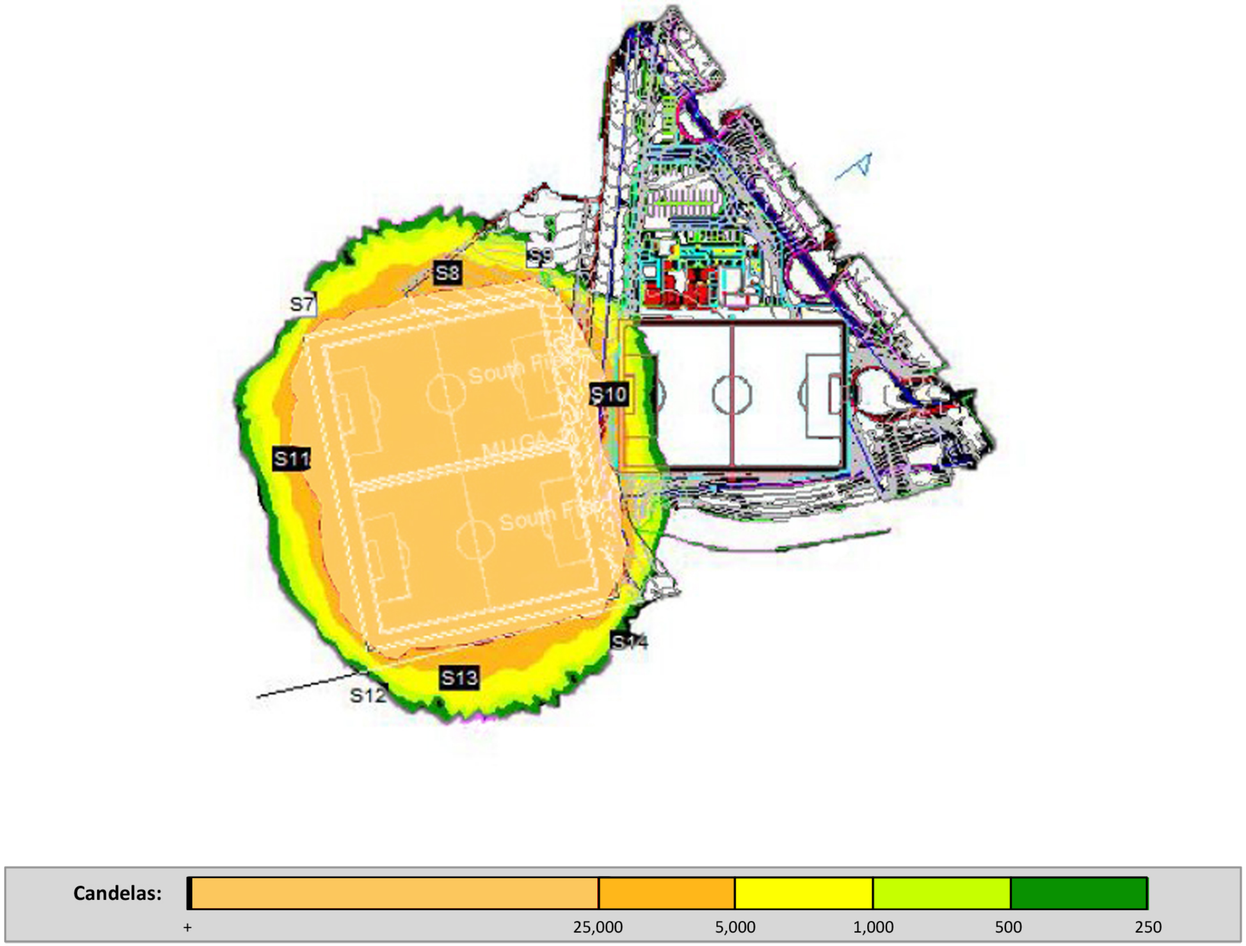
GLARE

Candela Levels

150,000 or more candela
Should only occur on or very near the lit area where the light source is in direct view. Care must be taken to minimize high glare zones.

25,000 to 75,000 candela
Equivalent to high beam headlights of a car.

500 or less candela
Equivalent to 100W incandescent light bulb.



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Appendix C

Traffic Study

DRAFT

TRAFFIC IMPACT STUDY FOR THE STUDENT HOUSING PROJECT

CALIFORNIA STATE UNIVERSITY, LOS ANGELES

DECEMBER 2016

PREPARED FOR

PARSONS BRINCKERHOFF, INC.

PREPARED BY

Gibson
transportation consulting, inc.

DRAFT

TRAFFIC IMPACT STUDY
FOR THE
STUDENT HOUSING PROJECT

CALIFORNIA STATE UNIVERSITY, LOS ANGELES

December 2016

Prepared for:

PARSONS BRINCKERHOFF, INC.

Prepared by:

GIBSON TRANSPORTATION CONSULTING, INC.
523 W. 6th Street, Suite 1234
Los Angeles, California 90014
(213) 683-0088

Ref: J1478

Table of Contents

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NO.

Chapter 1

Introduction

This traffic impact study has been prepared for the Student Housing Project (Project) located at California State University, Los Angeles (CSULA) located in Los Angeles, California. The methodology and assumptions used in this analysis were established in conjunction with *California State University Transportation Impact Study Manual* (Fehr & Peers, November 2012) (the CSU guidelines) as well as *Traffic Study Policies and Procedures* (Los Angeles Department of Transportation, August 2014) and City of Alhambra traffic guidelines where applicable.

PROJECT DESCRIPTION

The Project proposes to construct a new student housing complex that will provide 1,500 beds, dining facilities and support services on the northeastern portion of the CSULA campus along Paseo Rancho Castilla, adjacent to I-710. This would transition 1,500 existing commuter students to dormitory (dorm) students. The dormitory students would not be allowed to have cars on campus. In addition, the Project will provide two intramural soccer fields for internal campus use and a soccer training facility for the use by a major soccer league. The training facility would include a field for training and practice and a building to accommodate the coaching and training staffs as well as treatment and fitness facilities. The North Field is anticipated to be used as a practice field by a major league soccer team, and will also be used as practice field by community youth soccer organizations and the University students when not in use by the soccer team. The Project is anticipated to be completed by year 2021.

Since the Project will be constructed on an existing surface parking lot, a new parking garage will be built to replace the lost spaces. The multi-leveled parking garage will accommodate approximately 1,649 parking spaces, including 100 additional spaces, and take its primary

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access from the existing driveway on Paseo Rancho Castilla & Lansdowne Avenue. Additional access will come from Circle Drive and through Parking Lot 5.

Figure 1 illustrates the Project site plan and location.

ORGANIZATION OF REPORT

This report is divided into 12 chapters, including this introduction. Chapter 2 describes the methodology used. Chapter 3 describes the existing circulation system, traffic volumes, and traffic conditions in the Study Area. Chapter 4 forecasts and analyzes future base operating conditions without Project traffic. Chapter 5 describes the procedure used to generate Project traffic volumes and the traffic distribution patterns throughout the Study Area. Chapter 6 presents the intersection operating conditions associated with operation of the Project added to Existing Conditions, and Chapter 7 presents the intersection operating conditions associated with operation of the Project added to Future without Project Conditions (Year 2021). Chapter 8 assesses the potentially significant traffic impacts associated with the Project compared to the existing and future conditions. Chapter 9 presents the signal warrant analysis for any potential signalization of an unsignalized intersection. Chapter 10 analyzes traffic impacts in accordance with the requirements of the Congestion Management Program. Chapter 11 provides a review of the Project site access and circulation plan. Chapter 12 summarizes the analyses and study conclusions. Analysis worksheets, traffic counts, and related documents are provided in the appendices.

Project Conceptual Plan

Chapter 2

Traffic Impact Analysis Methodology

This chapter describes the traffic scenarios analyzed, the methodologies used for assessing intersection operating conditions, and the significant traffic impact criteria used in the analysis.

STUDY SCOPE AND METHODOLOGY

This traffic study has been prepared in accordance with the CSU guidelines, adopted policies, procedures, and standards, and provides a comprehensive analysis of the potential traffic impacts associated with the Project. Per the CSU guidelines, the thresholds for impact criteria and mitigation requirements can be deferred to the local City guidelines. In addition, the local City guidelines were used to establish growth rates, peak hour windows, and analysis software.

As described in more detail below, the study analyzed the potential Project-generated traffic impacts on the street system surrounding the Project site when compared to Existing Conditions (Year 2016) and Future Conditions (Year 2021). Intersection traffic impacts for the Project were evaluated for typical weekday morning and afternoon peak periods. The analysis of future year traffic forecasts was conducted assuming full occupation of the Project and is based on projected traffic conditions in year 2021 both with and without development of the Project. Consistent with *Traffic Study Policies and Procedures*, the following traffic conditions were developed and analyzed as part of this study:

- Existing Conditions (Year 2016) – The analysis of existing traffic conditions provides a basis for the assessment of existing and future traffic conditions with the addition of Project traffic. The Existing Conditions analysis includes a description of key area streets and highways, traffic volumes and current operating conditions, and transit service in the Project Site vicinity. New intersection turning movement counts were collected in May 2016 during typical weekday morning (7:00 AM to 10:00 AM) and afternoon (3:00 PM to 6:00 PM) peak periods while school was in session. Fieldwork (lane configurations and signal phasing) for the analyzed intersections was also collected and is provided in Appendix A. The traffic count worksheets are provided in Appendix B and level of service (LOS) worksheets are provided in Appendix C.

- Existing with Project Conditions (Year 2016) – This scenario analyzes the potential intersection operating conditions that could be expected if the Project were built under existing conditions. In this scenario, the Project-generated traffic is added to the Existing Conditions.

- Future without Project Conditions (Year 2021) – This scenario analyzes the potential intersection operating conditions that could be expected as a result of regional growth and related project traffic in the Study Area by year 2021. This analysis provides the baseline conditions by which the Project impacts are evaluated in the future at full buildout.

- Future with Project Conditions (Year 2021) – This scenario analyzes the potential intersection operating conditions that could be expected if the Project were built in the projected buildout year. In this scenario, the Project-generated traffic is added to Future without Project Conditions.

Signalized Intersection Capacity Analyses Methodology

City of Los Angeles. Intersection capacity has been analyzed using the “Critical Movement Analysis (CMA) – Planning” (*Transportation Research Circular No. 212, Interim Materials on Highway Capacity*, Transportation Research Board, 1980) methodology required by the City. The CMA methodology was implemented using Los Angeles Department of Transportation’s (LADOT) Calcadb Lite spreadsheet application to analyze intersection operating conditions. The methodology calculates the volume-to-capacity (V/C) ratio, which is used to determine the intersection LOS according to the LOS definitions provided in Table 1.

The Automated Traffic Surveillance and Control (ATSAC) system represents an advanced system in computer control of traffic signals. It was first put into operation in June 1984 in the Coliseum area of the City to anticipate the expected increase in traffic due to the Summer Olympic Games, and has since been expanded to other parts of the City. The advantages of ATSAC-controlled traffic signals are substantial, including real-time adjustment of signal timing plans to reflect changing traffic conditions, identification of unusual traffic conditions caused by incidents, the ability to implement special purpose short-term signal timing changes in response to incidents, and the ability to identify signal equipment malfunctions quickly. LADOT estimates that implementation of this system improves intersection capacity by an average of 7%.

In addition to ATSAC, the Adaptive Traffic Control System (ATCS) has been implemented in the City. ATCS is a computer-based traffic signal control program that provides fully responsive traffic signal control based on real-time traffic conditions. It automatically adjusts and optimizes traffic signal timing in response to current traffic demands on the entire signal network such that the number of stops and the amount of delay Is minimized along with improved traffic signal coordination throughout the network. LADOT estimates that implementation of this system improves intersection capacity by an additional 3% over those operating under the ATSAC system alone.

Each of the signalized study intersections within the jurisdiction of the City is equipped with both ATSAC and ATCS. In accordance with standard LADOT procedures, a capacity increase of 10% (0.10 V/C adjustment) was applied to each intersection to reflect the benefits of ATSAC and ATCS control. The capacity increases are applied within the Calcadb Lite software and, therefore, are inherent in the analysis results.

The significance of the potential impacts of Project generated traffic at the study intersections within the jurisdiction of the City was determined using criteria identified in *Traffic Study Policies and Procedures*. LADOT guidelines indicate that a project is considered to have a significant traffic impact on a signalized intersection if the increase in the V/C ratio attributable to the project exceeds a specific threshold depending on the final intersection LOS. LADOT has developed a sliding scale methodology in which the minimum allowable increase in the V/C ratio attributable to a project decreases as the V/C ratio of the intersection increases:

Intersection Conditions with Project Traffic		**Significant Impact Threshold for Project-related Increase in V/C Ratio**
LOS	**V/C**	
C	0.701 – 0.800	Equal to or greater than 0.04
D	0.801 – 0.900	Equal to or greater than 0.02
E, F	> 0.900	Equal to or greater than 0.01

Source: City of Los Angeles

The relative impact of the added traffic volumes to be generated by the Project was evaluated based on analysis of existing and future operating conditions at the study intersections, with and without the Project.

City of Alhambra. In accordance with the City of Alhambra traffic study guidelines, the LOS analyses were conducted using the Intersection Capacity Utilization (ICU) methodology from *Highway Capacity Manual, Special Report 209* (Transportation Research Board, 2000) to obtain the corresponding ICU value for signalized intersections within the jurisdiction of the City of Alhambra. The ICU methodology estimates the V/C relationship for an intersection based on the individual V/C ratios for key conflicting traffic movements. It is important to note that the ICU methodology assumes uniform traffic distribution per intersection approach lane and optimal signal timing. The ICU value is the sum of the critical V/C ratios at an intersection. The ICU calculations use an overall intersection capacity of 1,600 vehicles per hour per lane (vphpl) and a dual turn lane capacity of 2,880 vphpl. In addition, a factor of 0.10 was included to account for the yellow interval clearance. The City of Alhambra also utilizes a sliding scale methodology to determine significant transportation impacts based on the following impact threshold criteria:

Intersection Conditions without Project Traffic		**Significant Impact Threshold for Project-related Increase in V/C Ratio**
LOS	**V/C**	
C	0.71 – 0.80	Equal to or greater than 0.04
D	0.81 – 0.90	Equal to or greater than 0.02
E, F	> 0.91	Equal to or greater than 0.01

Source: City of Alhambra

Unsignalized Intersection Analysis Methodology

Based on *Traffic Study Policies and Procedures*, the unsignalized intersections were not analyzed for potential significant impacts. Rather, the unsignalized intersections were evaluated to determine the need for the installation of a traffic signal on the basis of LOS and a signal warrant analysis. The *2010 Highway Capacity Manual* (Transportation Research Board, 2010) (HCM 2010) methodology was used to determine the worst-case intersection delay (the worst-case delay, in seconds, of a vehicle passing through the intersection for any approach), which is used to determine the intersection LOS according to the LOS definitions provided in Table 1. The analysis worksheets for each scenario are provided in Appendix C. If an unsignalized intersection is projected to operate at LOS E or F under the Future with Project Conditions, then the intersection was further evaluated for the potential installation of a new traffic signal through a traffic signal warrant analysis. Signal warrant analysis worksheets are provided in Appendix D.

It should be noted that the determination that an unsignalized intersection meets the criteria of a traffic signal warrant does not in itself require the installation of a signal. Rather, the decision on whether a traffic signal should be installed is made by the governing jurisdictions taking into consideration other factors such as distance to adjacent signalized intersections and interruption to traffic flow along the major street. Further, it is not generally the sole responsibility of a single development project to signalize an intersection at which it only incrementally increases traffic volumes, as the conditions warranting the traffic signal often occur with or without Project traffic.

ADDITIONAL TRAFFIC ANALYSES

Congestion Management Program

An analysis was also conducted according to *2010 Los Angeles County Congestion Management Program* (Los Angeles County Metropolitan Transportation Authority [Metro], 2010) (CMP) guidelines. The CMP is a State-mandated program that serves as the monitoring and analytical basis for transportation funding decisions in the County made through the Regional Transportation Improvement Program (RTIP) and State Transportation Improvement Program (STIP) processes. The CMP requires that a Traffic Impact Analysis (TIA) be performed for (1) all CMP arterial monitoring intersections where a project would add 50 or more trips during either the morning or afternoon weekday peak hours and (2) all mainline freeway monitoring locations where a project would add 150 or more trips (in either direction) during the morning or afternoon weekday peak hours. In addition, it requires a review of potential impacts to the regional transit system.

The required CMP analyses were performed, as detailed in Chapter 9, in accordance with the TIA guidelines referenced in the CMP.

Vehicle Miles of Travel Analysis

State of California Senate Bill No. 743 (Steinberg, 2013) (SB 743) will change the methodology for evaluating transportation impacts in California Environmental Quality Act (CEQA) analyses. Instead of LOS determinations measured by intersection volume/capacity analyses, SB 743 calls for an evaluation of Vehicle Miles of Travel (VMT) per capita generated by the Project.

SB 743 is still in the development stage. Preliminary guidelines have been published and final rules and guidelines are expected in early 2017. Cities and state agencies like the California State University system will then have two years to implement the VMT analysis. While VMT analyses are not required at this time, this analysis discusses the goals and intent of SB 743 and estimates the potential levels of VMT caused by the Project.

TABLE 1
LEVEL OF SERVICE DEFINITIONS

Level of Service	V/C Ratio	Unsignalized Delay	Definition
A	0.000 - 0.600	0.0 - 10.0	EXCELLENT. No vehicle waits longer than one red light and no approach phase is fully used.
B	0.601 - 0.700	10.1 - 15.0	VERY GOOD. An occasional approach phase is fully utilized; many drivers begin to feel somewhat restricted within groups of vehicles.
C	0.701 - 0.800	15.1 - 25.0	GOOD. Occasionally drivers may have to wait through more than one red light; backups may develop behind turning vehicles.
D	0.801 - 0.900	25.1 - 35.0	FAIR. Delays may be substantial during portions of the rush hours, but enough lower volume periods occur to permit clearing of developing lines, preventing excessive backups.
E	0.901 - 1.000	35.1 - 50	POOR. Represents the most vehicles intersection approaches can accommodate; may be long lines of waiting vehicles through several signal cycles.
F	> 1.000	> 50.0	FAILURE. Backups from nearby locations or on cross streets may restrict or prevent movement of vehicles out of the intersection approaches. Tremendous delays with continuously increasing queue lengths.

Source: *Transportation Research Circular No. 212, Interim Materials on Highway Capacity* (Transportation Research Board, 1980); *2010 Highway Capacity Manual* (Transportation Reseach Board, 2010).

Chapter 3

Existing Conditions

A data collection effort was undertaken to develop a description of existing conditions in the Study Area. The Existing Conditions analysis relevant to this study includes an assessment of the existing street system, lane configurations, intersection traffic controls, signal phasing, analyses of traffic volumes and current operating conditions, and evaluation of the existing public transit service.

STUDY AREA

The Study Area was established by reviewing the existing intersection/corridor operations, Project peak hour vehicle trip generation, the anticipated distribution of Project vehicular trips, and the potential impacts of Project traffic.

A traffic analysis study area generally comprises those locations with the greatest potential to experience significant traffic impacts due to a project as defined by the lead agency. In the traffic engineering practice, a study area generally includes those intersections that are:

1. Immediately adjacent or in close proximity to the project site
2. In the vicinity of the project site that are documented to have current or projected future adverse operational issues
3. In the vicinity of the project site that are forecast to experience a relatively greater percentage of project-related vehicular turning movements (e.g., at freeway ramp intersections).

The Study Area was established based on the above criteria, as well as peak hour Project trip generation, the anticipated distribution of Project traffic, and the existing intersections/corridor operations. It includes those intersections with the greatest potential to experience significant traffic impacts due to the Project.

A total of 13 study intersections, including 10 signalized and three unsignalized, were selected for analysis. This area is considered the traffic analysis Study Area. Figure 2 illustrates the location of the Project site in relation to the surrounding street system and the 13 study intersections.

The 13 intersections selected for evaluation are:

City of Los Angeles

1. Paseo Rancho Castilla/Eastern Avenue & Eastern Avenue/State University Drive
2. Eastern Avenue & I-10 Eastbound On-Ramp
3. Eastern Avenue & I-10 Eastbound Ramps/Ramona Boulevard
4. Campus Road & Circle Drive (unsignalized)
5. Campus Road & I-10 Westbound Off-Ramp/State University Drive
6. Campus Road & Ramona Boulevard
7. Paseo Rancho Castilla & Lansdowne Avenue
8. Paseo Rancho Castilla & Circle Drive (unsignalized)
9. Mariondale Avenue & Valley Boulevard
10. Mariondale Avenue & Paseo Rancho Castilla (unsignalized)

City of Alhambra

11. I-710 Southbound On-Ramp & Valley Boulevard
12. I-710 Northbound Off-Ramp & Valley Boulevard
13. Fremont Avenue & Valley Boulevard

EXISTING STREET SYSTEM

The existing street system in the Study Area consists of a regional roadway system including freeways, primary and secondary arterials, and collector and local streets that provide regional, sub-regional, or local access and circulation within the Study Area. These transportation facilities generally provide two to six travel lanes and usually allow parking on either side of the street. Typically, the speed limits range between 25 and 35 miles per hour (mph) on the streets and between 55 and 65 mph on freeways.

Street classifications are designated in *Mobility Plan 2035, An Element of the General Plan* (Los Angeles Department of City Planning, January 2016) (the "Mobility Plan") and the former *City of Los Angeles Transportation Element of the General Plan* (Los Angeles Department of City Planning, 1999) (the "General Plan Transportation Element"). The Mobility Plan has revised street standards in an effort to provide a more enhanced balance between traffic flow and other important street functions including transit routes and stops, pedestrian environments, bicycle routes, building design and site access, etc. The available facilities in the Study Area are defined by the following in the Mobility Plan:

- Freeways are high-volume, high-speed roadways with limited access provided by interchanges that carry regional traffic through and do not provide local access to adjacent land uses.
- Arterial Streets are major streets that serve through traffic, as well as provide access to major commercial activity centers. Arterials are divided into two categories:
    - Boulevards represent the widest streets that typically provide regional access to major destinations and include two categories:
        - Boulevard I provides up to four travel lanes in each direction with a target operating speed of 40 mph
        - Boulevard II provides up to three travel lanes in each direction with a target operating speed of 35 mph
    - Avenues pass through both residential and commercial areas and include three categories:
        - Avenue I provides up to two travel lanes in each direction with a target operating speed of 35 mph
        - Avenue II provides up to two travel lanes in each direction with a target operating speed of 30 mph
        - Avenue III provides up to two travel lanes in each direction with a target operating speed of 25 mph
- Collector Streets are generally located in residential neighborhoods and provide access to and from arterial streets for local traffic and are not intended for cut-through traffic. They provide one travel lane in each direction with operating speed of 25 mph.
- Local Streets are intended to accommodate lower volumes of vehicle traffic and provide parking on both sides of the street. They provide one travel lane in each direction with a target operating speed of 15 to 20 mph. Local streets include two categories:

    - Continuous local streets connect to other streets at both ends
    - Non-continuous local streets lead to a dead-end

The Mobility Plan is currently under litigation that could potentially result in its nullification. In that scenario, the General Plan Transportation Element would once more be in effect. The General Plan Transportation Element designates the following arterial streets rather than the "Avenues" and "Boulevards" designated in the Mobility Plan:

- Arterial Streets are major streets that serve through traffic, as well as provide access to major commercial activity centers. Arterials are divided into three categories: Major Class Highway I, Major Class Highway II, and Secondary Highway.
    - Major Highway Class I has average daily traffic (ADT) of more than 50,000.
    - Major Highway Class II is typically spaced one mile apart in a grid system, with an ADT of 30,000 to 50,000.
    - Secondary Highway supplements the through-traffic characteristics of major highways and typically located one mile apart midway between major highways, with an ADT of 20,000 to 30,000.

The City of Alhambra utilizes similar roadway categories recognized by regional, state and federal transportation agencies. Similar to the Mobility Plan, there are four general categories in the roadway system: freeways, major arterial roadways, secondary arterial/collector roadways and local roadways.

Primary regional access to the Project Site is provided by I-710 and I-10. The major arterials providing regional and sub-regional access to the Project include Valley Boulevard and Eastern Avenue. The following is a brief description of the major roadways:

Freeways

- I-710 – I-710 generally runs in the north-south direction and is located along the eastern boundary of the Project Site. In the vicinity of the Study Area, I-710 provides three travel lanes in each direction. Access to and from I-710 is available via interchanges at Valley Boulevard.
- I-10 – I-10 generally runs in the east-west direction and is located less than one half-mile south of the Project Site. In the vicinity of the Study Area, I-10 provides four travel lanes

in each direction. Access to and from I-10 is available via interchanges at Campus Road, Ramona Boulevard and Eastern Avenue.

Roadways

- Valley Boulevard – Valley Boulevard is a designated Avenue I in the Mobility Plan, a designated Major Highway Class II in the General Plan Transportation Element and a designated Major Arterial in the City of Alhambra General Plan. It is a four-lane roadway that runs in the northeast-southwest direction before curving to the east-west direction. It is located north of the Project site. Parking is generally provided along both sides of the street within the Study Area.

- Paseo Rancho Castilla – Paseo Rancho Castilla is a designated Local Street in the Mobility Plan and a designated Secondary Highway in the General Plan Transportation Element. It is a two-lane roadway that runs in the northeast-southwest direction before curving to the east-west direction and is located along the northern boundary of the Project site. Parking is generally not provided along the street within the Study Area.

- Circle Drive – Circle Drive is not identified in the Mobility Plan and General Plan Transportation Element. It is a two-lane roadway that runs in the east-west and north-south direction, provides internal circulation within CSULA and is located along the southern boundary of the Project Site. Parking is generally not provided along the street within the Study Area.

- Eastern Avenue – Eastern Avenue is not identified in the Mobility Plan and General Plan Transportation Element. It is a four-lane roadway that runs in the east-west direction between Worth Street and State University Drive and runs in the north-south direction south of State University Drive. It is located west of the Project site and parking is generally provided along the north side of the street north of State University Drive and along the west side of the street south of Ramona Boulevard within the Study Area..

- Ramona Boulevard – Ramona Boulevard is not identified in the Mobility Plan and General Plan Transportation Element. It is a four-lane roadway that runs in the east-west direction and is located south of the Project site. Parking is generally not provided along the street within the Study Area.

- Campus Road – Campus Road is a designated Collector Street in the Mobility Plan and a designated Secondary Highway in the General Plan Transportation Element. It is a two to four-lane roadway that runs in the north-south direction and is located south of the Project Site. Parking is generally not provided along the street within the Study Area.

- Mariondale Avenue – Mariondale Avenue is a designated Avenue II in the Mobility Plan and designated Local Street in the General Plan Transportation Element. It is a two-lane roadway that runs in north-south direction and is located along the western boundary of the Project site. Parking is generally not provided along the street within the Study Area.

- Fremont Avenue – Fremont Avenue is a designated Major Arterial in the City of Alhambra General Plan. It is a four-lane roadway that runs in north-south direction and is located east of the Project site. Parking is generally provided along the both sides of the street south of Valley Boulevard within the Study Area.

Existing Lane Configurations

The existing lane configurations at the Study Area intersections are provided in Appendix A.

The intersection of Mariondale Avenue & Valley Boulevard operates in the field differently than the current striping might suggest. Mariondale Avenue & Valley Boulevard currently provides one left-turn lane, one shared through/left-turn lane and one channelized right-turn lane in the northbound approach. Based on current traffic observations and existing traffic volumes, the northbound approach operates as one left-turn lane and one right-turn lane with approximately 40 feet of storage length capacity for the through volumes. For the purposes of this analysis, the northbound approach was analyzed with one shared through/left-turn lane and one right-turn lane.

EXISTING TRANSIT SYSTEM

The Study Area is served by bus lines operated by Los Angeles County Metropolitan Transportation Authority (Metro), Foothill Transit and Alhambra Community Transit (ACT), as well as the El Sol Shuttle system. Figure 3 illustrates the existing transit service in the Study Area. The following provides a brief description of the bus lines providing service in the Project vicinity:

- Metro Local 70 – Route 70 is a local line that travels from El Monte to downtown Los Angeles via Garvey Avenue, with average headways of 10 to 15 minutes during the weekday morning and afternoon peak hours. It provides service to Rosemead, Alhambra and City Terrace, and travels along Ramona Boulevard in the vicinity of the Project Site.

- Metro Local 71 – Route 71 is a local line that travels from CSULA to downtown Los Angeles via Wabash Avenue and Terrace Drive, with average headways of 20 minutes during the weekday morning peak hour and 35 minutes during the afternoon peak hour. It provides service to City Terrace and travels along Ramona Boulevard and State University Drive in the vicinity of the Project Site.

- Metro Local 76 – Route 76 is a local line that travels from El Monte to downtown Los Angeles via Valley Boulevard, with average headways of 15 to 20 minutes during the weekday morning and afternoon peak hours. It provides service to San Gabriel, Alhambra and City Terrace, and travels along Valley Boulevard in the vicinity of the Project Site.

- Metro Local 256 – Route 256 is a local line that travels from Altadena to Commerce via Hill Avenue, Avenue 64 and Eastern Avenue, with average headways of 48 minutes during the weekday morning and afternoon peak hours. It provides service to Pasadena, El Sereno, City Terrace and East Los Angeles, and travels along Eastern Avenue in the vicinity of the Project Site.

- Metro Local 258 – Route 258 is a local line that travels from Altadena to Paramount via Fremont Avenue, Eastern Avenue and Lake Avenue, with average headways of 40 minutes during the weekday morning and afternoon peak hours. It provides service to Pasadena, Alhambra, East Los Angeles and Commerce, and travels along Fremont Avenue and El Monte Busway in the vicinity of the Project Site.

- Metro Local 487 – Route 487 is a local line that travels from Sierra Madre Villa Station to downtown Los Angeles and El Monte Station via San Gabriel Boulevard, with varied headways during the weekday morning and afternoon peak hours. It provides service to Altadena, Temple City and Rosemead, and travels along El Monte Busway in the vicinity of the Project Site.

- Metro Express 489 – Route 487 is an express line that travels from Sierra Madre Villa Station to downtown Los Angeles and El Monte Station via San Gabriel Boulevard, with average headways of 17 minutes in the westbound direction during the weekday morning peak hour and in the eastbound direction during the afternoon peak hour. It provides service to Altadena, Temple City and Rosemead, and travels along El Monte Busway in the vicinity of the Project Site.

- Metro Local 665 – Route 665 is a local line that travels from Glendale to Glassel Park via Verdugo Road, with average headways of 40 to 50 minutes during the weekday morning and afternoon peak hours. It provides service to City Terrace, and travels along Eastern Avenue and Ramona Boulevard in the vicinity of the Project Site.

- Metro Silver Line – The Silver Line is a bus rapid transit service that travels from the Harbor Gateway Transit Center to El Monte with average headways of five minutes during the weekday morning and afternoon peak hours. It provides service to Gardena, downtown Los Angeles, and LAC+USC Medical Center. This line travels along El Monte Busway in the vicinity of the Project Site.

- Foothill Transit 481 – Route 481 is a weekday peak hour express line that travels from El Monte to downtown Los Angeles with average headways of 15 minutes in the westbound direction during the weekday morning peak hour and in the eastbound direction during the afternoon peak hour. It provides service to CSULA, LAC+USC Medical Center and Wilshire Center/Koreatown, and travels along El Monte Busway in the vicinity of the Project Site.

- Foothill Transit 493 – Route 493 is a weekday peak hour express line that travels from Diamond Bar to Rowland Heights and downtown Los Angeles with average headways of 12 minutes in the westbound direction during the weekday morning peak hour and 14 minutes in the eastbound direction during the afternoon peak hour. It provides service to the Industry City Hall Park and Ride, the Puente Hill Mall Transit Center and LAC+USC Medical Center, and travels along El Monte Busway in the vicinity of the Project Site.

- Foothill Transit 495 – Route 495 is a weekday peak hour express line that travels from Industry to downtown Los Angeles with average headways of 20 minutes in the westbound direction during the weekday morning peak hour and in the eastbound direction during the afternoon peak hour. It provides service to the Industry City Hall Park and Ride, CSULA, and LAC+USC Medical Center, and travels along El Monte Busway in the vicinity of the Project Site.

- Foothill Transit 496 – Route 496 is a weekday peak hour express line that travels from Azusa to West Covina and downtown Los Angeles with average headways of 28 minutes in the westbound direction during the weekday morning peak hour and 26 minutes in the eastbound direction during the afternoon peak hour. It provides service to the Azusa Intermodal Transit Center, West Covina Park & Ride, CSULA, and LAC+USC Medical Center, and travels along El Monte Busway in the vicinity of the Project Site.

- Foothill Transit 497 – Route 497 is a weekday peak hour express line that travels from the Chino Park and Ride to downtown Los Angeles with average headways of 15 minutes in the westbound direction during the weekday morning peak hour and 18 minutes in the eastbound direction during the afternoon peak hour. It provides service to the Industry City Hall Park and Ride, CSULA, and LAC+USC Medical Center. This line travels along El Monte Busway in the vicinity of the Project Site.

- Foothill Transit 498 – Route 498 is a weekday peak hour express line that travels from Azusa to downtown Los Angeles with average headways of 10 minutes in the westbound direction during the weekday morning peak hour and in the eastbound direction during the afternoon peak hour. It provides service to the Citrus College Park & Ride, CSULA, and LAC+USC Medical Center. This line travels along El Monte Busway in the vicinity of the Project Site.

- Foothill Transit 499 – Route 499 is a weekday peak hour express line that travels from the San Dimas Park and Ride to downtown Los Angeles with average headways of 12 minutes in the westbound direction during the weekday morning peak hour and 17 minutes in the eastbound direction during the afternoon peak hour. It provides service to the Via Verde Park and Ride, CSULA, and LAC+USC Medical Center. This line travels along El Monte Busway in the vicinity of the Project Site.

- Foothill Transit 699 – Route 699 is a weekday peak hour express line that travels from Montclair to downtown Los Angeles with average headways of 8 minutes in the westbound direction during the weekday morning peak hour and in the eastbound direction during the afternoon peak hour. It provides service to the Fairplex Park & Ride, CSULA, and the USC Medical Center. This line travels along El Monte Busway in the vicinity of the Project Site.

- Foothill Transit Silver Streak – Silver Streak is an express line that travels from Montclair to downtown Los Angeles with average headways of 10 to 15 minutes during the weekday morning and afternoon peak hours. It provides service to the Pomona Transit Center, CSULA, and LAC+USC Medical Center. This line travels along El Monte Busway in the vicinity of the Project.

- ACT Blue – ACT Blue line is a local line that travels from the City of Alhambra Civic Center to CSULA, with average headways of 20 minutes during the weekday morning and afternoon peak hours. This line travels along Fremont Avenue and Paseo Rancho Castilla in the vicinity of the Project Site.

- El Sol Shuttle City Terrace (ESCT) – ESCT is a shuttle service that travels within City Terrace via Cesar Chavez Avenue, City Terrace Drive and Eastern Avenue, with average headways of 60 minutes during the weekday morning and afternoon peak hours. This line travels along Eastern Avenue and Ramona Boulevard in the vicinity of the Project Site.

Table 2A summarizes the transit lines operating in the Study Area for each of the service providers in the region, the type of service (peak vs. off-peak, express vs. local), and frequency of service, as described above. The average headways during the peak hour were estimated using detailed trip and ridership data from March 2015 provided by Metro.

Table 2B summarizes the total available capacity of the Metro transit system (no data was readily available for the Foothill Transit, ACT Blue, and ESCT lines) during the morning and afternoon peak hours based on the frequency of service of each line, the standing capacity of each bus or train, and the maximum peak hour load in each direction. As shown in Table 2B, the Metro bus lines serving within the Study Area currently have available capacity for approximately 1,118 additional riders during the morning peak hour and 827 additional riders during the afternoon peak hour. Additionally, Foothill Transit, ACT Blue and ESCT provide additional ridership capacity.

EXISTING BICYCLE AND PEDESTRIAN NETWORK

Existing Bicycle System

Based on the *2010 Bicycle Plan, A Component of the City of Los Angeles Transportation Element* (Los Angeles Department of City Planning, adopted March 1, 2011) (*2010 Bicycle Plan*) and *Alhambra Bicycle Master Plan* (Alta Planning + Design, February 2013), the existing bicycle system consists of a limited coverage of bicycle lanes (Class II) and bicycle routes (Class III). Bicycle lanes are a component of street design with dedicated striping, separating vehicular traffic from bicycle traffic. These facilities offer a safer environment for both cyclists and motorists. Bicycle routes are identified as bicycle-friendly streets where motorists and cyclists share the roadway and there is no dedicated striping of a bicycle lane. Bicycle routes are preferably located on collector and lower volume arterial streets. There are no bicycle lanes or routes currently provided within the Study Area.

Existing Pedestrian Facilities

The walkability of existing facilities is based on the availability of pedestrian routes necessary to accomplish daily tasks without the use of an automobile; these attributes are quantified by WalkScore.com and assigned a score out of 100 points. The walkability of the area is approximately 62 points[2]; this compares to the citywide score of 58 points.

The sidewalks that serve as routes to the Project Site provide adequate connectivity and widths for a comfortable and safe pedestrian environment. The sidewalks provide connectivity to pedestrian crossings at study intersections. The intersection of Mariondale Avenue & Paseo Rancho Castilla provides pedestrian facilities that would limit mid-block crossings to the Project Site (the intersection has marked pedestrian crossings on all approaches). The intersection also provides crosswalk striping and curb ramps.

Vision Zero

As described in *Vision Zero: Eliminating Traffic Deaths in Los Angeles by 2025* (City of Los Angeles, August 2015), Vision Zero is a traffic safety policy that promotes strategies to eliminate

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[2] WalkScore.com rates the Project site with a score of 62 of 100 possible points (scores accessed on October 17, 2016 for CSULA). Walk Score calculates the walkability of specific addresses by taking into account the ease of living in the neighborhood with a reduced reliance on automobile travel.

collisions that result in severe injury or death. Vision Zero has identified the High Injury Network, a network of streets based on the collision data from the last five years, where strategic investments will have the biggest impact in reducing death and severe injury. No streets within the Study Area have been identified as part of the High Injury Network.

EXISTING TRAFFIC VOLUMES AND LEVELS OF SERVICE

This section presents the existing peak hour turning movement traffic volumes for the study intersections, describes the methodology used to assess the traffic conditions at each intersection, and analyzes the resulting operating conditions at each intersection indicating delay and LOS.

Existing Traffic Volumes

New intersection turning movement counts were collected during the typical weekday morning and afternoon commuter peak periods at all 13 study intersections in May 2016. School was in session at the time all traffic counts were conducted.

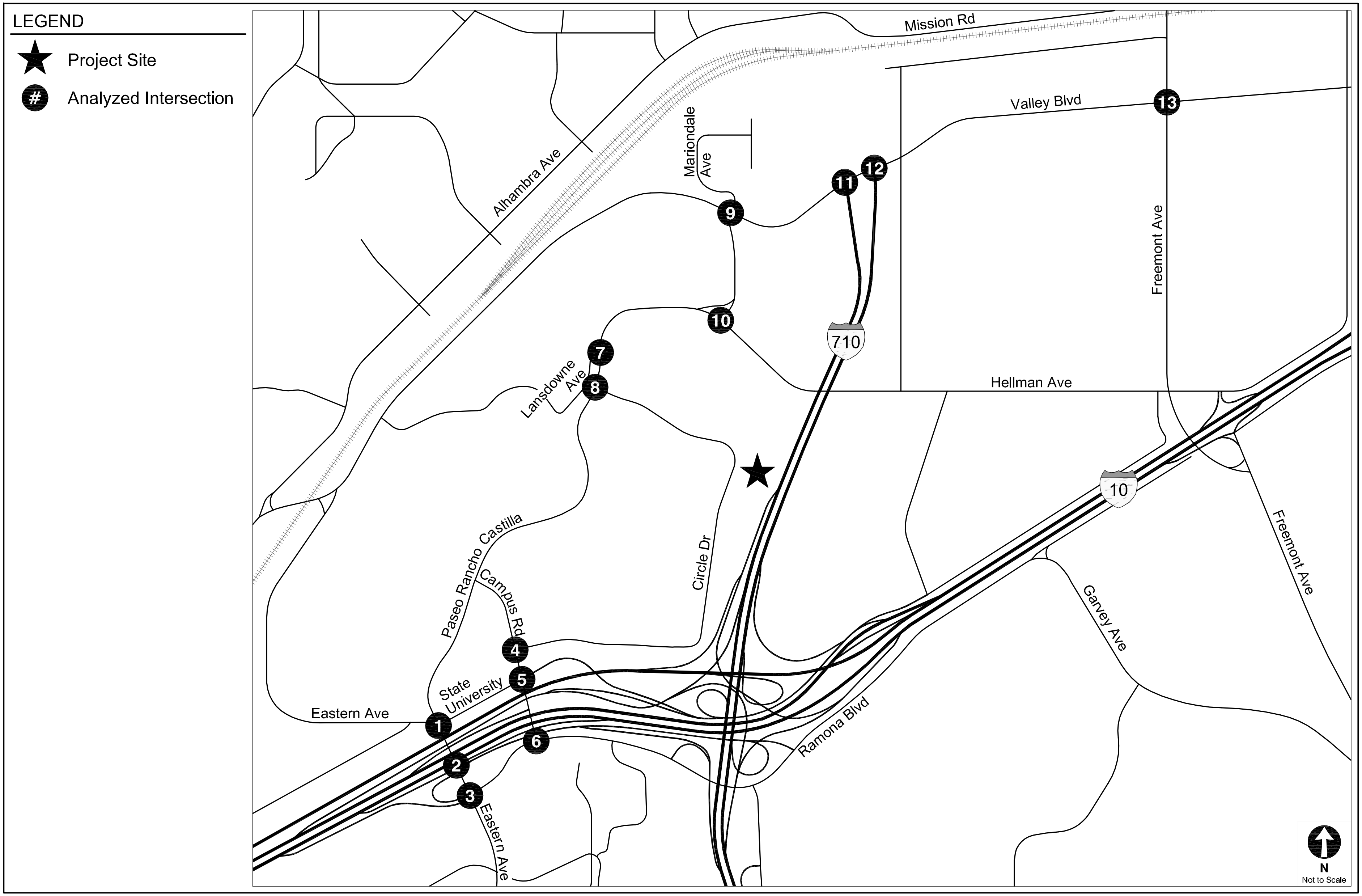
The existing intersection traffic volumes are shown in Figure 4 and the count summary worksheets are provided in Appendix B. The traffic volumes illustrated in Figure 4 were analyzed to determine the existing operating conditions at the analyzed intersections.

Existing Intersection Levels of Service

Table 3 summarizes the existing weekday morning and afternoon peak hour V/C ratio or delay and the corresponding LOS for each of the study intersections. As shown, nine of the 13 study intersections operate at LOS D or better during both the morning and afternoon peak hours under Existing Conditions. The following study intersections operate at LOS E or F during at least one of the analyzed peak hours under Existing Conditions:

- Paseo Rancho Castilla/Eastern Avenue & Eastern Avenue/State University Drive (PM)
- Campus Road & Circle Drive (AM and PM)
- I-710 Southbound On-Ramp & Valley Boulevard (AM)
- Fremont Avenue & Valley Boulevard (AM and PM)

Detailed LOS worksheets are provided in Appendix C.



STUDY AREA AND ANALYZED INTERSECTIONS

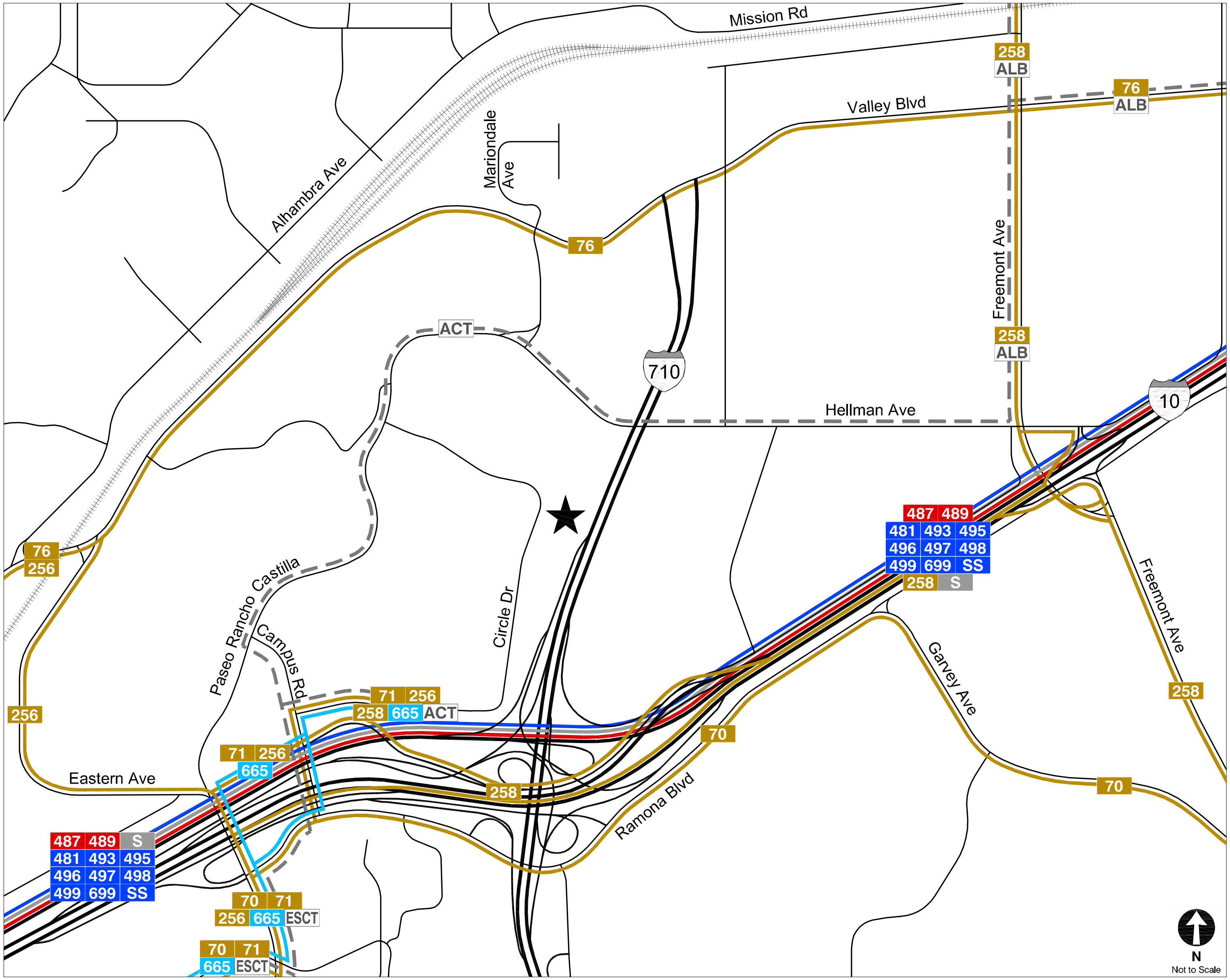
FIGURE 2

LEGEND

★ Project Site

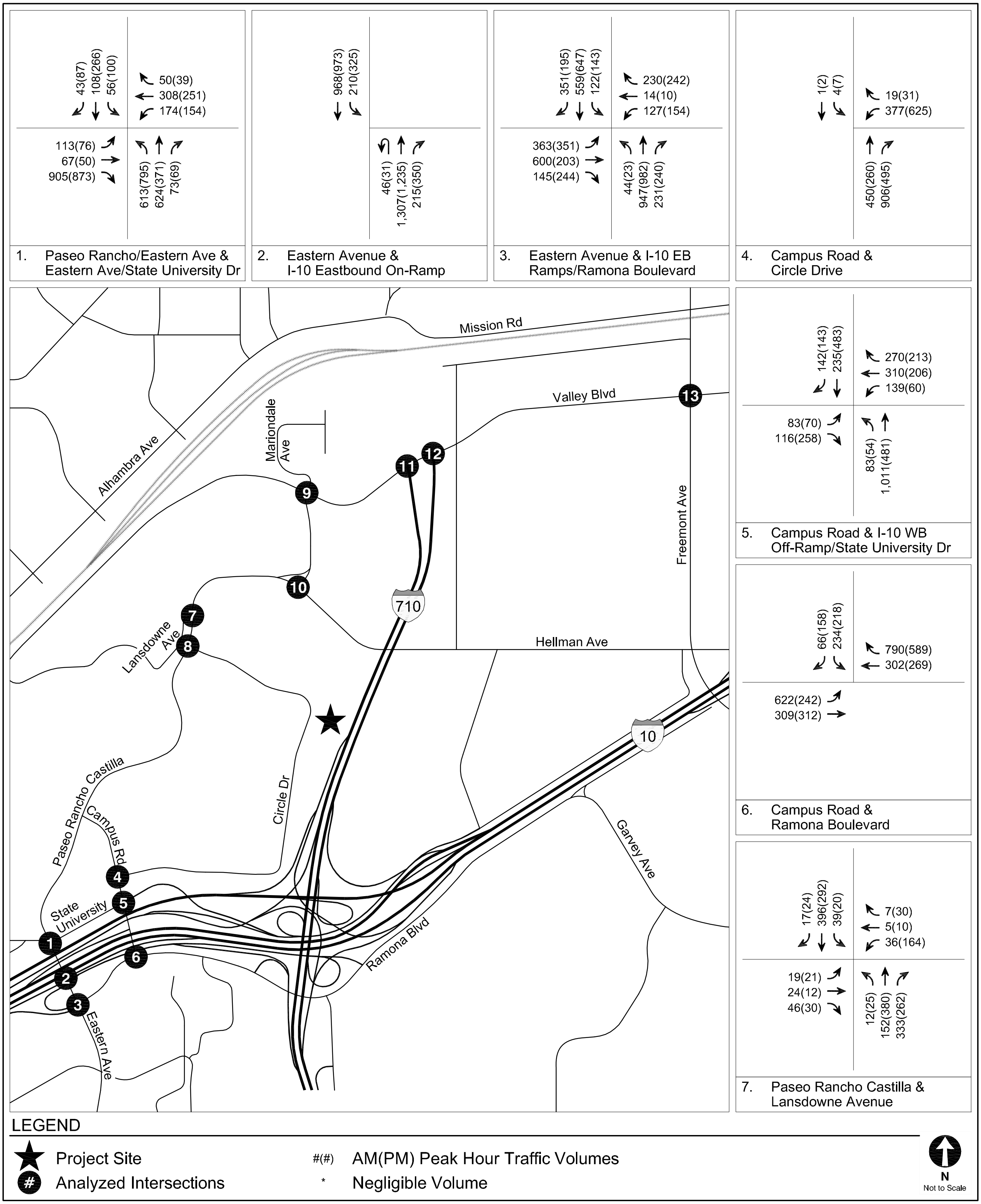
TRANSIT

- Metro Local
- Metro Express
- Metro Shuttles & Circulators
- Metro Transitway
  - S Silver Line
- Foothill Transit
- Municiple Transit Lines
  - ACT Alhambra Community Transit
  - ESCT El Sol Shuttle City Terrace



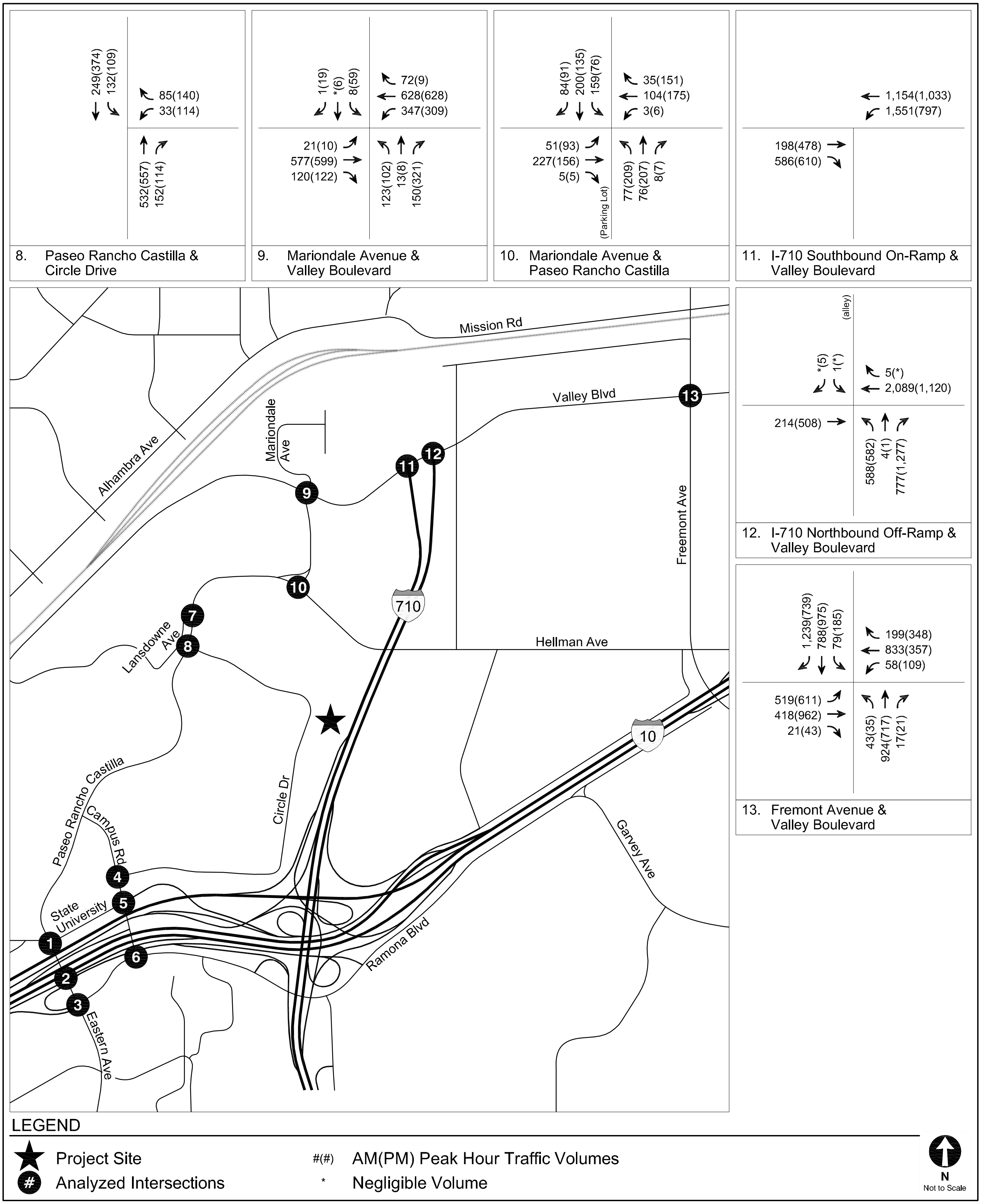
EXISTING TRANSIT SERVICE

FIGURE
3



EXISTING CONDITIONS (YEAR 2016)
PEAK HOUR TRAFFIC VOLUMES

FIGURE
4



EXISTING CONDITIONS (YEAR 2016)
PEAK HOUR TRAFFIC VOLUMES

FIGURE
4 (CONT.)

TABLE 2A
EXISTING TRANSIT SERVICE

Provider, Route, and Service Area		Service Type	Hours of Operation	Average Headway (minutes)			
				AM Peak Period		PM Peak Period	
Metro				**NB/EB**	**SB/WB**	**NB/EB**	**SB/WB**
70	El Monte - Downtown LA via Garvey Ave	Local	24 Hours	13	10	13	14
71	Cal State LA - Downtown LA via Wabash Ave & Terrace Dr	Local	5:30 A.M. - 8:15 P.M.	20	20	34	34
76	El Monte - Downtown LA via Valley Blvd	Local	24 Hours	17	15	13	17
256	Altadena - Commerce via Hill Ave, Avenue 64, & Eastern Ave	Local	5:45 A.M. - 10:00 P.M.	48	48	48	48
258	Altadena - Paramount via Fremont Ave, Eastern Ave & Lake Ave	Local	5:45 A.M. - 7:00 P.M.	40	40	40	40
487	Sierra Madre Villa Station - Downtown LA - El Monte Station via San Gabriel Blvd	Local	5:45 A.M. - 9:30 P.M.	40	13	14	34
489	Sierra Madre Villa Station - Downtown LA - El Monte Station via San Gabriel Blvd	Express	6:30 A.M. - 7:00 P.M.	N/A	17	17	N/A
665	Glendale - Glassell Park via Verdugo Rd	Local	5:45 A.M. - 8:45 P.M.	48	40	40	40
Metro Transitway				**NB/EB**	**SB/WB**	**NB/EB**	**SB/WB**
Silver	Harbor Gateway Transit Center - El Monte	BRT	3:30 A.M. - 3:00 A.M.	6	5	5	6
Foothill Transit				**NB/EB**	**SB/WB**	**NB/EB**	**SB/WB**
481	El Monte - Downtown LA	Express	5:45 A.M. - 6:30 P.M.	N/A	15	15	N/A
493	Diamond Bar - Rowland Heights - Downtown LA	Express	5:30 A.M. - 7:00 P.M.	N/A	12	14	N/A
495	Industry - Downtown LA	Express	5:45 A.M. - 7:00 P.M.	N/A	20	21	N/A
496	Azusa - West Covina - Downtown LA	Express	5:30 A.M. - 6:30 P.M.	N/A	28	26	N/A
497	Chino Park & Ride - Industry Park & Ride - Downtown LA	Express	5:45 A.M. - 7:00 P.M.	N/A	15	18	N/A
498	Azusa - West Covina - Downtown LA	Express	5:00 A.M. - 7:15 P.M.	N/A	10	11	N/A
499	San Dimas Park & Ride - Via Verde Park & Ride - Los Angeles	Express	6:00 A.M. - 7:00 P.M.	N/A	12	17	N/A
699	Montclair - Fairplex Park & Ride - Cal State LA - USC Medical Center - Downtown LA	Express	4:30 A.M. - 7:00 P.M.	N/A	8	8	N/A
SS	Silver Streak	--	24 Hours	15	8	9	16
ACT				**NB/EB**	**SB/WB**	**NB/EB**	**SB/WB**
Blue	Alhambra Community Transit Blue Line	Shuttle	7:00 A.M. - 6:00 P.M.	20	20	20	20
East Los Angeles Shuttle				**NB/EB**	**SB/WB**	**NB/EB**	**SB/WB**
ESCT	El Sol Shuttle City Terrace	Shuttle	6:00 A.M. - 9:00 P.M.	60	60	60	60

Notes:

Metro: Los Angeles County Metropolitan Transportation Authority
ACT: Alhambra Community Transit
AM Peak from 6-10 AM
PM Peak from 3-7 PM

TABLE 2B
EXISTING TRANSIT SERVICE PATRONAGE
LINES SERVING WITHIN PROJECT STUDY AREA

A.M. Peak Period

Provider	Route	Number of Runs During Peak Hour [a]	Capacity [c]	Maximum Load [d]	Load Factor - Maximum Load/Capacity	Residual Capacity per Run	Residual Capacity in Peak Hour [e]
Metro	70	11	50	24	0.48	26	286
	71	6	50	5	0.10	45	270
	76	8	50	38	0.76	12	96
	256	3	50	15	0.30	35	105
	258	3	50	16	0.32	34	102
	487	6	50	46	0.92	4	24
	489	2	50	3	0.06	47	94
	665	3	50	3	0.06	47	141
	Silver	22	50	53	1.06	0	0
Foothill Transit	481	3	50	*no data provided*			
	493	4	50	*no data provided*			
	495	2	50	*no data provided*			
	496	2	50	*no data provided*			
	497	3	50	*no data provided*			
	498	5	50	*no data provided*			
	499	4	50	*no data provided*			
	699	6	50	*no data provided*			
	SS	11	50	*no data provided*			
ACT	ALB	6	50	*no data provided*			
East LA Shuttle	ESCT	2	30	*no data provided*			
Total Bus Capacity in Peak Hour							**1,118**

P.M. Peak Period

Provider	Route	Number of Runs During Peak Hour [a]	Capacity [c]	Maximum Load [d]	Load Factor - Maximum Load/Capacity	Residual Capacity per Run	Residual Capacity in Peak Hour [e]
Metro	70	9	50	27	0.54	23	207
	71	4	50	28	0.56	22	88
	76	8	50	32	0.64	18	144
	256	3	50	19	0.38	31	93
	258	3	50	12	0.24	38	114
	487	6	50	45	0.90	5	30
	489	2	50	45	0.90	5	10
	665	3	50	24	0.48	26	78
	Silver	21	50	47	0.94	3	63
Foothill Transit	481	3	50	*no data provided*			
	493	4	50	*no data provided*			
	495	3	50	*no data provided*			
	496	2	50	*no data provided*			
	497	3	50	*no data provided*			
	498	6	50	*no data provided*			
	499	4	50	*no data provided*			
	699	8	50	*no data provided*			
	SS	11	50	*no data provided*			
ACT	ALB	6	50	*no data provided*			
East LA Shuttle	ESCT	2	30	*no data provided*			
Total Bus Capacity in Peak Hour							**827**

Notes:

Metro: Los Angeles County Metropolitan Transportation Authority.
ACT: Alhambra Community Transit

[a] Number of runs in both directions combined during peak hour.

[c] Capacity assumptions based on discussions with agencies:
Metro Regular Bus - 40 seated / 50 seated and standing.
Alhambra Community Transit - 50 seated and standing
ESCT - 30 seated and standing

[d] Maximum Load is the maximum number of people per bus in the peak direction.

[e] Maximum residual capacity in peak hours = (Maximum residual capacity per run) x (number of peak hour runs).

TABLE 3
EXISTING CONDITIONS (YEAR 2016)
INTERSECTION PEAK HOUR LEVELS OF SERVICE

No	Intersection	Peak Hour	Existing	
			V/C or Delay	LOS
1.	Paseo Rancho Castilla/Eastern Avenue & Eastern Avenue/State University Drive	A.M. P.M.	0.816 0.950	D E
2. [a]	Eastern Avenue & I-10 Eastbound On-Ramp	A.M. P.M.	0.315 0.371	A A
3. [a]	Eastern Avenue & I-10 Eastbound Ramps/Ramona Boulevard	A.M. P.M.	0.587 0.561	A A
4. [b]	Campus Road & Circle Drive	A.M. P.M.	48.3 48.3	E E
5. [a]	Campus Road & I-10 Westbound Off-Ramp/State University Drive	A.M. P.M.	0.453 0.339	A A
6.	Campus Road & Ramona Boulevard	A.M. P.M.	0.687 0.447	B A
7.	Paseo Rancho Castilla & Lansdowne Avenue	A.M. P.M.	0.242 0.319	A A
8. [b]	Paseo Rancho Castilla & Circle Drive	A.M. P.M.	14.2 14.2	B B
9.	Mariondale Avenue & Valley Boulevard	A.M. P.M.	0.447 0.486	A A
10. [b]	Mariondale Avenue & Paseo Rancho Castilla	A.M. P.M.	16.1 16.1	C C
11. [a] [c]	I-710 Southbound On-Ramp & Valley Boulevard	A.M. P.M.	1.005 0.758	F C
12. [a] [c]	I-710 Northbound Off-Ramp & Valley Boulevard	A.M. P.M.	0.745 0.674	C B
13. [c]	Fremont Avenue & Valley Boulevard	A.M. P.M.	1.027 0.989	F E

Notes:

Delay is measured in seconds (using HCM based Synchro)

[a] Intersection shares jurisdiction with Caltrans and analyzed based on local jurisdiction methodology.

For analysis based on Caltrans methodology, see appendix E for Existing and Future (Year 2035) conditions.

[b] Intersection is unsignalized and analyzed based on HCM 2010 methodology via Synchro.

[c] Intersection analyzed based on City of Alhambra LOS criteria (ICU methodology).

TABLE 4
RELATED PROJECTS LIST

No	Project	Address	Land Use	Size	Trip Generation						
					Daily	AM Peak Hour			PM Peak Hour		
						In	Out	Total	In	Out	Total
City of Los Angeles [a]											
1.	Mixed Commercial	5479 E Huntington Drive	Car Wash Restaurant Retail	1 other 1,916 sf 1,880 sf	1,155	28	22	50	59	39	98
2.	Charter School & Mixed Use	2520 Eastern Avenue	School Apartments Café	530 students 20 du 2,320 sf	1,363	167	155	322	62	59	121
3.	Warehouse	1925 N Marianna Avenue	Other	196,000 sf	0	110	24	134	28	83	111
4.	Single Family Homes	2730 N Onyx Drive	Single Family Homes	31 du	358	8	23	31	23	14	37
City of Alhambra [b]											
5.	117 S Raymond Avenue	117 S Raymond Avenue	Office	6,500 sf	72	9	1	10	2	8	10
6.	2300 W Commonwealth Ave, 307-309 Date Ave	2300 W Commonwealth Ave,307-309 Date Ave	Retail Restaurant	6,040 sf 14,760 sf	2,135	92	74	166	98	69	167
7.	1000 S Meridian Avenue [c]	1000 S Meridian Avenue	Retail Office	136,000 sf 79,000 sf	6,678	189	65	254	262	361	623
8.	1428 S Marengo Avenue [c]	1428 S Marengo Avenue	Townhome Nursing Facility Retail Medical Office	126 du 14,600 sf 12,490 sf 18,000 sf	1,915	50	60	110	84	92	176
9.	2400 S Fremont Avenue	2400 S Fremont Avenue	Townhome Single Family Homes	28 du 42 du	92	(6)	25	19	19	(1)	18
				Total	**13,768**	**647**	**449**	**1,096**	**637**	**724**	**1,361**

Notes

sf: square feet
du: dwelling units
[a] Related projects list provided by LADOT, October 2016.
[b] Related projects list provided by City of Alhambra, October 2016.
[c] Project is under environmental review and not yet approved.

Chapter 4

Future without Project Conditions

In accordance with CEQA requirements, the Project's TIA considers the effects of the Project in relation to other developments either proposed, approved, or under construction in the Study Area. These development proposals and the methodologies used in projecting future traffic conditions without the Project are discussed in this section. The Project is expected to be completed and occupied in the year 2021. The Future Year 2021 roadway network conditions are also discussed in this chapter in terms of anticipated supply, demand, and operations (system performance).

CEQA GUIDELINES REGARDING FUTURE TRAFFIC CONDITIONS

The forecast of Future without Project conditions was prepared in accordance with procedures outlined in Section 15130 of *Guidelines for Implementation of the California Environmental Quality Act*, *Chapter 3, Title 14, California Code of Regulations* (California Natural Resources Agency, amended July 27, 2007) (*Guidelines*). Specifically, *Guidelines* provides two options for developing the cumulative traffic volume forecast:

> *"(A) A list of past, present, and probable future projects producing related or cumulative impacts, including, if necessary, those projects outside the control of the [lead] agency, or*
>
> *"(B) A summary of projections contained in an adopted general plan or related planning document, or in a prior environmental document which has been adopted or certified, which described or evaluated regional or area wide conditions contributing to the cumulative impact. Any such planning document shall be referenced and made available to the public at a location specified by the lead agency."*

Accordingly, the traffic analysis provides a conservative estimate of Future without Project traffic volumes as it includes both ambient growth and related projects.

FUTURE WITHOUT PROJECT TRAFFIC VOLUMES

The Future without Project condition reflects traffic growth over existing conditions from two sources. The first source is the ambient growth that increases the base traffic due to regional growth and development outside the Study Area. The second source is the contribution of traffic generated by projects which are proposed, approved, or under construction in the vicinity of the Study Area (collectively, the Related Projects).

Ambient Traffic Growth

Existing traffic is expected to increase over time as a result of regional growth and development. Based on the City's guidelines, an ambient growth factor of 1.0% per year compounded annually was used to adjust the existing traffic volumes to the full Project's projected occupancy year of 2021. The total adjustment applied over the five-year period to full buildout of the Project was, therefore, 5.10%.

Related Projects

In accordance with the CEQA requirements in *Guidelines*, this study also considered the effects of the Project in relation to the Related Projects. The list of Related Projects is based on information provided by the Los Angeles Department of City Planning, LADOT, and City of Alhambra Development Services Department, as well as recent traffic studies prepared for projects in the area. The Related Projects are detailed in Table 4 and shown in Figure 5.

Though the buildout years of many of these Related Projects are uncertain and may be well beyond the buildout year of the Project, and notwithstanding that some may never be approved or developed, they were all considered as part of this traffic study and conservatively assumed to be completed by the Project buildout year of 2021. Therefore, the traffic growth due to the development of Related Projects considered in this analysis is highly conservative and, by itself, substantially overestimates the actual traffic volume growth in the Study Area that would likely occur in the next five years prior to Project buildout. With the addition of the 1% per year ambient growth factor previously discussed, the Future without Project cumulative condition is even more conservative.

The trips associated with the Related Projects are illustrated in Figure 6. The geographical distribution of these Related Projects is consistent with the traffic studies for these projects. The volumes for these Related Projects were added to the existing traffic volumes after adjustment for ambient growth through the assumed buildout year of 2021. The resulting Future without Project intersection traffic volumes, which include both the ambient growth and the Related Projects, are illustrated in Figure 7.

FUTURE IMPROVEMENTS

Future Roadway Improvements

The roadway network for the Future without Project Conditions within the Study Area could also be affected by regional improvement plans, local specific plans, and programmed improvements (i.e., mitigations for Related Projects). However, upon consultation with LADOT, it was determined that the analysis should conservatively exclude potential improvements within the Study Area because of uncertainty as to the likelihood and timing of their implementation. Therefore, the lane configurations and signal phasing at the study intersections was assumed to remain unchanged between Existing and Future Conditions. However, the potential improvements that were identified are discussed below.

Future Bicycle System

As proposed in the *2010 Bicycle Plan,* the Mobility Plan and *Alhambra Bicycle Master Plan*, the bicycle system in the Study Area will be expanded to create a more integrated network.

The three components of the bicycle network designated in the *2010 Bicycle Plan* include the Backbone, the Neighborhood Network, and the Green Network. Class II bicycle lanes will be added to high volume corridors to and from the Backbone of the network, while in-road bikeways in lower volume and collector streets will form the Neighborhood Network through the implementation of Class II bicycle routes and bicycle friendly streets. The Green Network consists of dedicated bike paths that connect the City's open spaces. *2010 Bicycle Plan* proposes dedicated bicycle lanes on Valley Boulevard. There are no proposed bicycle routes/bicycle friendly streets within the Study Area. The proposed bicycle facilities are not anticipated to be complete by the completion of the Project in Year 2021 and, therefore, were not included in the analysis.

As detailed in the Mobility Plan, within the Study Area, the Bicycle Lane Network would include bicycle lanes on Valley Boulevard. Similar to *2010 Bicycle Plan,* these improvements have not been definitively scheduled for implementation and were, therefore, not assumed in the future analysis.

Alhambra Bicycle Master Plan proposes bicycle routes along Westmont Drive south of Valley Boulevard, Norwood Place east of Westmont Drive, Hellman Avenue between I-710 and Westmont Drive and Ross Avenue east of Westmont Drive. These improvements have not been definitely scheduled for implementation and were, therefore, not assumed in the future analysis.

Future Pedestrian Network

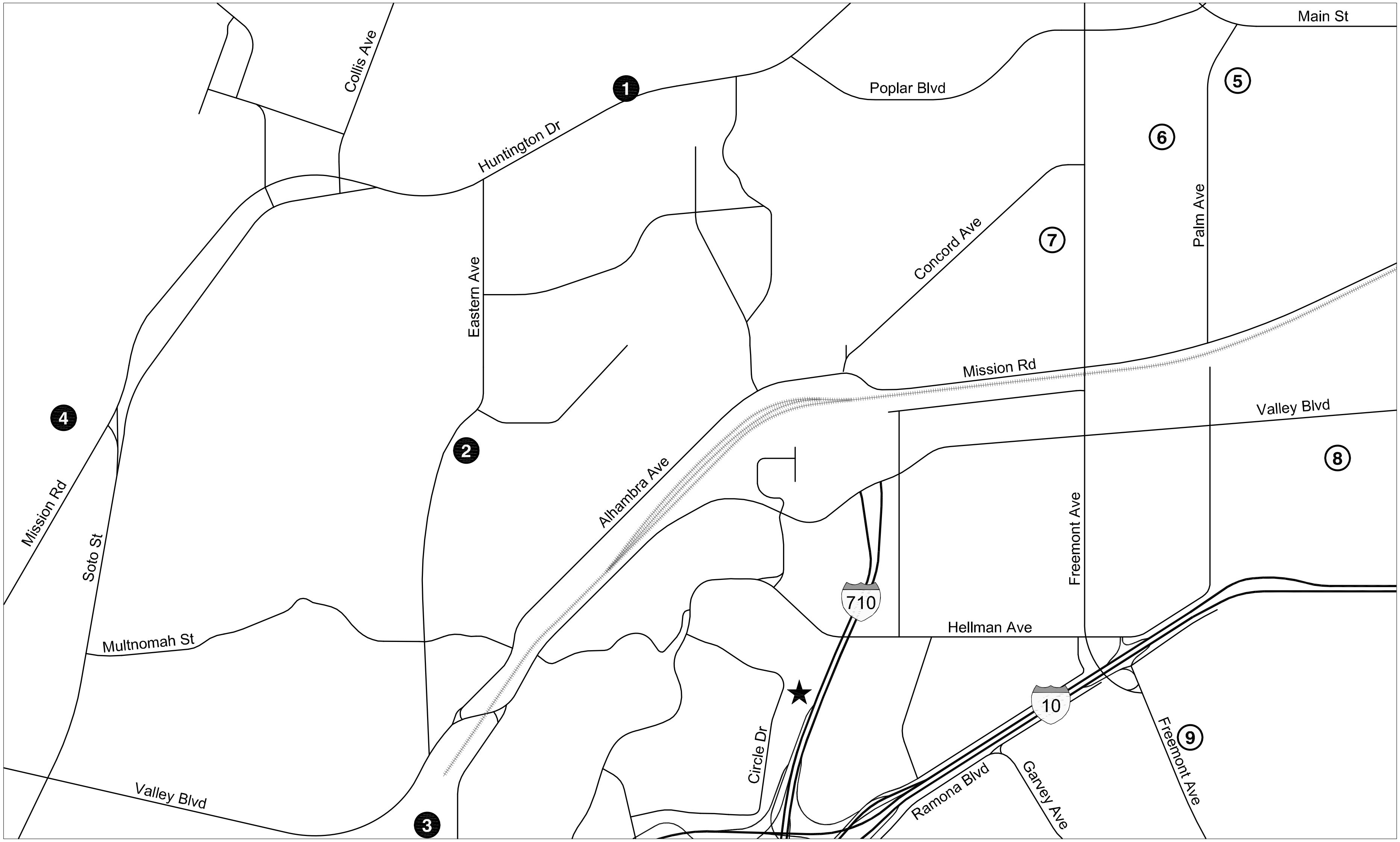
The Mobility Plan aims to promote walking to reduce the reliance on auto-travel by providing more attractive and wider sidewalks, as well as adding pedestrian signalizations, street trees, and pedestrian-oriented design features. The Pedestrian Enhanced District of the Mobility Plan has designated the Lansdowne Avenue and Paseo Rancho Castilla south of Campus Road as Pedestrian Segments, where pedestrian improvements could be prioritized to provide better connectivity to and from major destinations within communities.

FUTURE WITHOUT PROJECT LEVELS OF SERVICE

The Future without Project (Year 2021) intersection operating conditions for the weekday morning and afternoon peak hours are shown in Table 5. Similar to Existing Conditions, nine of the 13 study intersections operate at LOS D or better during both the morning and afternoon peak hours. The following study intersections are anticipated to operate at LOS E or LOS F during at least one of the analyzed peak hours:

- Paseo Rancho Castilla/Eastern Avenue & Eastern Avenue/State University Drive (AM and PM)
- Campus Road & Circle Drive (AM and PM)
- I-710 Southbound On Ramp & Valley Boulevard (AM)
- Fremont Avenue & Valley Boulevard (AM and PM)

Detailed LOS worksheets are provided in Appendix C.



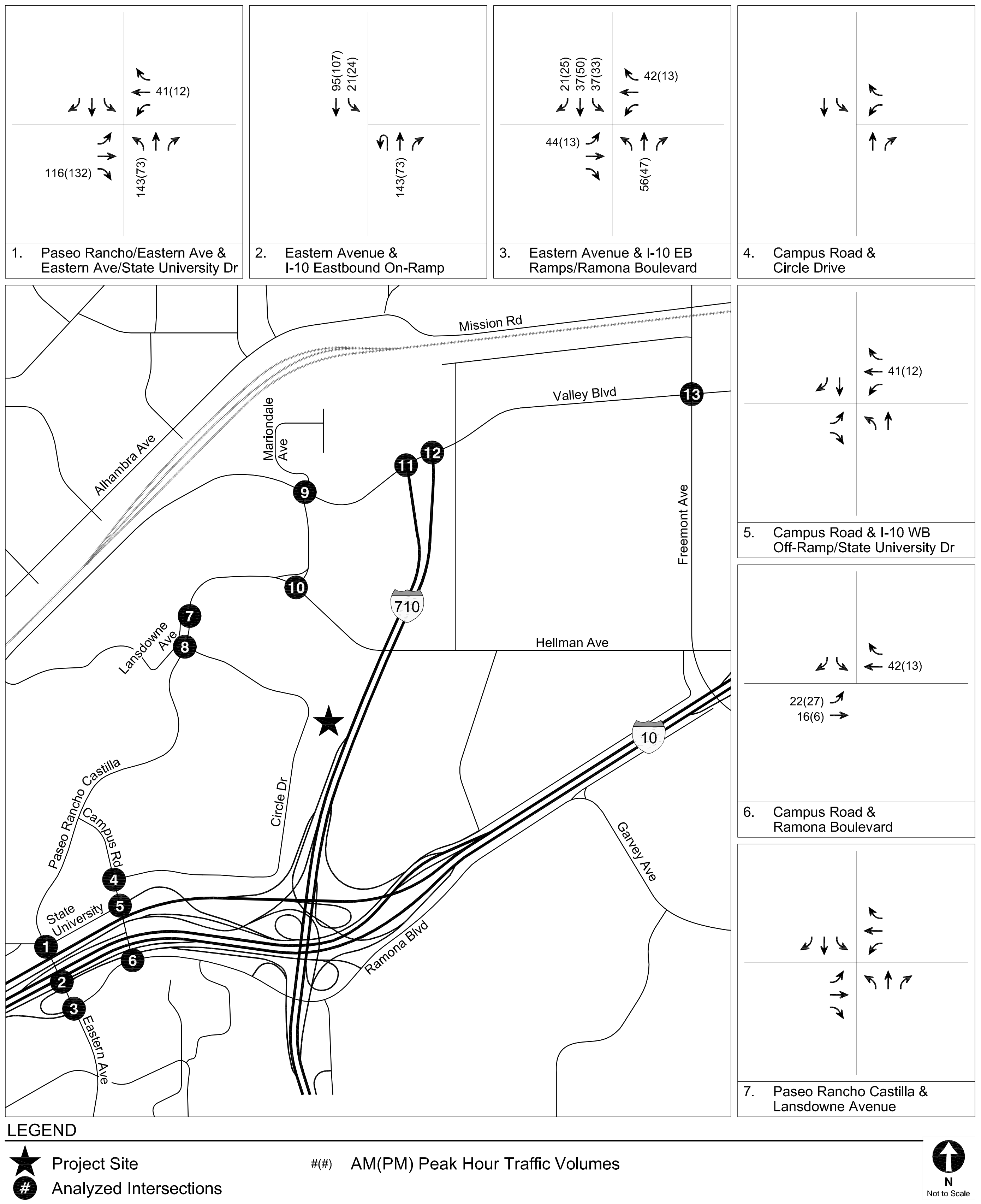
LEGEND

★ Project Site	● # Related Project - City of Los Angeles	○ # Related Project - City of Alhambra

N
Not to Scale

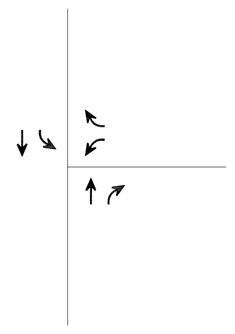
LOCATIONS OF RELATED PROJECTS

FIGURE
5

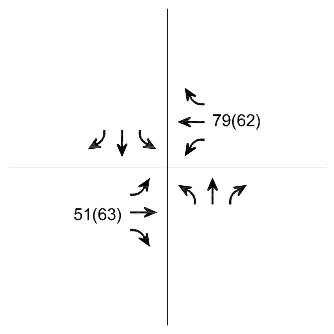


RELATED PROJECT-ONLY
PEAK HOUR TRAFFIC VOLUMES

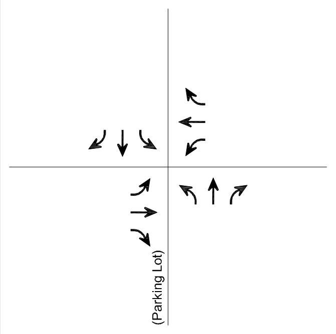
FIGURE
6



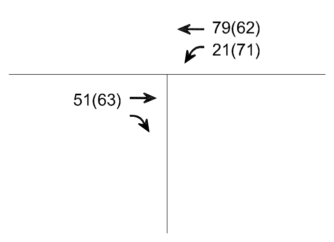
8. Paseo Rancho Castilla & Circle Drive



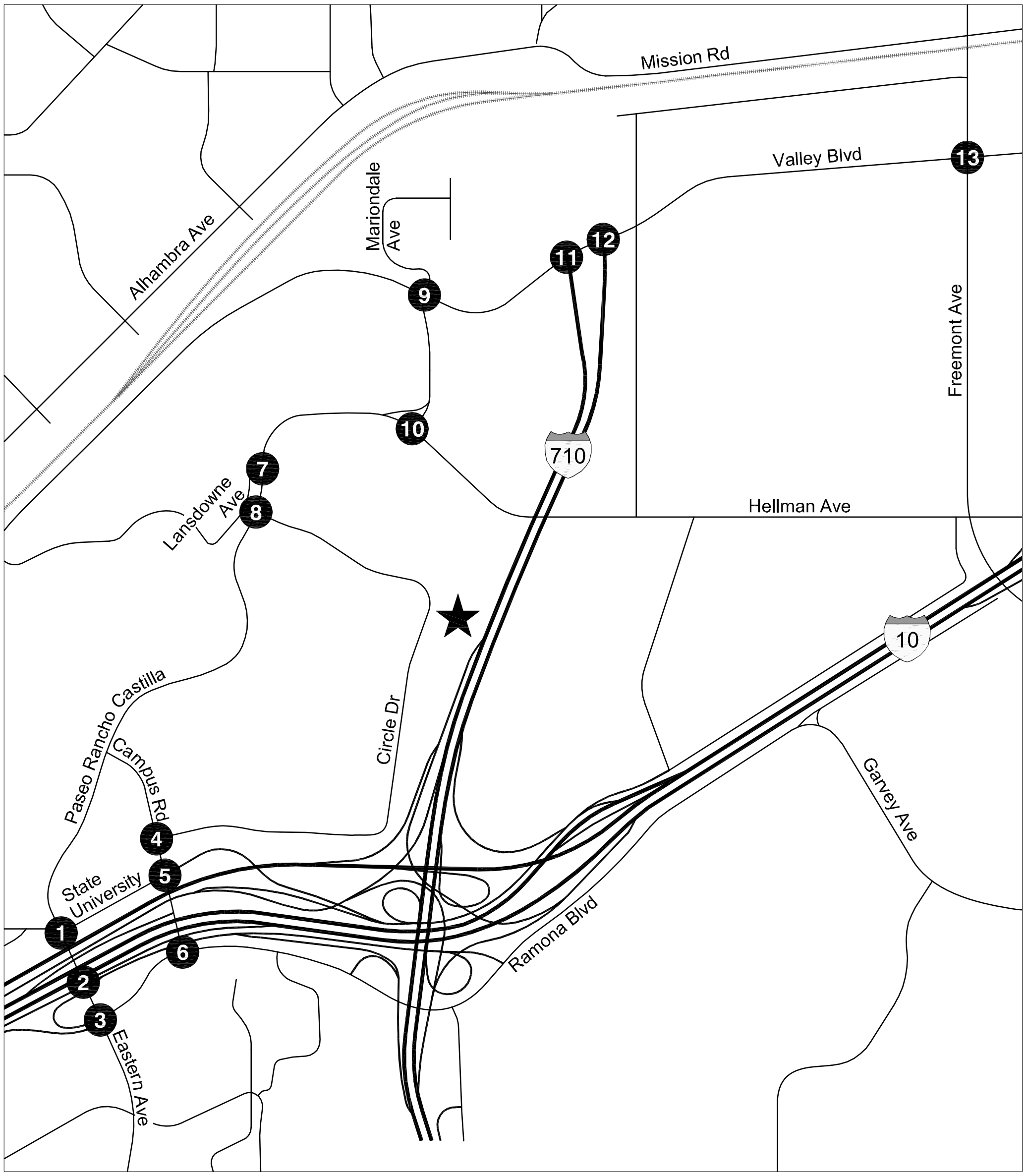
9. Mariondale Avenue & Valley Boulevard

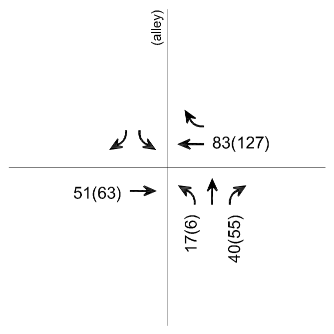


10. Mariondale Avenue & Paseo Rancho Castilla

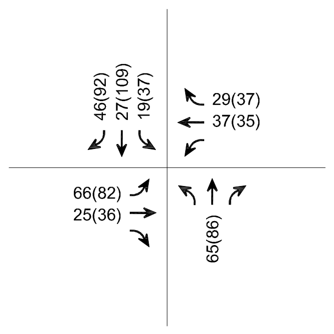


11. I-710 Southbound On-Ramp & Valley Boulevard





12. I-710 Northbound Off-Ramp & Valley Boulevard



13. Fremont Avenue & Valley Boulevard

LEGEND

★ Project Site

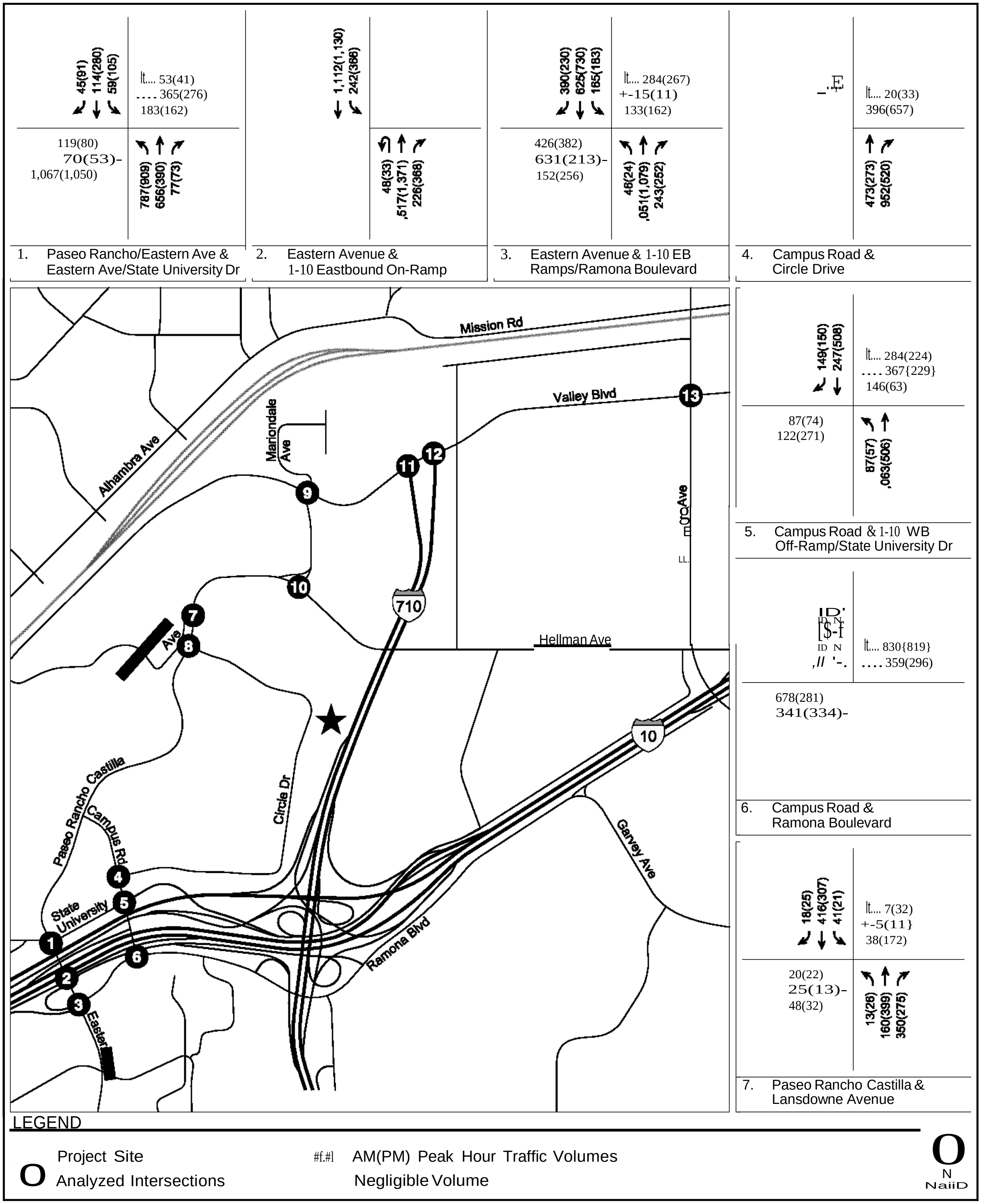
● Analyzed Intersections

#(#) AM(PM) Peak Hour Traffic Volumes

N
Not to Scale

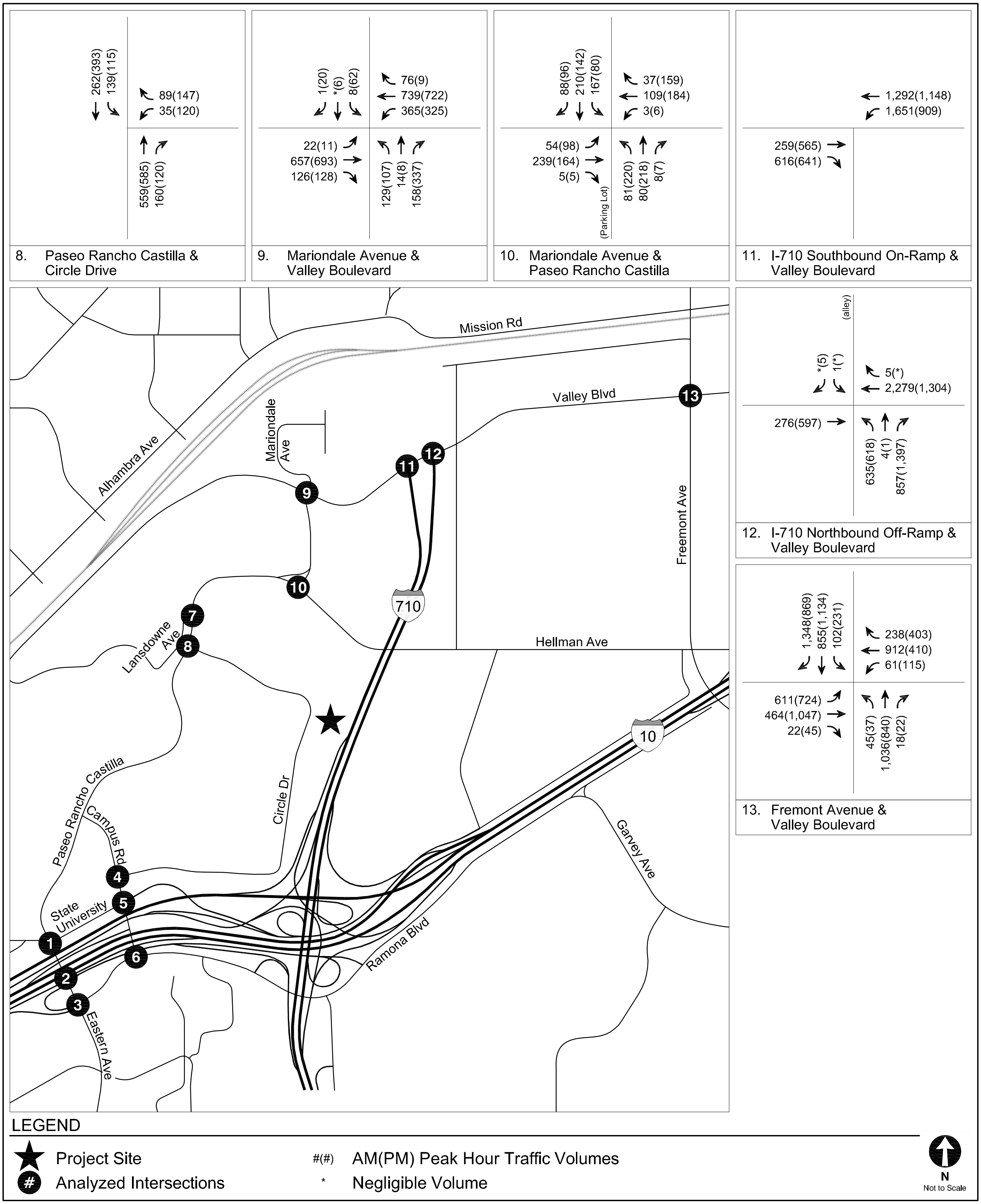
RELATED PROJECT-ONLY
PEAK HOUR TRAFFIC VOLUMES

FIGURE
6 (CONT.)



FUTURE WITHOUT PROJECT CONDITIONS (YEAR 2021)
PEAK HOUR TRAFFIC VOLUMES

FIGURE
7



FUTURE WITHOUT PROJECT CONDITIONS (YEAR 2021)
PEAK HOUR TRAFFIC VOLUMES

FIGURE
7 (CONT.)

TABLE 4
RELATED PROJECTS LIST

No	Project	Address	Land Use	Size	Trip Generation						
					Daily	AM Peak Hour			PM Peak Hour		
						In	Out	Total	In	Out	Total
City of Los Angeles [a]											
1.	Mixed Commercial	5479 E Huntington Drive	Car Wash	1 other	1,155	28	22	50	59	39	98
			Restaurant	1,916 sf							
			Retail	1,880 sf							
2.	Charter School & Mixed Use	2520 Eastern Avenue	School	530 students	1,363	167	155	322	62	59	121
			Apartments	20 du							
			Café	2,320 sf							
3.	Warehouse	1925 N Marianna Avenue	Other	196,000 sf	0	110	24	134	28	83	111
4.	Single Family Homes	2730 N Onyx Drive	Single Family Homes	31 du	358	8	23	31	23	14	37
City of Alhambra [b]											
5.	117 S Raymond Avenue	117 S Raymond Avenue	Office	6,500 sf	72	9	1	10	2	8	10
6.	2300 W Commonwealth Ave, 307-309 Date Ave	2300 W Commonwealth Ave,307-309 Date Ave	Retail	6,040 sf	2,135	92	74	166	98	69	167
			Restaurant	14,760 sf							
7.	1000 S Meridian Avenue [c]	1000 S Meridian Avenue	Retail	136,000 sf	6,678	189	65	254	262	361	623
			Office	79,000 sf							
8.	1428 S Marengo Avenue [c]	1428 S Marengo Avenue	Townhome	126 du	1,915	50	60	110	84	92	176
			Nursing Facility	14,600 sf							
			Retail	12,490 sf							
			Medical Office	18,000 sf							
9.	2400 S Fremont Avenue	2400 S Fremont Avenue	Townhome	28 du	92	(6)	25	19	19	(1)	18
			Single Family Homes	42 du							
				Total	**13,768**	**647**	**449**	**1,096**	**637**	**724**	**1,361**

Notes
sf: square feet
du: dwelling units
[a] Related projects list provided by LADOT, October 2016.
[b] Related projects list provided by City of Alhambra, October 2016.
[c] Project is under environmental review and not yet approved.

TABLE 5
FUTURE WITHOUT PROJECT CONDITIONS (YEAR 2021)
INTERSECTION PEAK HOUR LEVELS OF SERVICE

No	Intersection	Peak Hour	Future without Project	
			V/C or Delay	LOS
1.	Paseo Rancho Castilla/Eastern Avenue & Eastern Avenue/State University Drive	A.M. P.M.	0.997 1.067	E F
2. [a]	Eastern Avenue & I-10 Eastbound On-Ramp	A.M. P.M.	0.376 0.421	A A
3. [a]	Eastern Avenue & I-10 Eastbound Ramps/Ramona Boulevard	A.M. P.M.	0.688 0.634	B B
4. [b]	Campus Road & Circle Drive	A.M. P.M.	50.8 50.8	F F
5. [a]	Campus Road & I-10 Westbound Off-Ramp/State University Drive	A.M. P.M.	0.490 0.361	A A
6.	Campus Road & Ramona Boulevard	A.M. P.M.	0.751 0.491	C A
7.	Paseo Rancho Castilla & Lansdowne Avenue	A.M. P.M.	0.259 0.340	A A
8. [b]	Paseo Rancho Castilla & Circle Drive	A.M. P.M.	15.7 15.7	C C
9.	Mariondale Avenue & Valley Boulevard	A.M. P.M.	0.493 0.538	A A
10. [b]	Mariondale Avenue & Paseo Rancho Castilla	A.M. P.M.	17.3 17.3	C C
11. [a] [c]	I-710 Southbound On-Ramp & Valley Boulevard	A.M. P.M.	1.058 0.817	F D
12. [a] [c]	I-710 Northbound Off-Ramp & Valley Boulevard	A.M. P.M.	0.804 0.741	D C
13. [c]	Fremont Avenue & Valley Boulevard	A.M. P.M.	1.160 1.146	F F

Notes:

Delay is measured in seconds (using HCM based Synchro)

[a] Intersection shares jurisdiction with Caltrans and analyzed based on local jurisdiction methodology.

For analysis based on Caltrans methodology, see appendix E for Existing and Future (Year 2035) conditions.

[b] Intersection is unsignalized and analyzed based on HCM 2010 methodology via Synchro.

[c] Intersection analyzed based on City of Alhambra LOS criteria (ICU methodology).

Chapter 5

Project Traffic

An estimate of the Project's potential trip generation, trip distribution patterns, and trip assignment was prepared for the Project. These components form the basis of the Project's TIA.

PROJECT TRAFFIC VOLUMES

The first step of the forecasting process is trip generation, which estimates the total arriving and departing trips generated by the Project on a peak hour basis by applying the appropriate vehicle trip generation equations, or rates, to the size and land use designation of the Project development.

The second step of the forecasting process is trip distribution, which identifies the origins and destinations of inbound and outbound Project trips. These origins and destinations are typically based on demographics and existing/anticipated travel patterns in the Study Area. Localized routes of travel through the Study Area are developed based on existing traffic patterns and relative travel times on various corridors.

The third step of the forecasting process is traffic assignment. This involves applying the traffic generated by the Project (the trip generation) to the intersections and street segments in the Study Area according to the projected trip distribution patterns.

With the forecasting process complete and Project traffic assignments developed, the impact of the proposed Project is isolated by comparing operational (i.e., LOS) conditions at the study intersections without and with net Project traffic. The need for site-specific and/or cumulative local area traffic improvements may then be evaluated and the significance of the Project's impacts identified.

PROJECT TRIP GENERATION

The Project proposes to construct a new student housing complex that consists of 1,500 beds, dining facilities and support services on the northeastern portion of the campus along Paseo Rancho Castilla, adjacent to I-710. This would shift 1,500 existing students from commuters to dorm students. The dorm students would not be allowed to have cars on campus. The Project would also provide 100 additional parking spaces in a parking structure. In addition, the Project will provide intramural soccer fields for internal campus use and a soccer training facility for the use by a major soccer league team. The training facility would include a field for training and practice and a building to accommodate the coaching and training staffs as well as treatment and fitness facilities. Youth soccer programs and summer training camps may also be run out of the training facility. The Project is anticipated to be completed by year 2021.

The number of trips expected to be generated by the Project was estimated using rates published in regionally recognized trip generation publications, relevant studies and rates derived from research on similar land uses/facilities and described as follows:

- The trip generation rates for the shift in commuter students land use were based on Land Use Code 550 (University/College) defined in *Trip Generation, 9th Edition* (Institute of Transportation Engineers, 2012).
- The student housing land use is unique in its proximity to the on-campus components. Regionally recognized trip generation publications (such as those published by the Institute of Transportation Engineers or the San Diego Association of Governments) do not provide rates for this specific use. After conducting research for similar facilities, as well as considering the Project’s proximity to campus classrooms and activities, it was determined that the Project’s trip generation was most relevant to the rates provided in *Technical Memorandum: Trip Generation Study – Private Student Housing Apartments* (Spack Consulting, 2012). This analysis included many of the same characteristics of the Project and was the most suitable resource to estimate traffic for on-campus student housing. These trip generation rates were used in the traffic impact analysis of new student housing at California State Polytechnic University, Pomona and were accepted by the California State University system and by the City of Pomona. The Project also includes construction of a new dining hall. For the purposes of this analysis, it is assumed that any trips associated with the dining hall are accounted for in the student housing trip generation and would not generate any new trips.
- The internal campus soccer facility would not generate any new external trips as this would only be used by CSULA students and faculty.
- Trip generation rates for the major league sports facility land use were determined based on the number of provided parking spaces and information on the number of anticipated players and staff, as no rates were readily available in the trip generation publications.

Based on research on the major soccer league program, the sports facility land use is anticipated to be occupied by approximately 30 professional league members, approximately 30 staff members, as well as approximately 25 Under-12 (U-12) league members. The trip generation rates and arrival/departure pattern are described in Table 6.

- Per *Traffic Study Policies and Procedures*, a 15% transit/walk-in adjustment was applied to the shift in commuter students to dorm students to account for existing transit usage of campus shuttles to the CSULA busway station and CSULA Metrolink station.

As shown in Table 6, the Project, including the transit trip credit described above, is estimated to generate a net reduction of 1,736 daily trips, including a net reduction of 134 morning peak hour trips (net reduction of 104 inbound and 134 outbound trips) and a net reduction of 115 afternoon peak hour trips (net reduction of 36 inbound and 79 outbound trips).

PROJECT TRIP DISTRIBUTION

The traffic volumes were distributed and assigned to the local street system. The distribution was conducted based on existing travel patterns in the Study Area for student housing resident origins/destinations. This distribution pattern reflects how vehicles are currently arriving/leaving CSULA.

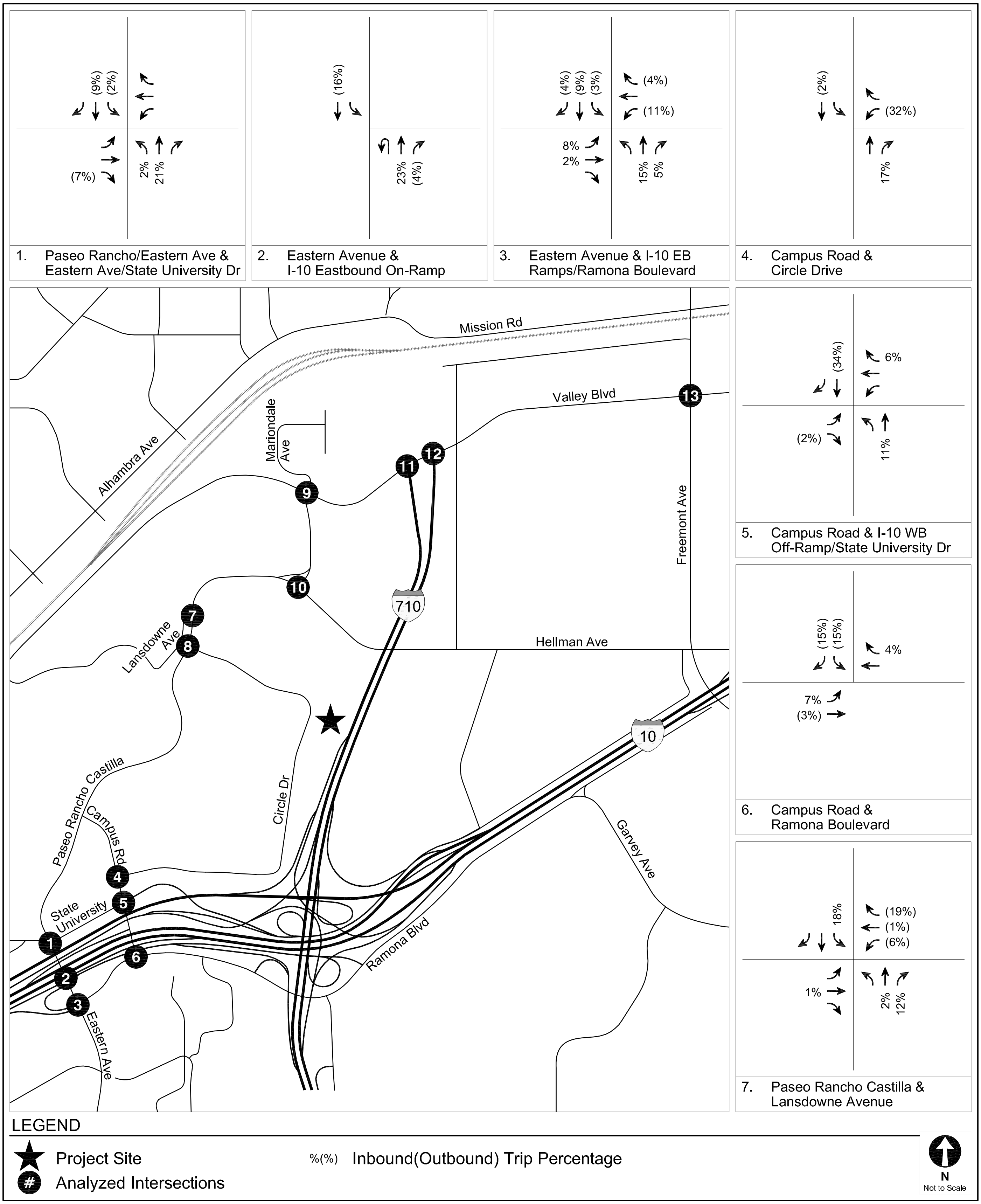
Localized routes of travel through the Study Area were developed based on existing traffic patterns and relative travel times on various corridors and the level of accessibility of the route to and from the Project Site. The Project trip distribution used for this analysis was developed based on the locations of the Project driveways and the accessibility they would provide to the residents of the building.

Traffic entering and exiting the Project were distributed to the surrounding street system. The intersection-level trip distribution patterns for the Project are shown in Figure 8. The general pattern is as follows:

- 15% to/from the north
- 41% to/from the south
- 17% to/from the east
- 27% to/from west

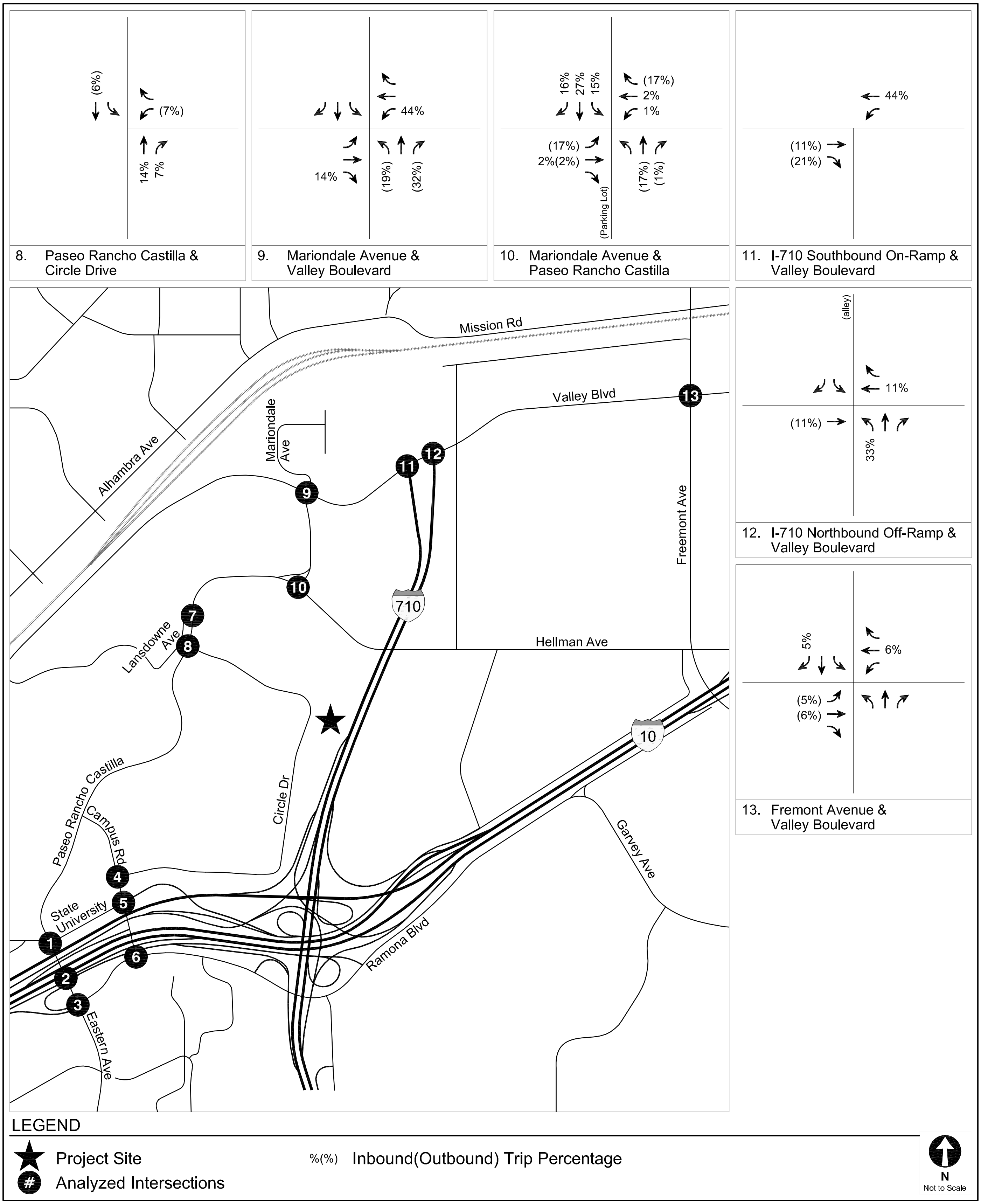
PROJECT TRIP ASSIGNMENT

The Project trip generation estimates summarized in Table 6 and the trip distribution patterns shown in Figure 8 were used to assign the Project-generated traffic through the study intersections. Figure 9 illustrates the Project-only traffic volumes at the study intersections during typical weekday morning and afternoon peak hours.



TRIP DISTRIBUTION

FIGURE 8



8. Paseo Rancho Castilla & Circle Drive

9. Mariondale Avenue & Valley Boulevard

10. Mariondale Avenue & Paseo Rancho Castilla

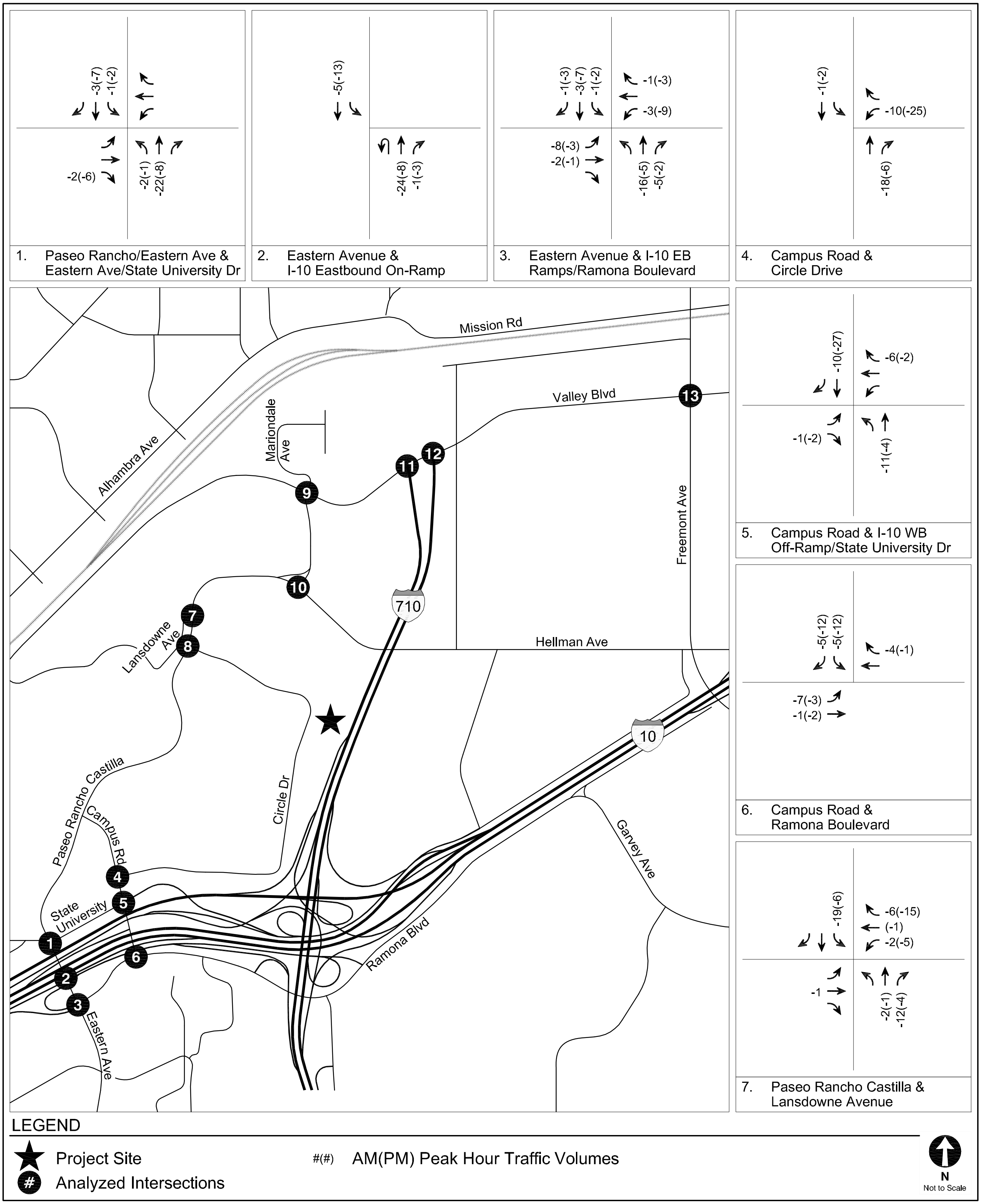
11. I-710 Southbound On-Ramp & Valley Boulevard

12. I-710 Northbound Off-Ramp & Valley Boulevard

13. Fremont Avenue & Valley Boulevard

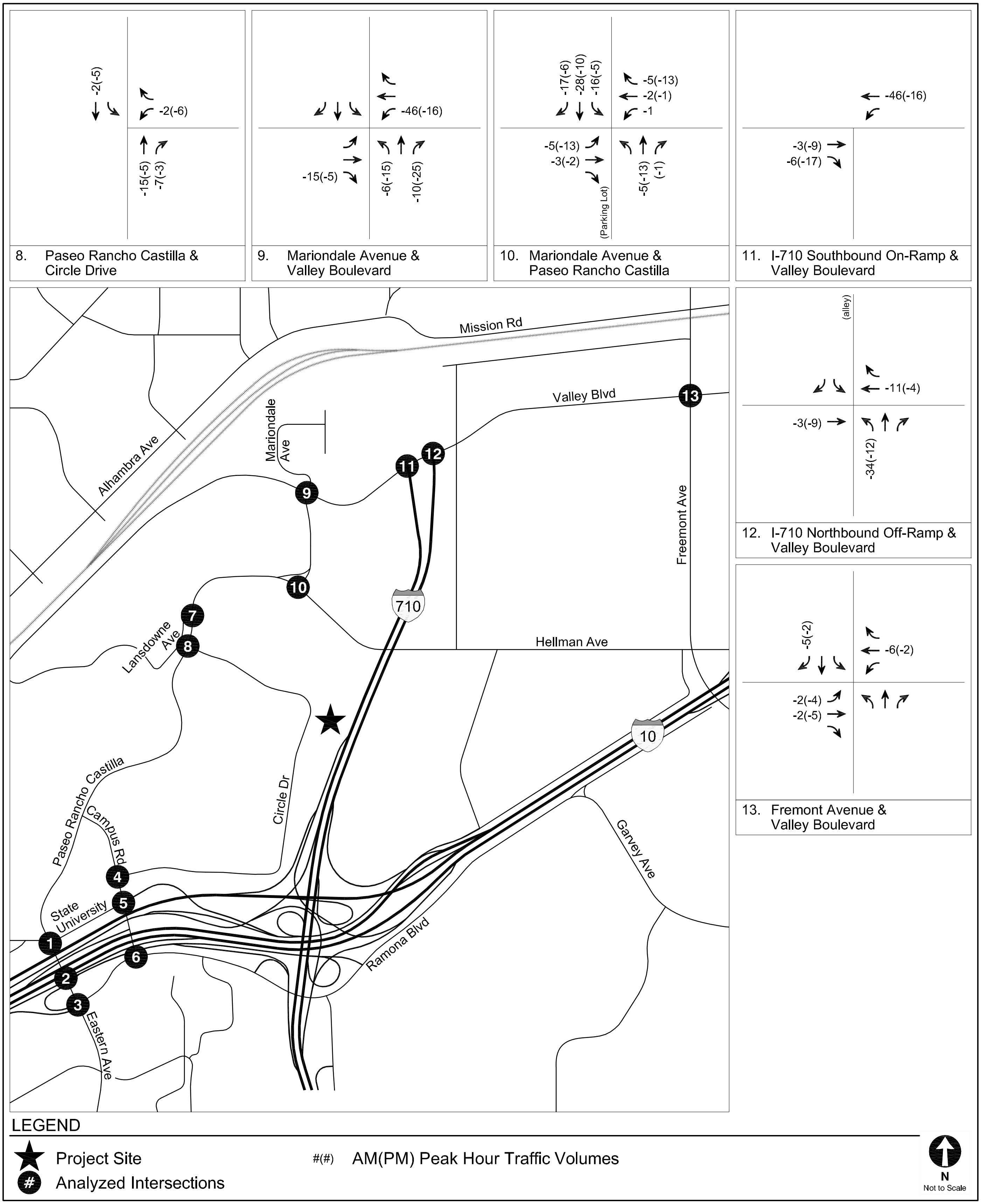
TRIP DISTRIBUTION

FIGURE 8 (CONT.)



PROJECT-ONLY
PEAK HOUR TRAFFIC VOLUMES

FIGURE
9



PROJECT-ONLY
PEAK HOUR TRAFFIC VOLUMES

FIGURE
9 (CONT.)

TABLE 6
PROJECT TRIP GENERATION ESTIMATES

TRIP GENERATION RATES

Land Use	Rate	Daily	A.M. Peak Hour			P.M. Peak Hour		
			In	Out	Total	In	Out	Total
University/College (ITE Code 550) [a]	per student	1.71	78%	22%	0.17	32%	68%	0.17
Student Housing [b]	per bed	1.42	43%	57%	0.07	53%	47%	0.13
Sports Facility [c]	per person							

TRIP GENERATION ESTIMATES

Land Use	Size	Daily	A.M. Peak Hour			P.M. Peak Hour		
			In	Out	Total	In	Out	Total
Proposed Project								
Shift in Commuter Students [d]	1,500 students	(2,565)	(199)	(56)	(255)	(82)	(173)	(255)
Transit/Walk-In Adjustment - 15% [e]		*385*	*30*	*8*	*38*	*12*	*26*	*38*
New Parking Spaces [f]	200 students	284	6	8	14	14	12	26
Subtotal - Student Housing		**(1,896)**	**(163)**	**(40)**	**(203)**	**(56)**	**(135)**	**(191)**
Major League Soccer Field								
Players	30 persons	55	27	0	27	0	27	27
Staff	30 persons	55	27	0	27	0	14	14
Others	25 persons	50	5	10	15	20	15	35
Subtotal - Soccer Field		**160**	**59**	**10**	**69**	**20**	**56**	**76**
TOTAL - NET PROJECT TRIPS		**(1,736)**	**-104**	**-30**	**-134**	**-36**	**-79**	**-115**

Notes:

[a] Source: *Trip Generation, 9th Edition* (Institute of Transportation Engineers, 2012).

[b] Source: *Trip Generation Study - Private Student Housing Apartments Technical Memorandum* (Spack Consulting, April 2012).

[c] Trip generation rates based on the following assumptions:
Major soccer league players - 100% arrival during AM peak, 100% departure during PM peak,
1.1 AVR staff - 100% arrival during AM peak, 50% departure during PM peak, 1.1 AVR
Other - includes service vehicles and youth academy trips, 1.1 AVR

[d] Shift in commuter students to dorm students would reduce incoming/outgoing traffic to the school.

[e] Per LADOT's *Traffic Study Policies and Procedures,* the Project Site is located nearby transit stops, including CSULA busway station and CSULA Metrolink station, in addition to shuttle stops serving the campus and therefore a transit reduction is applied to account for transit usage.

[f] The students living in new housing will not be allowed to have automobiles as no further additional parking will be provided for these students. However, since the parking structure will provide 100 new parking spaces; trips equivalent to 200 dorm students daily trips are assigned to these spaces.

Chapter 6

Existing with Project Conditions

This chapter describes the results of the analysis of intersection operating conditions associated with the Project development added to Existing Conditions. Within this chapter, the Existing with Project Conditions are presented for the seven study intersections. The results of these analyses form the basis of the intersection impact analysis presented in Chapter 8.

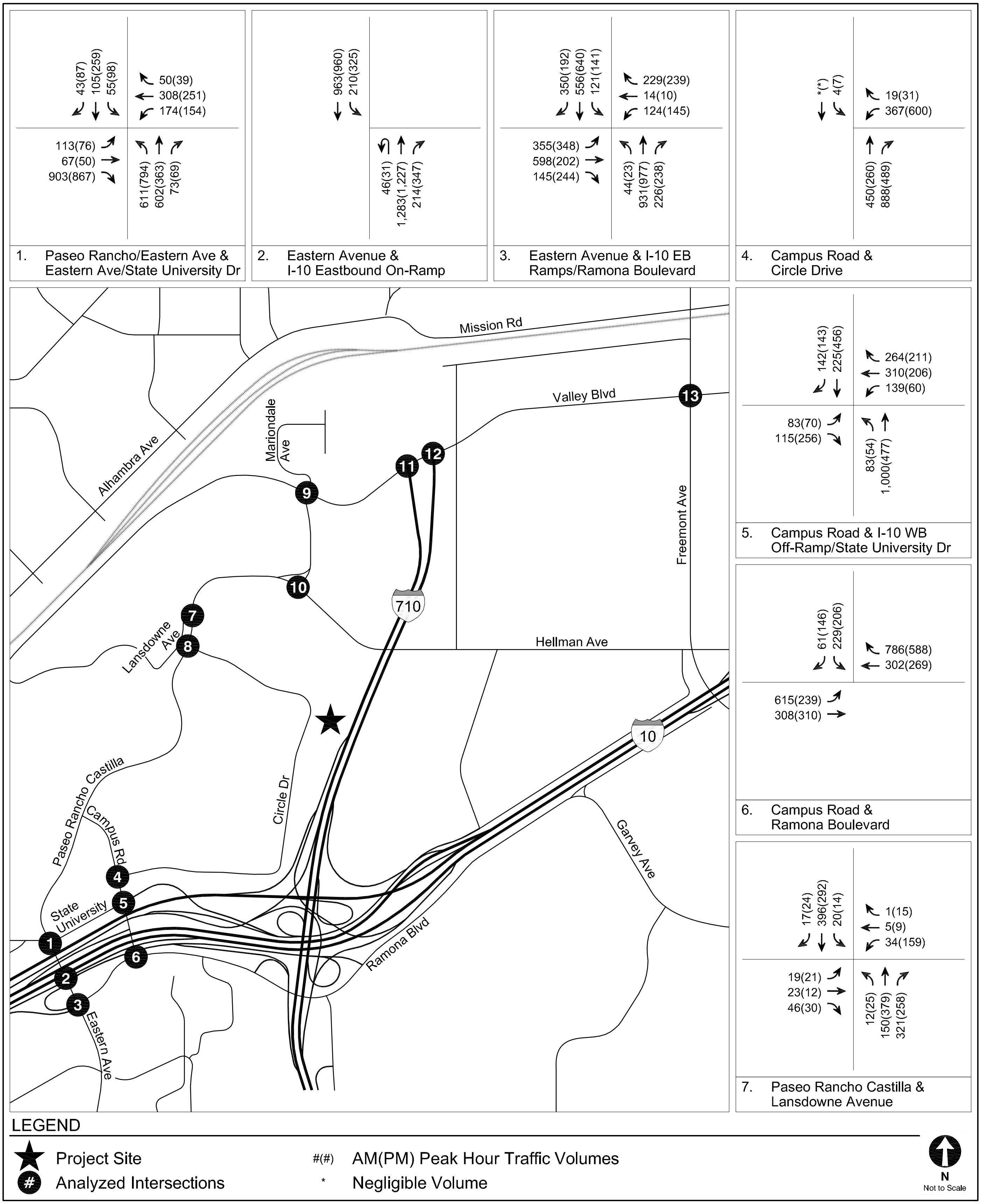
EXISTING WITH PROJECT INTERSECTION OPERATIONS

The Existing with Project Conditions are analyzed on the same roadway network as the Existing Conditions. The Project-only traffic volumes described in Chapter 5 and shown in Figure 9 were added to the Existing traffic volumes shown in Figure 4 to obtain the Existing with Project peak hour traffic volumes shown in Figure 10.

The study intersections were analyzed using the methodologies described in Chapter 2. The Existing with Project intersection operating conditions for typical weekday morning and afternoon peak hours are shown in Table 7. As shown, under the Existing with Project Conditions, nine of the 13 study intersections are anticipated to operate at LOS D or better during both the morning and afternoon peak hours. The following four study intersections operate at LOS E or F during at least one of the analyzed peak hours under Existing with Project Conditions:

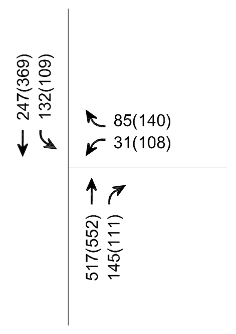
- Paseo Rancho Castilla/Eastern Avenue & Eastern Avenue/State University Drive (PM)
- Campus Road & Circle Drive (AM and PM)
- I-710 Southbound On-Ramp & Valley Boulevard (AM)
- Fremont Avenue & Valley Boulevard (AM and PM)

Detailed LOS worksheets are provided in Appendix C.

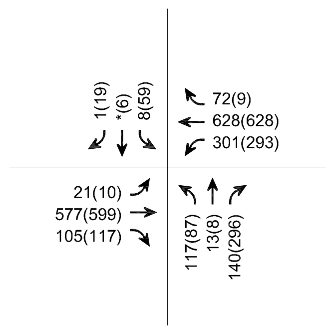


EXISTING WITH PROJECT CONDITIONS (YEAR 2016)
PEAK HOUR TRAFFIC VOLUMES

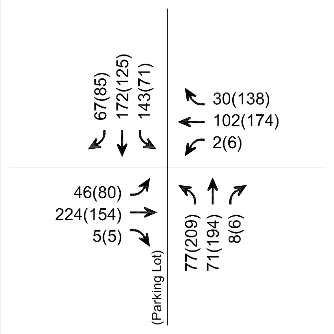
FIGURE
10



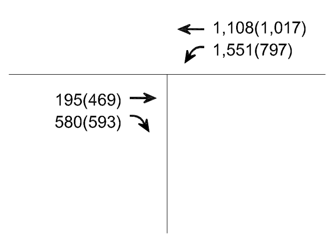
8. Paseo Rancho Castilla & Circle Drive



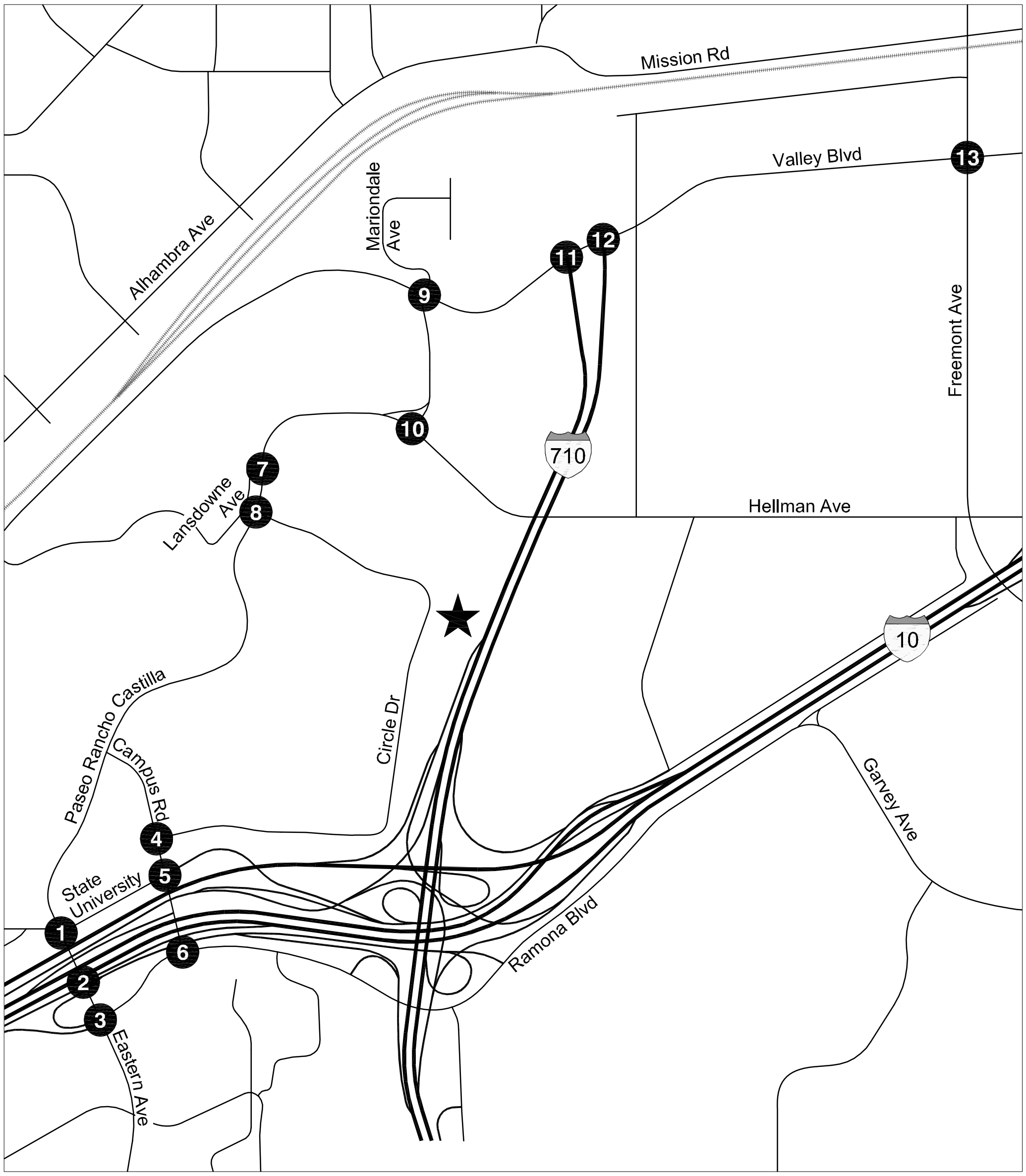
9. Mariondale Avenue & Valley Boulevard

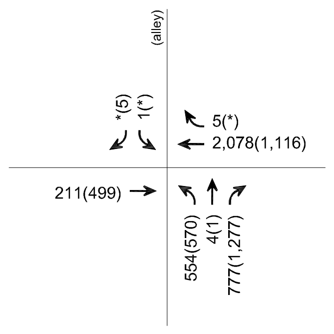


10. Mariondale Avenue & Paseo Rancho Castilla

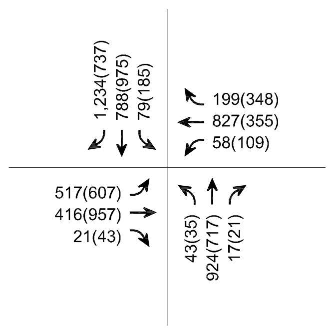


11. I-710 Southbound On-Ramp & Valley Boulevard





12. I-710 Northbound Off-Ramp & Valley Boulevard



13. Fremont Avenue & Valley Boulevard

LEGEND

★ Project Site

\# Analyzed Intersections

\#(#) AM(PM) Peak Hour Traffic Volumes

* Negligible Volume

N Not to Scale

EXISTING WITH PROJECT CONDITIONS (YEAR 2016)
PEAK HOUR TRAFFIC VOLUMES

FIGURE 10 (CONT.)

TABLE 7
EXISTING WITH PROJECT CONDITIONS
INTERSECTION PEAK HOUR LEVELS OF SERVICE

No	Intersection	Peak Hour	Existing		Existing with Project			
			V/C or Delay	LOS	V/C or Delay	LOS	Change in V/C	Impact
1.	Paseo Rancho Castilla/Eastern Avenue & Eastern Avenue/State University Drive	A.M. P.M.	0.816 0.950	D E	0.812 0.946	D E	-0.004 -0.004	NO NO
2. [a]	Eastern Avenue & I-10 Eastbound On-Ramp	A.M. P.M.	0.315 0.371	A A	0.310 0.369	A A	-0.005 -0.002	NO NO
3. [a]	Eastern Avenue & I-10 Eastbound Ramps/Ramona Boulevard	A.M. P.M.	0.587 0.561	A A	0.581 0.556	A A	-0.006 -0.005	NO NO
4. [b]	Campus Road & Circle Drive	A.M. P.M.	48.3 48.3	E E	47.8 47.8	E E	-- --	-- --
5. [a]	Campus Road & I-10 Westbound Off-Ramp/State University Drive	A.M. P.M.	0.453 0.339	A A	0.447 0.329	A A	-0.006 -0.010	NO NO
6.	Campus Road & Ramona Boulevard	A.M. P.M.	0.687 0.447	B A	0.680 0.438	B A	-0.007 -0.009	NO NO
7.	Paseo Rancho Castilla & Lansdowne Avenue	A.M. P.M.	0.242 0.319	A A	0.240 0.311	A A	-0.002 -0.008	NO NO
8. [b]	Paseo Rancho Castilla & Circle Drive	A.M. P.M.	14.2 14.2	B B	13.8 13.8	B B	-- --	-- --
9.	Mariondale Avenue & Valley Boulevard	A.M. P.M.	0.447 0.486	A A	0.411 0.463	A A	-0.036 -0.023	NO NO
10. [b]	Mariondale Avenue & Paseo Rancho Castilla	A.M. P.M.	16.1 16.1	C C	14.9 14.9	B B	-- --	-- --
11. [a] [c]	I-710 Southbound On-Ramp & Valley Boulevard	A.M. P.M.	1.005 0.758	F C	1.002 0.748	F C	-0.003 -0.010	NO NO
12. [a] [c]	I-710 Northbound Off-Ramp & Valley Boulevard	A.M. P.M.	0.745 0.674	C B	0.735 0.673	C B	-0.010 -0.001	NO NO
13. [c]	Fremont Avenue & Valley Boulevard	A.M. P.M.	1.027 0.989	F E	1.024 0.986	F E	-0.003 -0.003	NO NO

Notes:

Delay is measured in seconds (using HCM based Synchro)

[a] Intersection shares jurisdiction with Caltrans and analyzed based on local jurisdiction methodology. For analysis based on Caltrans methodology, see Appendix E for Existing and Future (Year 2035) conditions.

[b] Intersection is unsignalized and analyzed based on HCM 2010 methodology via Synchro.

[c] Intersection analyzed based on City of Alhambra LOS criteria (ICU methodology).

Chapter 7

Future with Project Conditions

This chapter describes the results of the analysis of intersection operating conditions associated with the Project development added to future conditions. The analysis of year 2021 corresponds to the anticipated buildout year of the Project. Within this chapter, the Future with Project Conditions are presented for the seven study intersections. The results of these analyses form the basis of the intersection impact analysis presented in Chapter 8.

FUTURE WITH PROJECT (YEAR 2021) INTERSECTION OPERATIONS

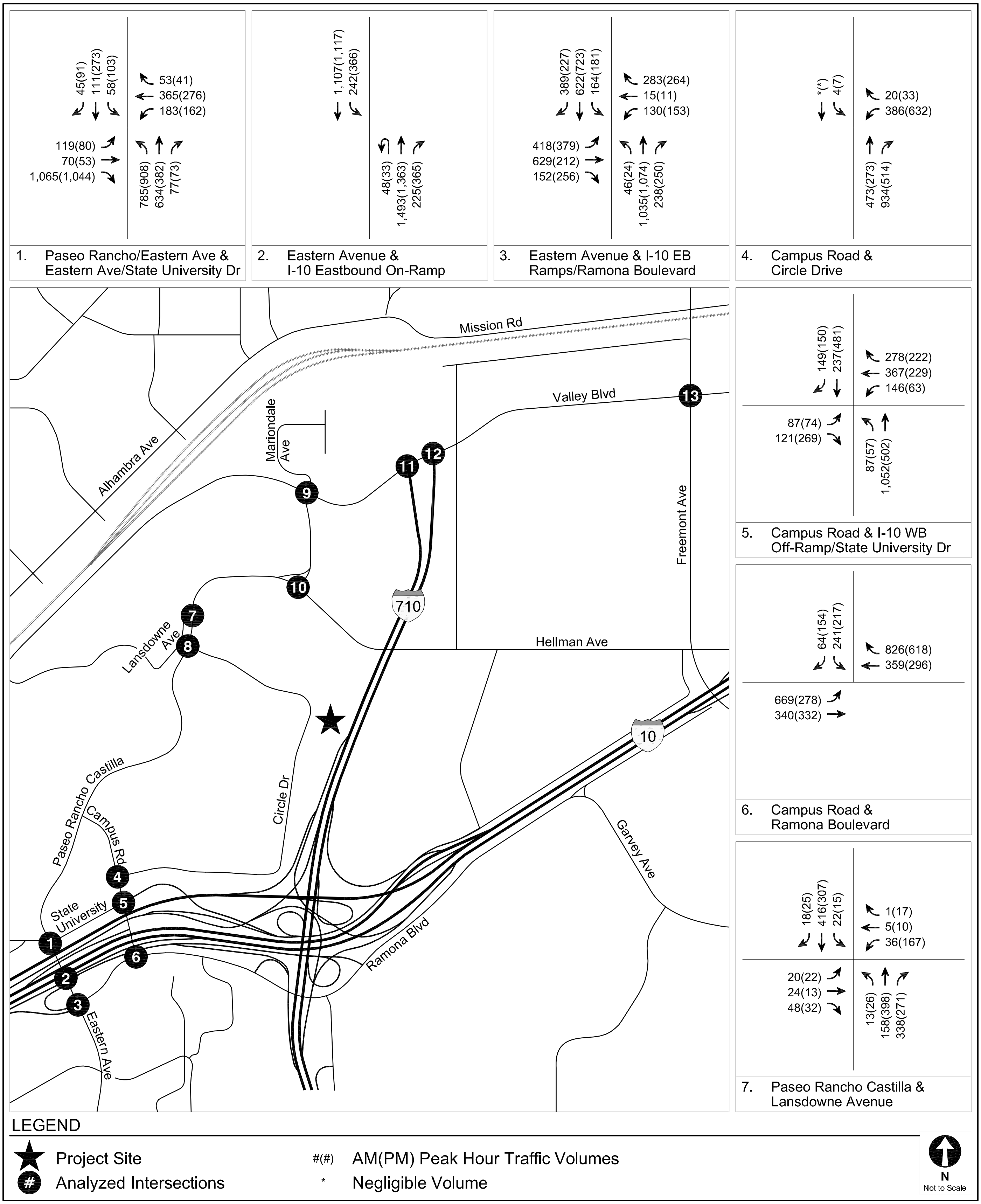
The Future with Project (Year 2021) Conditions analyzed the traffic volumes, roadways, and intersection configurations that would exist in the year 2021 following full development of the Project including improvements constructed by other projects on the roadway network. The Project-only traffic volumes described in Chapter 5 and shown in Figure 9 were added to the Future without Project (Year 2021) traffic volumes shown in Figure 7 to obtain the Future with Project (Year 2021) peak hour traffic volumes shown in Figure 11.

The study intersections were analyzed using the methodologies described in Chapter 2. The Future with Project (Year 2021) intersection operating conditions for typical weekday morning and afternoon peak hours are shown in Table 8. As shown, under the Future with Project (Year 2021) Conditions, nine of the 13 study intersections are anticipated to operate at LOS D or better during both the morning and afternoon peak hours. The following four intersections are anticipated to operate at LOS E or LOS F during at least one of the analyzed peak hours under Future with Project conditions:

- Paseo Rancho Castilla/Eastern Avenue & Eastern Avenue/State University Drive (AM and PM)
- Campus Road & Circle Drive (AM and PM)

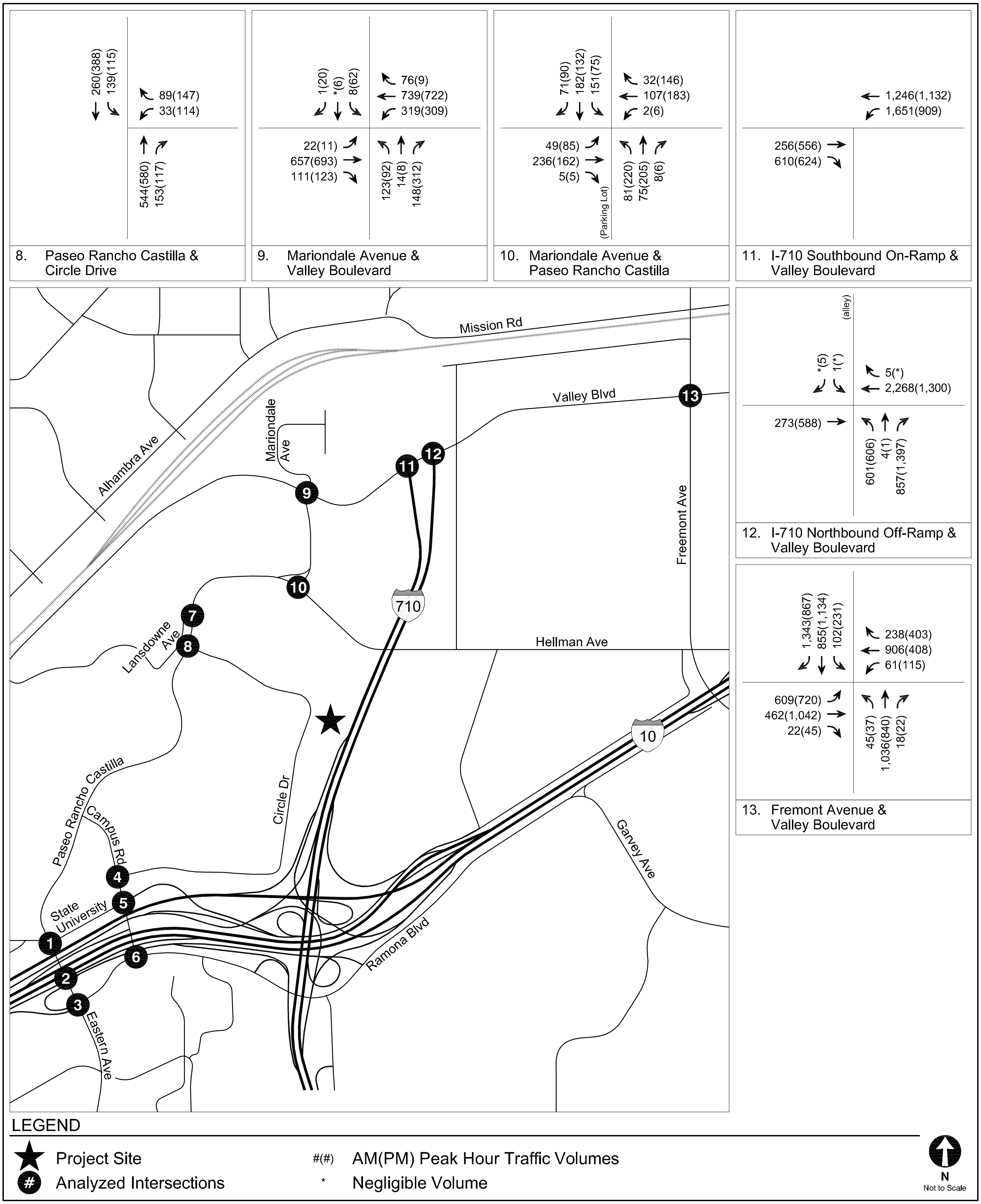
- I-710 Southbound On-Ramp & Valley Boulevard (AM)
- Fremont Avenue & Valley Boulevard (AM and PM)

Detailed LOS worksheets are provided in Appendix C.



FUTURE WITH PROJECT CONDITIONS (YEAR 2021)
PEAK HOUR TRAFFIC VOLUMES

FIGURE
11



FUTURE WITH PROJECT CONDITIONS (YEAR 2021)
PEAK HOUR TRAFFIC VOLUMES

FIGURE
11 (CONT.)

TABLE 8
FUTURE WITH PROJECT CONDITIONS (YEAR 2021)
INTERSECTION PEAK HOUR LEVELS OF SERVICE

No	Intersection	Peak Hour	Future without Project		Future with Project			
			V/C or Delay	LOS	V/C or Delay	LOS	Change in V/C	Impact
1.	Paseo Rancho Castilla/Eastern Avenue &	A.M.	0.997	E	0.993	E	-0.004	NO
	Eastern Avenue/State University Drive	P.M.	1.067	F	1.062	F	-0.005	NO
2.	Eastern Avenue &	A.M.	0.376	A	0.371	A	-0.005	NO
[a]	I-10 Eastbound On-Ramp	P.M.	0.421	A	0.418	A	-0.003	NO
3.	Eastern Avenue &	A.M.	0.688	B	0.681	B	-0.007	NO
[a]	I-10 Eastbound Ramps/Ramona Boulevard	P.M.	0.634	B	0.628	B	-0.006	NO
4.	Campus Road &	A.M.	50.8	F	50.1	F	--	--
[b]	Circle Drive	P.M.	50.8	F	50.1	F	--	--
5.	Campus Road &	A.M.	0.490	A	0.485	A	-0.005	NO
[a]	I-10 Westbound Off-Ramp/State University Drive	P.M.	0.361	A	0.351	A	-0.010	NO
6.	Campus Road &	A.M.	0.751	C	0.744	C	-0.007	NO
	Ramona Boulevard	P.M.	0.491	A	0.480	A	-0.011	NO
7.	Paseo Rancho Castilla &	A.M.	0.259	A	0.257	A	-0.002	NO
	Lansdowne Avenue	P.M.	0.340	A	0.332	A	-0.008	NO
8.	Paseo Rancho Castilla &	A.M.	15.7	C	15.1	C	--	--
[b]	Circle Drive	P.M.	15.7	C	15.1	C	--	--
9.	Mariondale Avenue &	A.M.	0.493	A	0.456	A	-0.037	NO
	Valley Boulevard	P.M.	0.538	A	0.515	A	-0.023	NO
10.	Mariondale Avenue &	A.M.	17.3	C	16.2	C	--	--
[b]	Paseo Rancho Castilla	P.M.	17.3	C	16.2	C	--	--
11.	I-710 Southbound On-Ramp &	A.M.	1.058	F	1.054	F	-0.004	NO
[a] [c]	Valley Boulevard	P.M.	0.817	D	0.806	D	-0.011	NO
12.	I-710 Northbound Off-Ramp &	A.M.	0.804	D	0.794	C	-0.010	NO
[a] [c]	Valley Boulevard	P.M.	0.741	C	0.740	C	-0.001	NO
13.	Fremont Avenue &	A.M.	1.160	F	1.157	F	-0.003	NO
[c]	Valley Boulevard	P.M.	1.146	F	1.143	F	-0.003	NO

Notes:

Delay is measured in seconds (using HCM based Synchro)

[a] Intersection shares jurisdiction with Caltrans and analyzed based on local jurisdiction methodology. For analysis based on Caltrans methodology, see Appendix E for Existing and Future (Year 2035) conditions.

[b] Intersection is unsignalized and analyzed based on HCM 2010 methodology via Synchro.

[c] Intersection analyzed based on City of Alhambra LOS criteria (ICU methodology).

Chapter 8

Traffic Impact Analysis

This chapter describes the results of the intersection impact analysis for the proposed Project under both Existing (Year 2016) and Future (Year 2021) Conditions. Both analyses measured significant intersection impacts according to the impact criteria specified by the *Traffic Study Policies and Procedures* guidelines.

The relative impact of added Project traffic volumes during the peak hours was evaluated based on a comparative analysis of both existing and future operating conditions without the Project at the study intersections. The previously discussed significance criteria and thresholds outlined in Chapter 2 were used to determine the significance of a traffic impact caused by the Project on the study intersections.

EXISTING WITH PROJECT CONDITIONS

Table 7 shows the Project's incremental increases in V/C ratio at each of the study intersections. Based on the significance criteria presented in the *Traffic Study Policies and Procedures* guidelines, the Project is not anticipated to result in significant impacts at any of the study intersections under the Existing with Project Conditions. Therefore, no mitigation measures are required under the Existing with Project Conditions.

FUTURE WITH PROJECT CONDITIONS (YEAR 2021)

Table 8 shows the Project's incremental increases in V/C ratio at each of the study intersections. Based on the significance criteria presented in the *Traffic Study Policies and Procedures* guidelines, the Project is not anticipated to result in a significant impact at any of the study intersections under the Future with Project (Year 2021) Conditions. Therefore, no mitigation measures are required under the Future with Project (Year 2021) Conditions.

CALIFORNIA DEPARTMENT OF TRANSPORTATION (CALTRANS) ANALYSIS

Freeway Mainline Segments

Existing freeway volumes for I-10 were collected using Caltrans' Performance Measurement System (PeMS) data for the average weekday in July 2016. Existing freeway volumes for I-710 were collected using Caltrans recently published traffic count data (*2014 Traffic Volumes on California State Highways,* Caltrans, 2015). This data consists of the annual average daily traffic (AADT) volumes, as well as the two-way peak hour percent of AADT factor ("K factor") and the percent traffic in the peak direction factor ("D factor"), which were used to develop peak hour volumes.

For consistency with Caltrans long-range planning, each Caltrans facility was analyzed for year 2035 conditions in addition to existing year 2016 conditions. The existing traffic volumes were increased by both ambient growth (assumed to be 1% per year compounded annually for 19 total years) and Related Project traffic, in the same manner as Future without Project traffic volumes were developed for year 2021 in Chapter 4.

Table 9 presents an analysis of Caltrans freeway mainline segments under all analyzed conditions. As shown in Table 9, the Project would result in a reduction of peak hour trips on the Caltrans freeway facilities.

Table 10 shows that the contribution of Project traffic to the freeway system results in a reduction of traffic on Caltrans freeway facilities. A minimum of three Project trips per hour would be removed from any given direction of I-10. Project traffic removed from I-710 is slightly higher with a minimum of six trips per hour per direction removed from the future traffic levels.

As described previously, the Project would not result in significant impacts at any of the analyzed freeway mainline segments and would not contribute to an increase in cumulative future traffic volumes. Table 10 summarizes the calculation of the Project's proportionate share of projected future year 2035 traffic added to each of the freeway mainline segments based on

Appendix B of *Guide for the Preparation of Traffic Impact Studies* (California Department of Transportation, December 2002). As previously noted, the proportionate share is calculated as the Project's percentage of the total projected traffic growth on a freeway mainline segment over the next 19 years (to year 2035).

VEHICLE MILES TRAVELED

Senate Bill 743 will change the methodology for evaluating transportation impacts in California Environmental Quality Act analyses. SB 743 calls for an evaluation of VMT per capita generated by the Project.

SB 743 is still in the development stage. Preliminary guidelines have been published and final rules and guidelines are expected in early 2017. Cities and state agencies like the California State University system will then have two years to implement the VMT analysis. While VMT analyses are not required at this time, this analysis discusses the goals and intent of SB 743 and estimates the potential levels of VMT caused by the Project.

VMT is the total distance, presented in miles, that a vehicle travels from its origin to its destination. This section includes a calculation of how the Project will affect the net amount of VMT generated by the Project for the combination of the students living in the student housing portion of the Project (who turn from commuter students to dorm students), the new commuter students coming to campus as a result of the enrollment increase, and the employees/players using the major soccer league training facility.

As described in Chapter 5, the Project proposes to construct a new student housing complex that will consist of 1,500 beds, dining facilities and support services on the northeastern portion of the campus along Paseo Rancho Castilla, adjacent to I-710. This would shift 1,500 existing students from commuters to dorm students. The dorm students would not be allowed to have cars on campus. The Project would also provide 100 additional parking spaces. In addition, the Project will provide intramural soccer fields for internal campus use and a soccer training facility for the use of a major soccer league players. To calculate the total Project VMT, the average trip length for each land use and its assumptions are described below:

- Based on Metro travel surveys, travel length data provided by CSULA staff shows that the average one-way commute to the campus by the students, faculty and staff is 13.09 miles. This average trip length was applied to the shift in commuter students and new student housing land uses. The new student housing complex would reduce VMT by providing additional on-campus housing for 1,500 students of CSULA. Students who currently commute to/from campus would live on campus and, thus, their daily vehicle miles of travel dramatically decrease. By reducing the current VMT commute distance for each student and bringing those 1,500 students to on-campus housing, the Project is reducing the home-to-school VMT by approximately 33,380 miles (1,500 students x 0.85 auto mode split x 26.18 miles per day). However, the Project would provide additional 100 parking spaces, which would generate VMT by their users. It is likely that the average trip length generated by those 100 spaces would be shorter than student commute distance. Even assuming that the trip distance stayed the same, and generated trips equivalent to 200 dorm students daily trips, the 100 spaces would generate 5,236 daily vehicle miles of travel (100 spaces x 26.18 miles/day). In total, the new student housing complex would generate a reduction in VMT of 28,144 vehicle miles of travel per day.

- As there is no average trip length for a major leagues soccer facility published in any publications, the trip length for a typical place of employment (in this case, a commercial office) was used. Based on the *Southern California Association of Governments (SCAG) Regional Travel Demand Model and 2008 Model Validation* (SCAG, June 2012), the average trip length for a home-to-work commute distance in Los Angeles County is approximately 13.78 miles. This average trip length was applied to the soccer facility to generate approximately 2,343 miles (85 persons x 27.56 mile round trip). Thus, the new soccer facility would generate an increase in VMT.

The net total VMT generated by the Project is the total sum of the VMT generated by each individual use. As described above, the net total VMT for the Project is a net reduction of approximately 25,801 VMT per day. The net reduction in VMT resulting from switching the 1,500 students currently commuting to the campus to instead living on campus will have a beneficial effect on the environment and eliminate those commute trips from the street system surrounding the Project.

Switching students from commuter students to on-campus dorm students is clearly consistent with the goals of Senate Bill 743. The Project gives students the opportunity to attend CSULA in a manner that results in a reduction of VMT. Even with the addition of 100 parking spaces and the construction of the soccer training facility for the major soccer league soccer players, the Project still results in a reduction in VMT and in VMT per capita, decreasing from the existing 26.18 daily VMT for each of the 1,500 existing commuter students to 16.28 daily VMT per capita for the 1,500 dorm students, the 100 additional parking spaces, and the 85 soccer facility players and staff. This reduction clearly meets the State of California initial goal discussion of targeting a 15% reduction in VMT per capita for new projects.

TABLE 9
FREEWAY MAINLINE SEGMENT TRAFFIC VOLUMES

Freeway Mainline Segment	**Peak Hour**	**Direction**	**Vehicles per Hour (VPH)**			
			Existing Conditions [a]	**Existing with Project Conditions**	**Future without Project Conditions (Year 2035)**	**Future with Project Conditions (Year 2035)**
I-10 west of I-710	AM Peak Hour	EB	3,122	3,106	3,885	3,869
		WB	5,201	5,196	6,349	6,344
	PM Peak Hour	EB	5,025	5,020	6,178	6,173
		WB	3,387	3,375	4,231	4,219
I-10 east of I-710	AM Peak Hour	EB	4,889	4,886	5,989	5,986
		WB	4,826	4,816	5,920	5,910
	PM Peak Hour	EB	6,359	6,351	7,801	7,793
		WB	3,458	3,454	4,297	4,293
I-710 north of I-10	AM Peak Hour	NB	1,934	1,900	2,393	2,359
		SB	2,791	2,785	3,393	3,387
	PM Peak Hour	NB	2,427	2,415	2,993	2,981
		SB	1,720	1,703	2,149	2,132
I-710 south of I-10	AM Peak Hour	NB	5,415	5,390	6,638	6,613
		SB	7,815	7,808	9,502	9,495
	PM Peak Hour	NB	6,797	6,788	8,307	8,298
		SB	4,816	4,797	5,941	5,922

Notes

[a] Freeway traffic volume for I-10 based on Caltrans' Performance Measurement System (PeMS) data for the average weekday in July 2016. An ambient growth rate of 1% per year was applied to the year 2014 traffic volume data for I-710 from recent Caltrans published volume data (*2014 Traffic Volumes on the California State Highways*, Caltrans, 2014) to reflect Existing year 2016 traffic conditions.

TABLE 10
PROPORTION OF PROJECTED RELATED TRAFFIC YEAR 2035 CONDITIONS

Freeway Mainline Segment	Peak Hour	Direction	Vehicles per Hour (VPH)					Proportion of Project-Related Traffic
			Existing	Related Projects	Ambient Growth	Project	Total Growth	
I-10 west of I-710	AM Peak Hour	EB	3,122	113	650	-16	747	-2.10%
		WB	5,201	66	1,082	-5	1,143	-0.40%
	PM Peak Hour	EB	5,025	107	1,046	-5	1,148	-0.40%
		WB	3,387	139	705	-12	832	-1.40%
I-10 east of I-710	AM Peak Hour	EB	4,889	83	1,017	-3	1,097	-0.30%
		WB	4,826	90	1,004	-10	1,084	-0.90%
	PM Peak Hour	EB	6,359	119	1,323	-8	1,434	-0.60%
		WB	3,458	119	720	-4	835	-0.50%
I-710 north of I-10	AM Peak Hour	NB	1,934	57	402	-34	425	-8.00%
		SB	2,791	21	581	-6	596	-1.00%
	PM Peak Hour	NB	2,427	61	505	-12	554	-2.20%
		SB	1,720	71	358	-17	412	-4.10%
I-710 south of I-10	AM Peak Hour	NB	5,415	96	1,127	-25	1,198	-2.10%
		SB	7,815	61	1,626	-7	1,680	-0.40%
	PM Peak Hour	NB	6,797	96	1,414	-9	1,501	-0.60%
		SB	4,816	123	1,002	-19	1,106	-1.70%

Chapter 9
Unsignalized Intersection Analysis

As described in Chapter 2, the three unsignalized study intersections were analyzed using the HCM methodology to determine the overall intersection delay. Based on *Traffic Study Policies and Procedures,* if an unsignalized intersection is projected to operate at LOS E or F under Future with Project Conditions, a signal warrant analysis should be conducted to evaluate the potential installation of a new traffic signal. The signal warrant analysis, if necessary, would follow the guidelines set forth in *Manual of Policies and Procedures* (LADOT, 2014) and the *California Manual on Uniform Traffic Control Devices* (Caltrans, 2014). For completeness, this chapter examines both Existing with Project Conditions and Future with Project Conditions.

UNSIGNALIZED INTERSECTIONS LEVELS OF SERVICE

Tables 7 and 8 summarize the weekday morning and afternoon peak hour delay and corresponding LOS for the unsignalized intersections under Existing with Project Conditions and Future with Project Conditions, respectively. As shown in Tables 7 and 8, Intersection 4 (Campus Road & Circle Drive) is anticipated to operate at LOS E or F during at least one of the analyzed peak hours under both Existing with Project and Future with Project Conditions.

Intersection 8 (Paseo Rancho Castilla & Circle Drive) and Intersection 10 (Mariondale Avenue & Paseo Rancho Castilla) both operate at LOS C or better under both Existing and Future with Project Conditions, and therefore, neither of these locations are candidates for traffic signalization.

SIGNAL WARRANT ANALYSIS

A traffic signal warrant analysis was conducted for the intersection of Campus Road & Circle Drive to determine whether the projected volumes at the intersection meet the threshold for installing traffic signal control. The intersection was analyzed according to Warrant 3 (peak hour).

Based on the signal warrant analysis, the intersection of Campus Road & Circle Drive does not meet the signal warrant threshold and, therefore, is not eligible for signalization. The signal warrant worksheet is provided in Appendix D.

Chapter 10

Congestion Management Program Analysis

This chapter presents an analysis of the regional transportation facilities in the vicinity of the Project Site, in accordance with the procedures outlined in the CMP.

TRAFFIC IMPACT ANALYSIS (TIA) GUIDELINES

The CMP requires that TIAs be performed on three types of facilities:

- Arterial Intersections
- Mainline Freeway Segments
- The Public Transit System

The CMP identifies specific arterial and freeway mainline locations for analysis.

Arterial Monitoring Intersection TIA Guidelines

The CMP requires that a TIA be performed for all CMP arterial monitoring intersections where a project would add 50 or more trips during either the weekday AM or PM peak hours. A detailed analysis is not required if the project adds fewer than 50 trips to an arterial monitoring intersection. The CMP analysis uses the same CMA methodology as used in earlier chapters of this Traffic Study for City intersections to determine intersection V/C ratio and LOS. A significant impact requiring mitigation occurs if project traffic causes an incremental increase in intersection V/C ratio of 0.02 or greater to a facility projected to operate at LOS F (V/C > 1.00) after the addition of project traffic.

Mainline Freeway Monitoring Location TIA Guidelines

The CMP requires that a TIA be performed for all CMP mainline freeway monitoring locations where a project would add 150 or more trips (in either direction) during the weekday AM or PM peak hours. A detailed analysis is not required if the project adds fewer than 150 trips to a mainline freeway monitoring location (in either direction) during either the weekday AM or PM peak hour. The CMP analysis uses a demand-to-capacity (D/C) ratio to determine facility LOS based on capacity identified in Appendix A of the CMP. Similar to arterial monitoring intersections, a significant impact requiring mitigation occurs if project traffic causes an incremental increase in freeway segment D/C ratio of 0.02 or greater to a facility projected to operate at LOS F (D/C > 1.00) after the addition of project traffic.

Transit Impact Review Guidelines

The CMP requires that a transit system analysis be performed to determine whether a project would increase transit ridership beyond the current capacity of the transit system.

ARTERIAL MONITORING STATION ANALYSIS

The CMP identifies one arterial monitoring intersection within the Study Area at Fremont Avenue & Valley Boulevard. As shown in Table 6, the Project generates a net reduction in peak hour trips and would not add 50 or more trips during either the weekday morning or afternoon peak hours at the arterial monitoring intersection. Therefore, further analysis of the CMP arterial monitoring intersections is not required.

CMP FREEWAY ANALYSIS

The CMP freeway monitoring stations that will provide access to the Project site include:

- I-10 at East LA City Limit (1.75 miles southwest of the Project Site)
- I-10 at Atlantic Boulevard & Alhambra (1.75 miles east of the project Site

As shown in Table 6, the Project generates a net reduction in peak hour trips and would not add 150 trips in either direction during either peak hour to any of the CMP mainline freeway monitoring locations. Therefore, the Project's CMP freeway impacts are considered to be less than significant and no further analysis is required.

REGIONAL TRANSIT IMPACT ANALYSIS

Section B.8.4 of the CMP provides a methodology for estimating the number of transit trips expected to result from a proposed project based on the number of vehicle trips. This methodology assumes an average vehicle occupancy (AVO) factor of 1.4 in order to estimate the number of person trips to and from the Project and provides guidance regarding the percentage of Project person trips that may use public transit to travel to and from the Project Site depending on the mix of uses and proximity to public transit. As discussed in Chapter 4, the trip generation estimates shown in Table 6 indicate a 15% transit/walk adjustment was applied to account for non-auto transit modes (e.g., transit, bicycle, walk, etc.) For the purposes of this analysis, all non-automobile trips were conservatively assumed to travel via public transit.

As shown in Table 6, the Project is anticipated to generate a net reduction of 134 morning peak hour trips and a net reduction of 115 afternoon peak hour trips. The Project would not generate any new transit trips during either the morning or afternoon peak hour. Therefore, the Project is not anticipated to result in significant regional transit impacts.

Chapter 11

Site Access and Circulation

This chapter summarizes the site access and internal circulation for the Project. The access impact analysis relates to the provision of access to and from the Project site, which may include safety, operational, or capacity impacts.

PROPOSED SITE ACCESS AND CIRCULATION

The Project proposes to remove the existing driveway on the south side of Paseo Rancho Castilla that formerly provided access to the existing surface lot west of the I-710. In addition, the Project proposes new driveways on Paseo Rancho Castilla to provide access to the new surface parking lots serving the internal campus soccer facility and the major league soccer team facility. The Project's new parking structure primary access would be via Circle Drive, internal to the campus, with an additional access at the existing driveway at the intersection of Paseo Rancho Castilla and Lansdowne Avenue. The circulation aisle widths of the parking areas should be designed to allow adequate and safe circulation of vehicles without significant conflicts. The driveway would be designed based on California State University system standards.

While final design drawings for the Project's access have not been fully completed, the proposed driveway providing access to the new surface parking lots should be designed to allow full movements and operate without turning restrictions. The new driveways providing access to the soccer facilities' surface parking lots along Paseo Rancho Castilla can be operated as one unsignalized intersection with stop-controls on the driveway outbound directions. The Project driveways should provide adequate storage to stack vehicles on site without queuing into the public street and should provide adequate access to parking bays.

Chapter 12

Summary and Conclusions

This study was undertaken to analyze the potential traffic impacts of the Project on the local street system. The following summarizes the results of this analysis:

- The Project proposes construction of a new student housing complex including 1,500 beds, dining facilities and support services on the northeastern portion of the campus along Paseo Rancho Castilla, adjacent to I-710. This would shift 1,500 commuter students to dorm students. The dorm students would not be allowed to have cars on campus. The Project would also provide 100 new parking spaces in its parking garage. In addition, the Project will construct two soccer fields for intramural campus use and a soccer training facility for the private use of the major league soccer team. The Project is anticipated to be complete by 2021.

- The Project is anticipated to result in a net reduction of 134 vehicular trips during the morning peak hour and a net reduction of 115 trips during the afternoon peak hour.

- The Project traffic was added to the existing circulation system to develop the Existing with Project traffic conditions. Based on the significance criteria presented in the local city jurisdiction guidelines, the analysis found no significant traffic impacts at any of the study intersections under Existing with Project Conditions during either the morning or afternoon peak hours. Therefore, no mitigation measures are required under the Existing with Project Conditions.

- Future traffic conditions in the Study Area were forecast for the Project buildout year of 2021. Based on the significance criteria presented in the local city jurisdiction guidelines, the analysis found no significant traffic impacts at any of the study intersections under Future with Project (Year 2021) Conditions during either the morning or afternoon peak hours. Therefore, no mitigation measures are required under the Future with Project Conditions.

- Analysis of potential impacts on the regional transportation system conducted in accordance with CMP guidelines determined that the Project would not have a significant impact on the regional freeway, arterial street system or transit system.

- An analysis of potential Project impacts on Caltrans facilities was conducted that showed that the Project would not adversely affect any of the freeway mainline segments and would remove traffic from the freeway system.

- An analysis of VMT generated by the Project was conducted even though the VMT legislation is not yet in effect for the Project site. The analysis showed that the Project would result in a decrease in total VMT generated by the campus and a reduction in the VMT per capita after completion of the Project. Switching students from commuter students to on-campus dorm students is clearly consistent with the goals of Senate Bill 743. The Project gives students the opportunity to attend CSULA in a manner that results in a reduction of VMT. Even with the addition of 100 parking spaces and the construction of the soccer training facility for the major soccer league players, the Project still results in a reduction in VMT and in VMT per capita, decreasing from the existing 26.18 daily VMT for each of the 1,500 existing commuter students to 16.28 daily VMT per capita for the 1,500 dorm students, the additional parking spaces, and the 85 soccer facility players and staff. This reduction clearly meets the State of California initial goal discussion of targeting a 15% reduction in VMT per capita for new projects.

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Appendix A

Intersection Lane Configurations

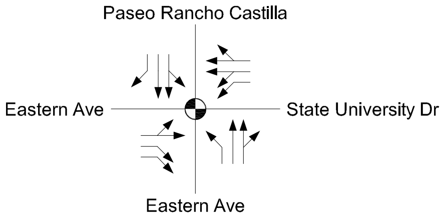
LEGEND

- ● Traffic Signal
- ● Stop Sign

EXISTING CONDITIONS (YEAR 2016)

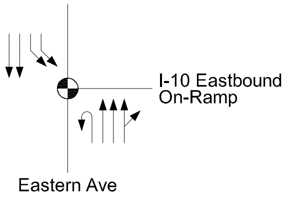
FUTURE CONDITIONS (YEAR 2021)

1. Paseo Rancho Castilla/ Eastern Avenue & Eastern Avenue/ State University Drive



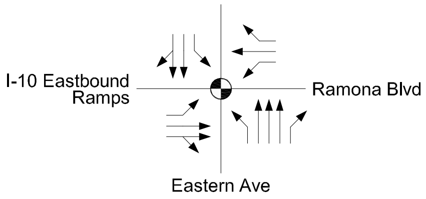
Same as Existing Conditions

2. Eastern Avenue & I-10 Eastbound On-Ramp



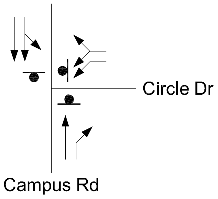
Same as Existing Conditions

3. Eastern Avenue & I-10 Eastbound Ramps/ Ramona Boulevard



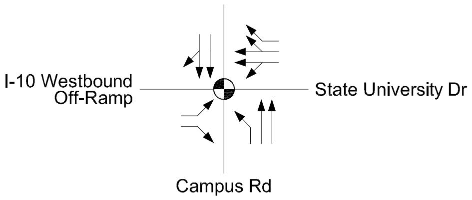
Same as Existing Conditions

4. Campus Road & Circle Drive



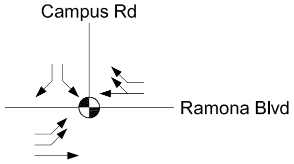
Same as Existing Conditions

5. Campus Road & I-10 Westbound Off-Ramp/ State University Drive



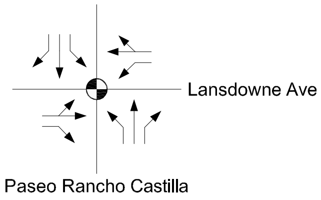
Same as Existing Conditions

6. Campus Road & Ramona Boulevard



Same as Existing Conditions

7. Paseo Rancho Castilla & Lansdowne Avenue



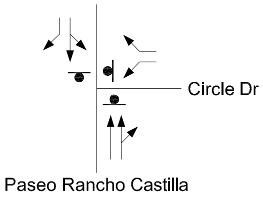
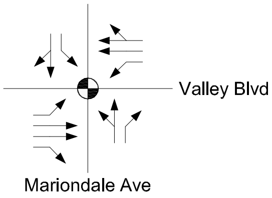
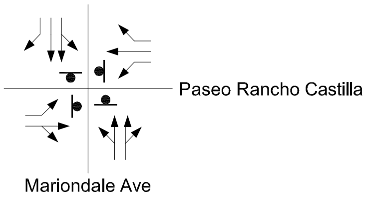
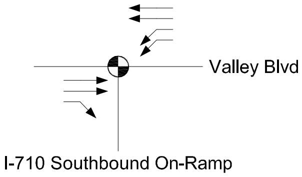
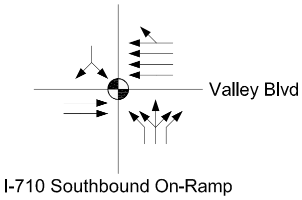
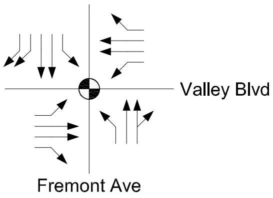
Same as Existing Conditions

INTERSECTION LANE CONFIGURATIONS

APPENDIX A

LEGEND

⊕ Traffic Signal
● Stop Sign

	EXISTING CONDITIONS (YEAR 2016)	FUTURE CONDITIONS (YEAR 2021)
8. Paseo Rancho Castilla & Circle Drive		Same as Existing Conditions
9. Mariondale Avenue & Valley Boulevard		Same as Existing Conditions
10. Mariondale Avenue & Paseo Rancho Castilla		Same as Existing Conditions
11. I-710 Southbound On-Ramp & Valley Boulevard		Same as Existing Conditions
12. I-710 Northbound Off-Ramp & Valley Boulevard		Same as Existing Conditions
13. Fremont Avenue & Valley Boulevard		Same as Existing Conditions

INTERSECTION LANE CONFIGURATIONS

APPENDIX A

Appendix B

Traffic Counts

ITM Peak Hour Summary

Prepared by:

NDS

National Data & Surveying Services

Paseo Rancho Castilla and State University Dr , Los Angeles

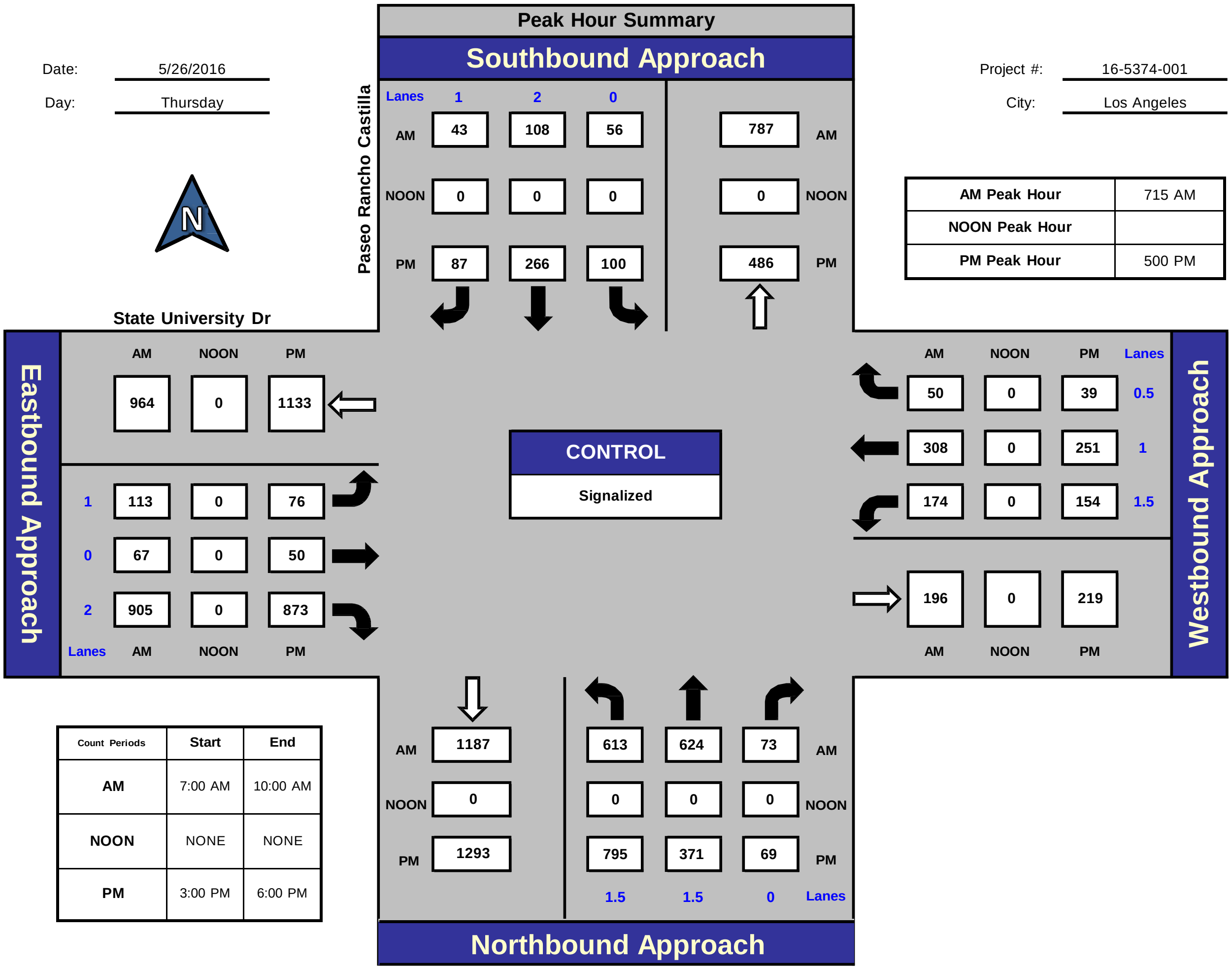
Date: 5/26/2016

Day: Thursday

Project #: 16-5374-001

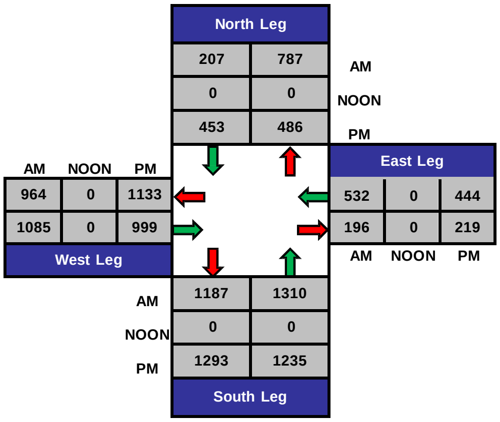
City: Los Angeles

AM Peak Hour	715 AM
NOON Peak Hour	
PM Peak Hour	500 PM

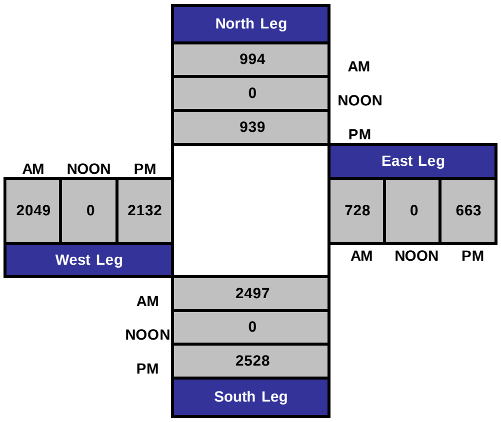


Count Periods	Start	End
AM	7:00 AM	10:00 AM
NOON	NONE	NONE
PM	3:00 PM	6:00 PM

Total Ins & Outs



Total Volume Per Leg



ITM Peak Hour Summary

Prepared by:

National Data & Surveying Services

Eastern Ave and I-10 EB On Ramp , Los Angeles

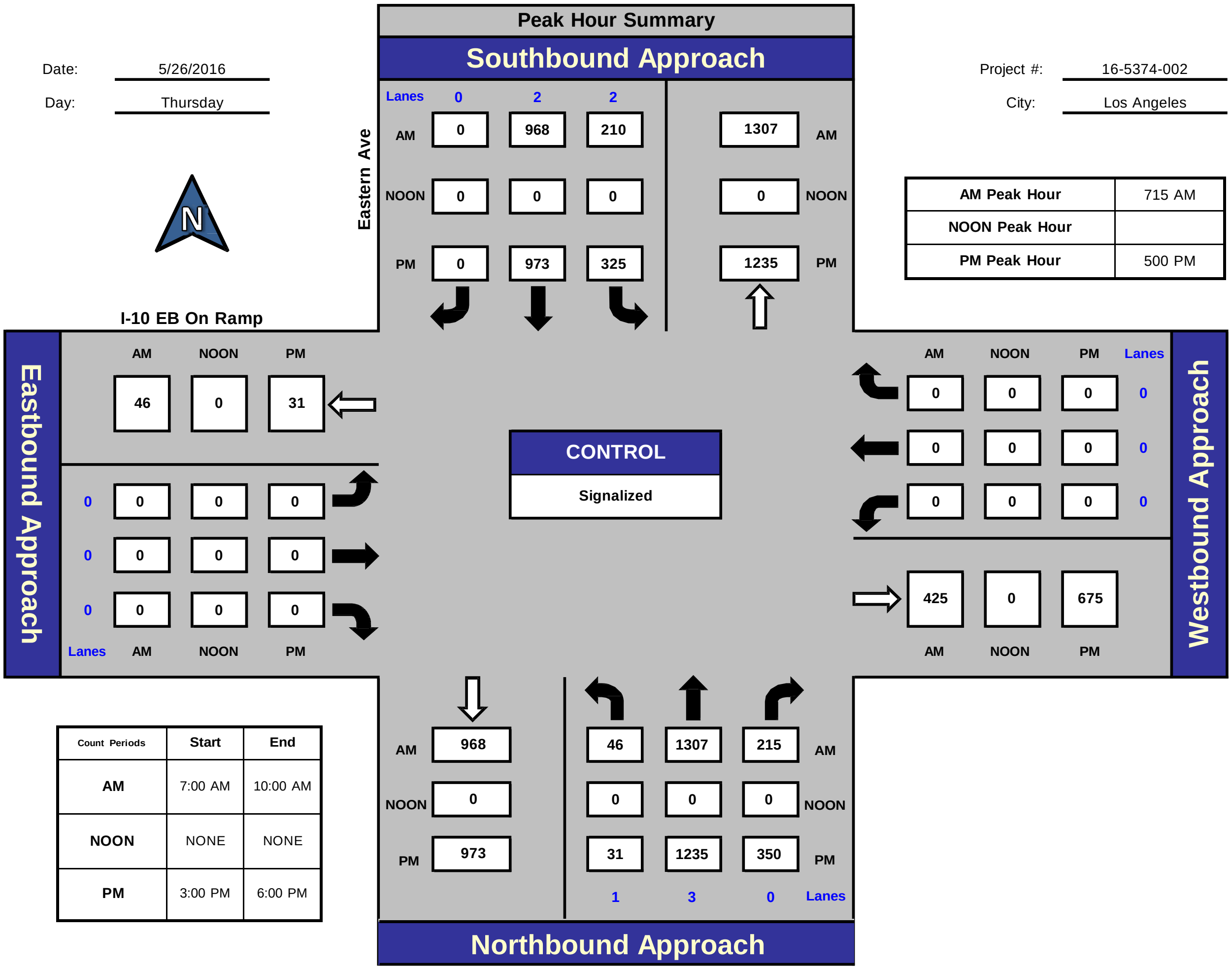
Date: 5/26/2016

Day: Thursday

Project #: 16-5374-002

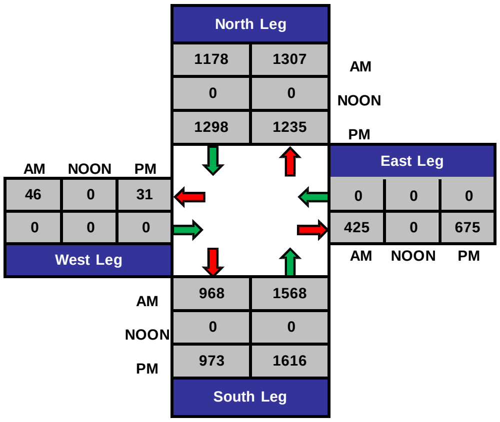
City: Los Angeles

AM Peak Hour	715 AM
NOON Peak Hour	
PM Peak Hour	500 PM

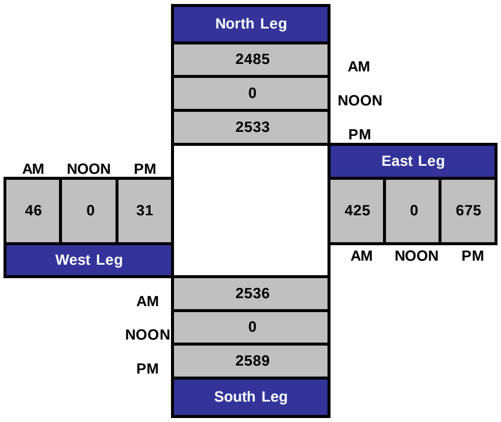


Count Periods	Start	End
AM	7:00 AM	10:00 AM
NOON	NONE	NONE
PM	3:00 PM	6:00 PM

Total Ins & Outs



Total Volume Per Leg



ITM Peak Hour Summary

Prepared by:

National Data & Surveying Services

Eastern Ave and Ramona Blvd , Los Angeles

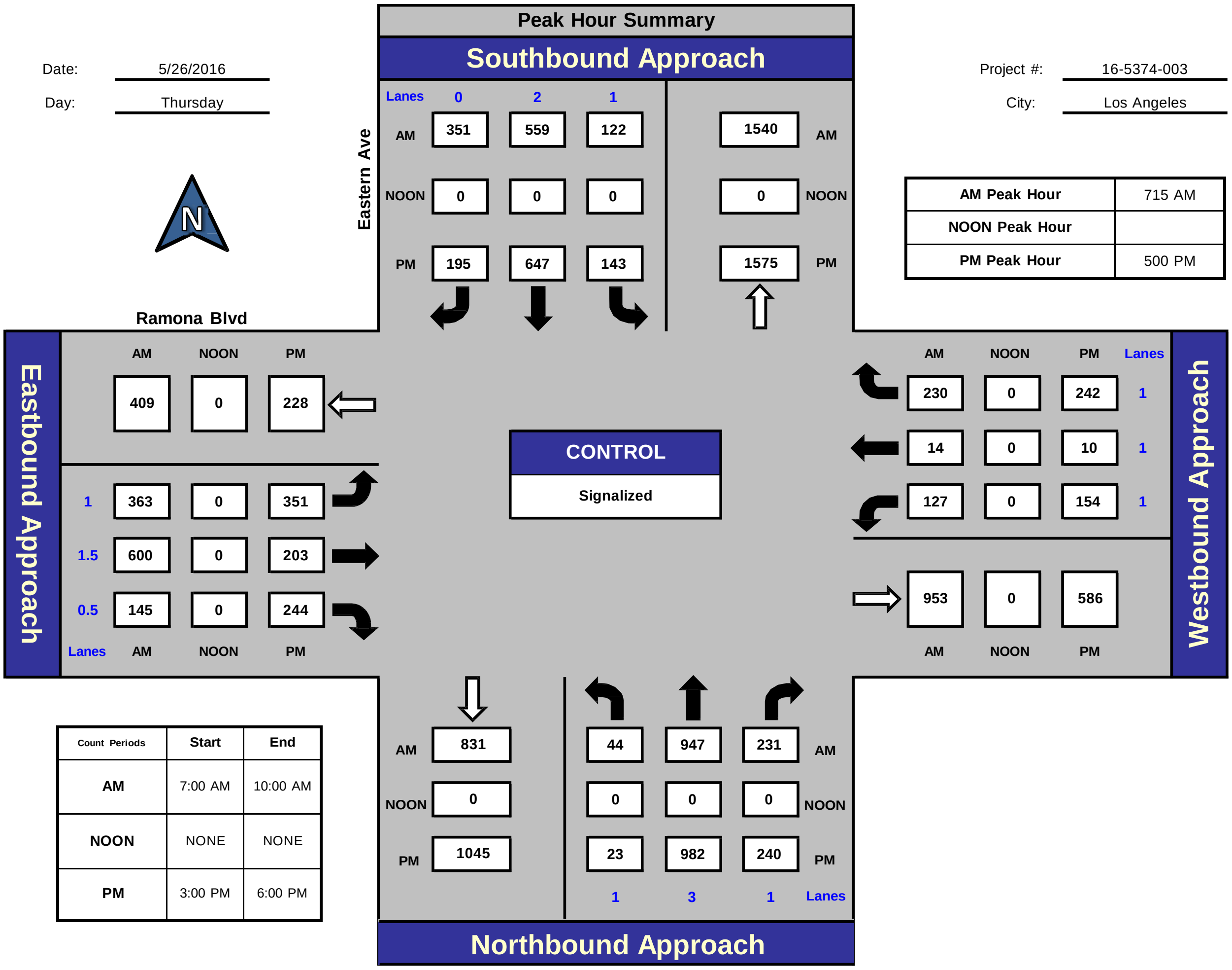
Date: 5/26/2016

Day: Thursday

Project #: 16-5374-003

City: Los Angeles

AM Peak Hour	715 AM
NOON Peak Hour	
PM Peak Hour	500 PM



Peak Hour Summary

Southbound Approach

Lanes	0	2	1		
AM	351	559	122	1540	AM
NOON	0	0	0	0	NOON
PM	195	647	143	1575	PM

Westbound Approach

AM	NOON	PM	Lanes
230	0	242	1
14	0	10	1
127	0	154	1
953	0	586	
AM	NOON	PM	

Eastbound Approach

	AM	NOON	PM
	409	0	228
1	363	0	351
1.5	600	0	203
0.5	145	0	244
Lanes	AM	NOON	PM

CONTROL

Signalized

Northbound Approach

AM	831	44	947	231	AM
NOON	0	0	0	0	NOON
PM	1045	23	982	240	PM
		1	3	1	Lanes

Count Periods	Start	End
AM	7:00 AM	10:00 AM
NOON	NONE	NONE
PM	3:00 PM	6:00 PM

Total Ins & Outs

North Leg

1032	1540	AM
0	0	NOON
985	1575	PM

West Leg

AM	NOON	PM
409	0	228
1108	0	798

East Leg

371	0	406
953	0	586
AM	NOON	PM

South Leg

AM	831	1222
NOON	0	0
PM	1045	1245

Total Volume Per Leg

North Leg

2572	AM
0	NOON
2560	PM

West Leg

AM	NOON	PM
1517	0	1026

East Leg

1324	0	992
AM	NOON	PM

South Leg

AM	2053
NOON	0
PM	2290

ITM Peak Hour Summary

Prepared by:

National Data & Surveying Services

Campus Rd and Circle Dr , Los Angeles

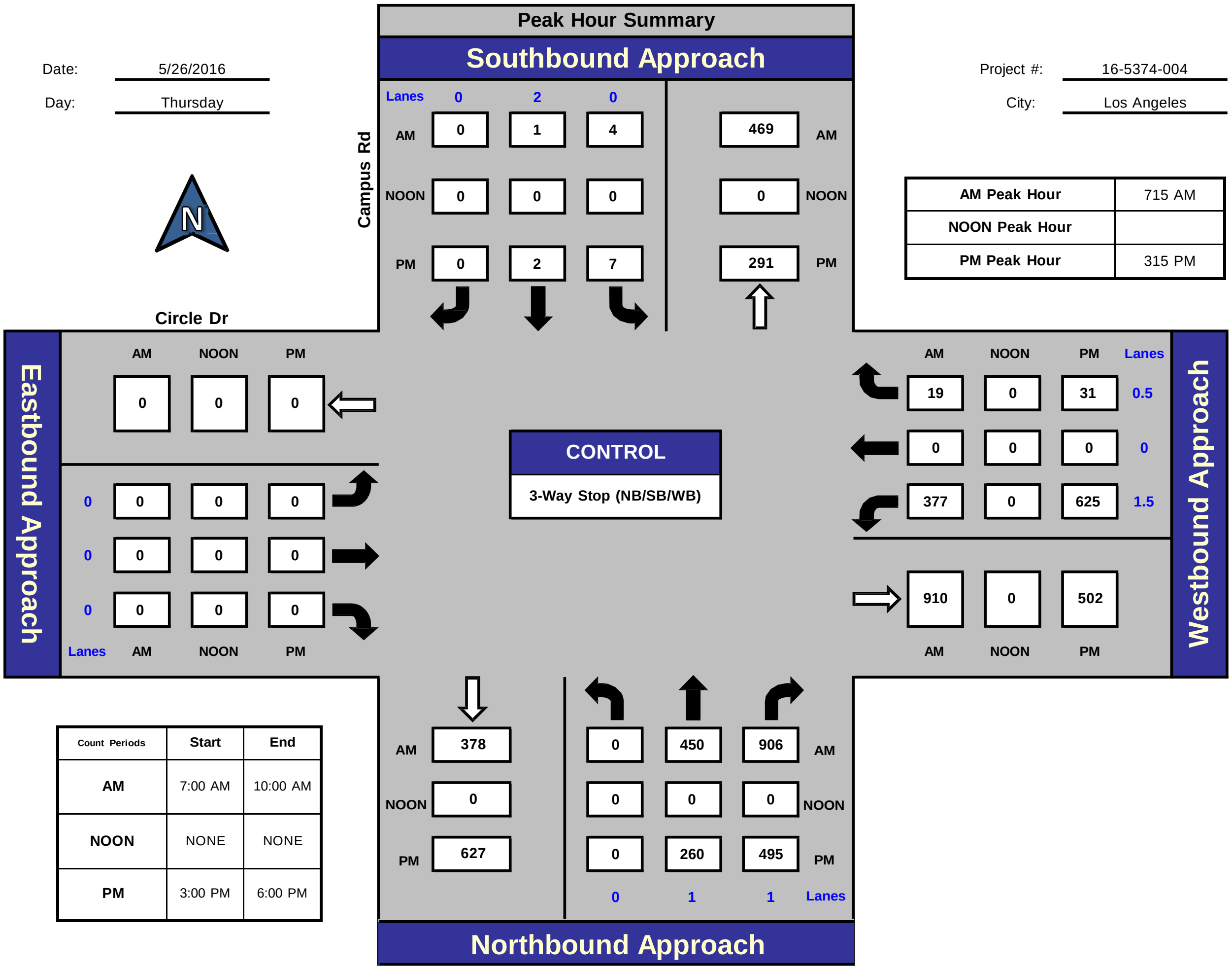
Date: 5/26/2016

Day: Thursday

Project #: 16-5374-004

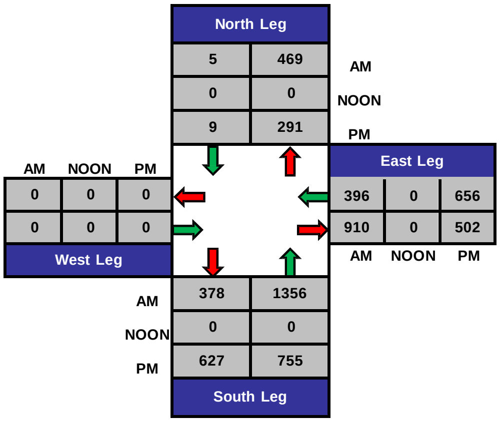
City: Los Angeles

AM Peak Hour	715 AM
NOON Peak Hour	
PM Peak Hour	315 PM

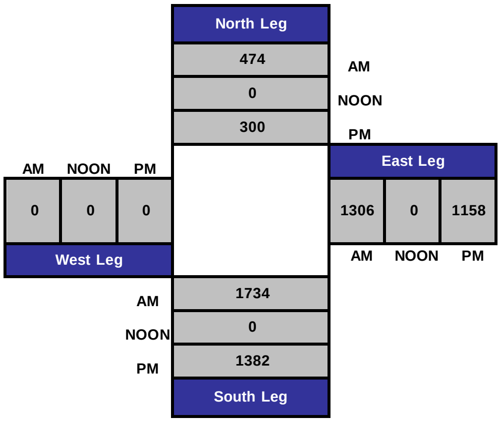


Count Periods	Start	End
AM	7:00 AM	10:00 AM
NOON	NONE	NONE
PM	3:00 PM	6:00 PM

Total Ins & Outs



Total Volume Per Leg



ITM Peak Hour Summary

Prepared by:

National Data & Surveying Services

Campus Rd and I-10 WB Off Ramp/State University Dr , Los Angeles

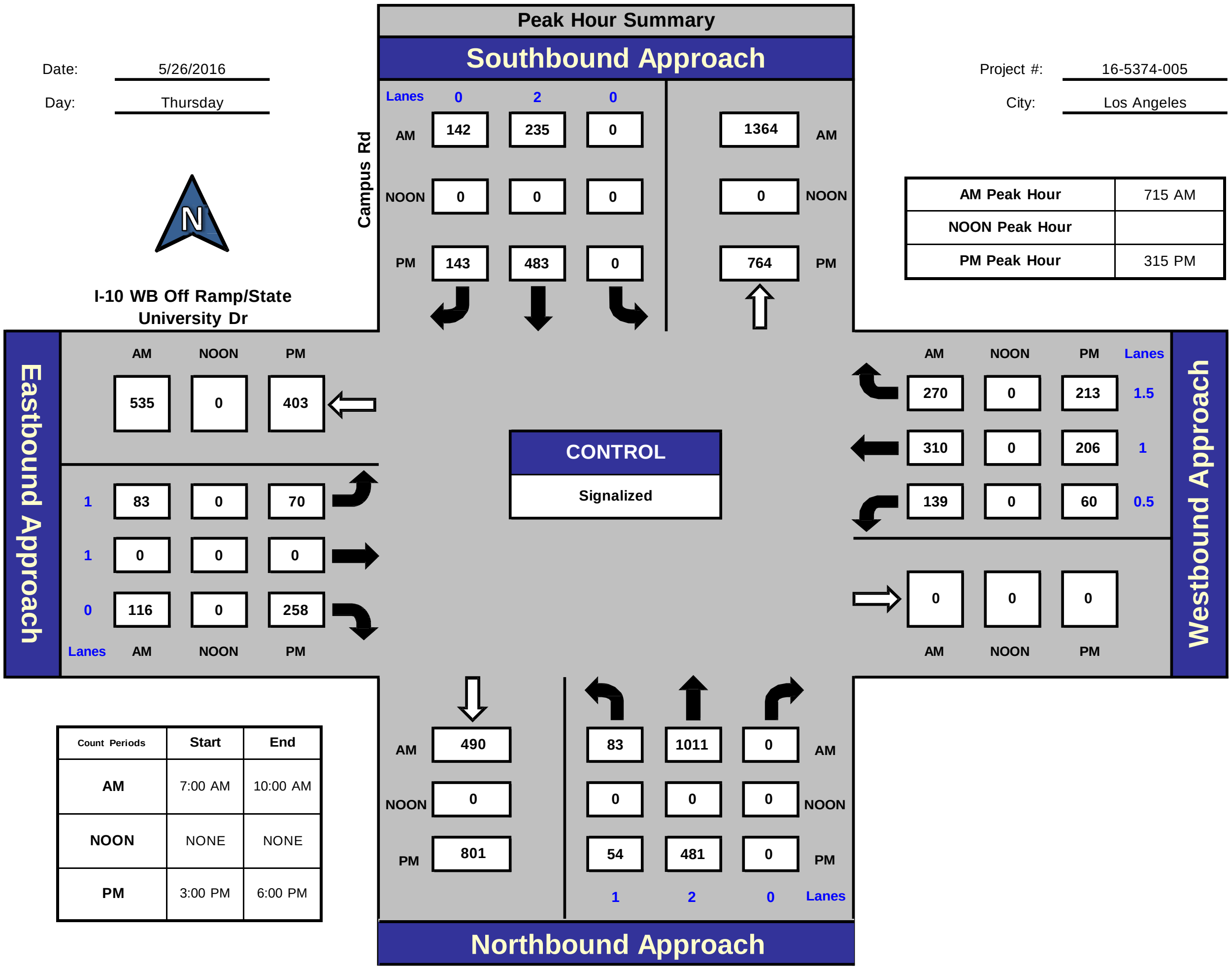
Date: 5/26/2016

Day: Thursday

Project #: 16-5374-005

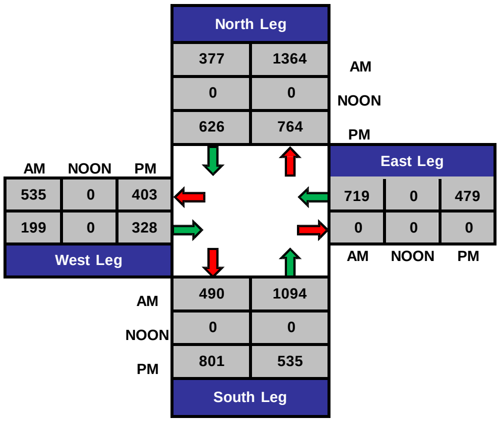
City: Los Angeles

AM Peak Hour	715 AM
NOON Peak Hour	
PM Peak Hour	315 PM

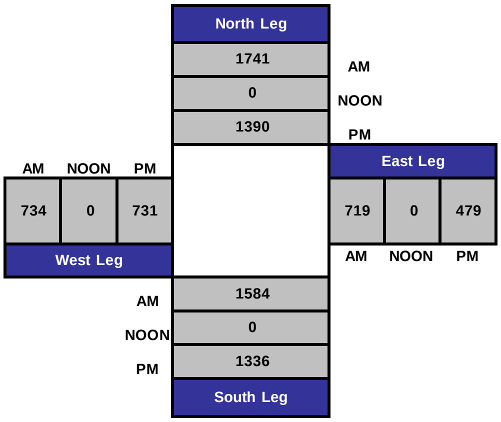


Count Periods	Start	End
AM	7:00 AM	10:00 AM
NOON	NONE	NONE
PM	3:00 PM	6:00 PM

Total Ins & Outs



Total Volume Per Leg



ITM Peak Hour Summary

Prepared by:

National Data & Surveying Services

Campus Rd and Ramona Blvd , Los Angeles

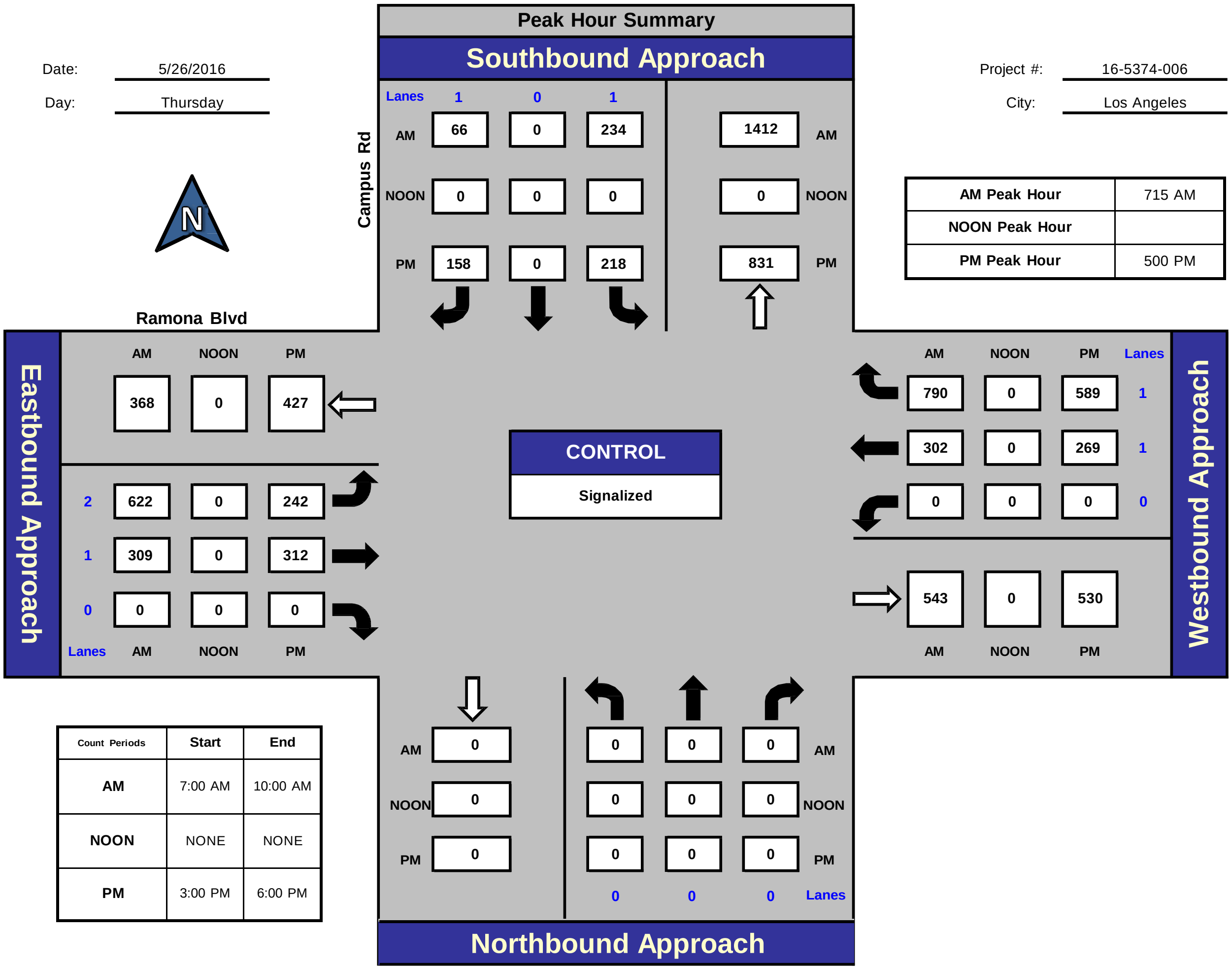
Date: 5/26/2016

Day: Thursday

Project #: 16-5374-006

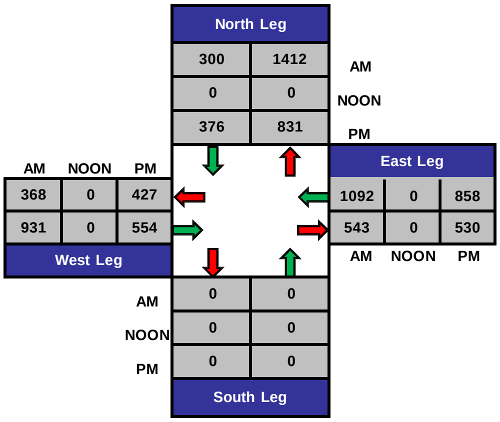
City: Los Angeles

AM Peak Hour	715 AM
NOON Peak Hour	
PM Peak Hour	500 PM

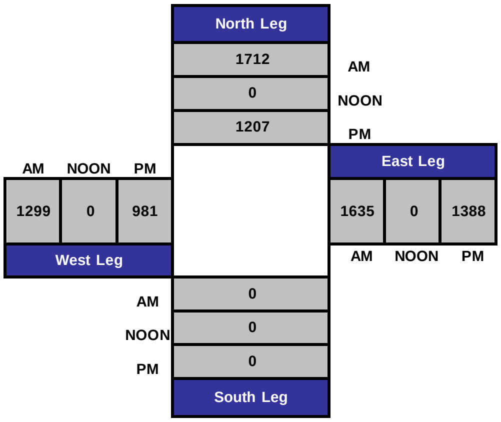


Count Periods	Start	End
AM	7:00 AM	10:00 AM
NOON	NONE	NONE
PM	3:00 PM	6:00 PM

Total Ins & Outs



Total Volume Per Leg



ITM Peak Hour Summary

Prepared by:

National Data & Surveying Services

Paseo Rancho Castilla and Lansdowne Ave , Los Angeles

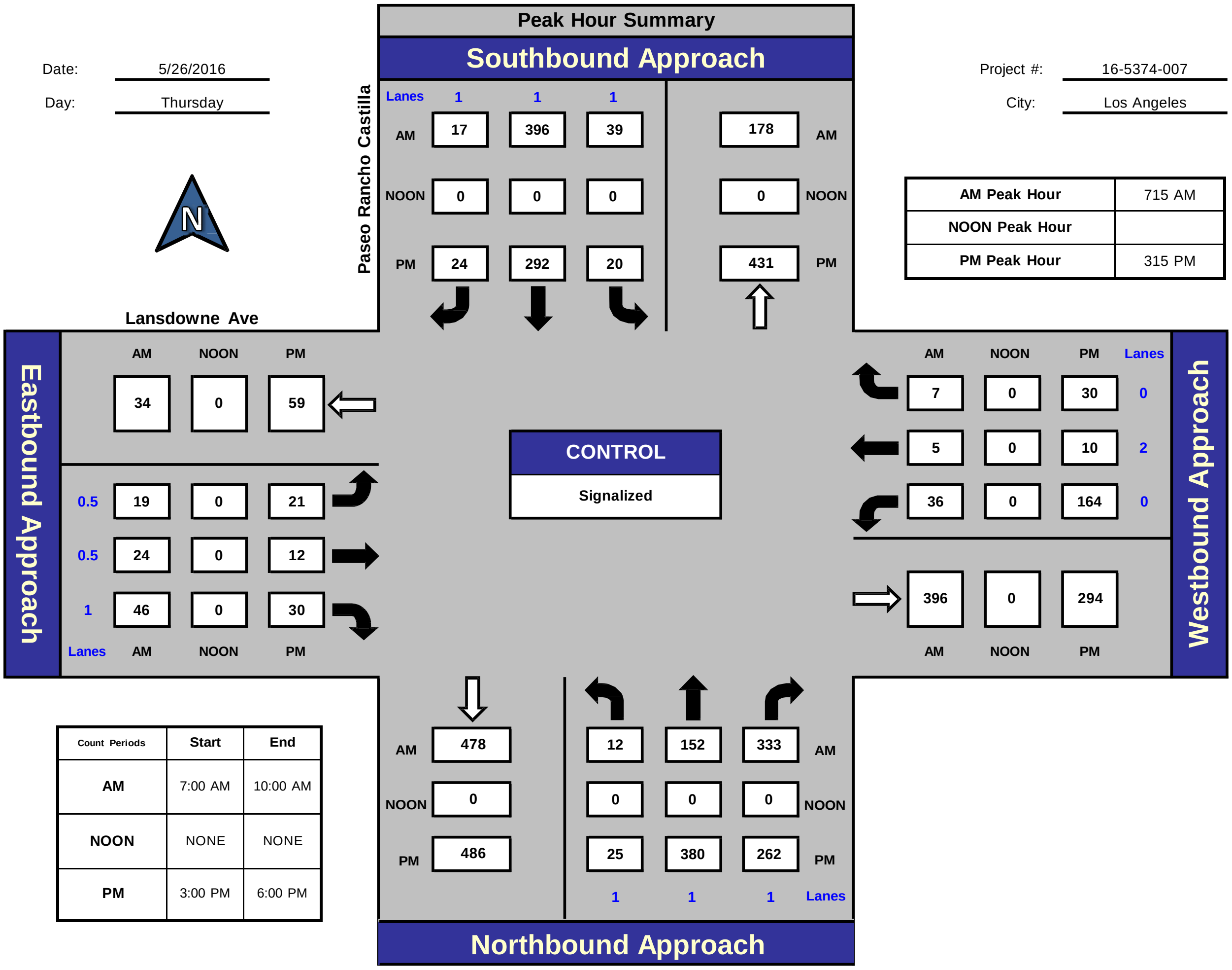
Date: 5/26/2016

Day: Thursday

Project #: 16-5374-007

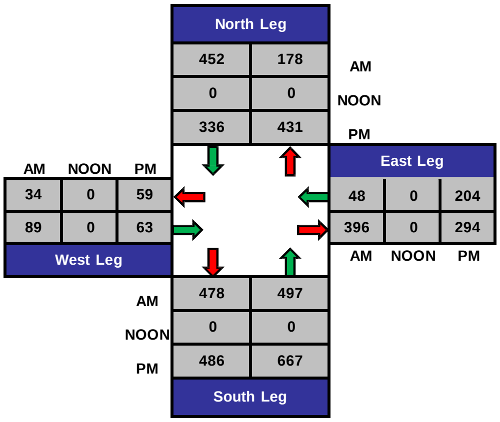
City: Los Angeles

AM Peak Hour	715 AM
NOON Peak Hour	
PM Peak Hour	315 PM

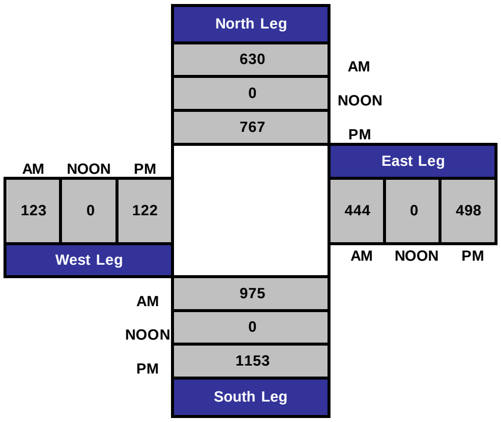


Count Periods	Start	End
AM	7:00 AM	10:00 AM
NOON	NONE	NONE
PM	3:00 PM	6:00 PM

Total Ins & Outs



Total Volume Per Leg



ITM Peak Hour Summary

Prepared by:

National Data & Surveying Services

Paseo Rancho Castilla and Circle Dr , Los Angeles

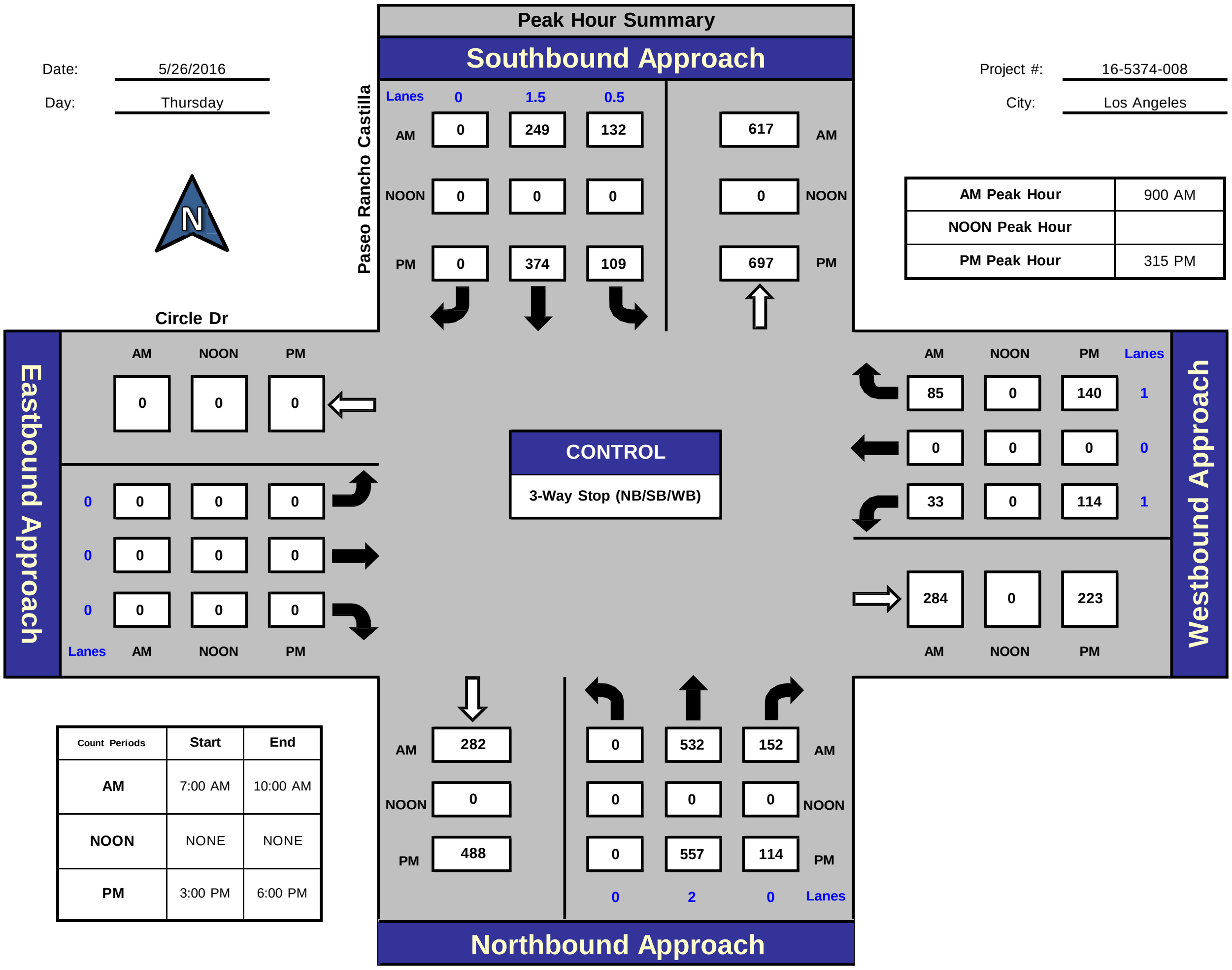
Date: 5/26/2016

Day: Thursday

Project #: 16-5374-008

City: Los Angeles

AM Peak Hour	900 AM
NOON Peak Hour	
PM Peak Hour	315 PM



Peak Hour Summary

Southbound Approach

Lanes	0	1.5	0.5	
AM	0	249	132	617
NOON	0	0	0	0
PM	0	374	109	697

Westbound Approach

	AM	NOON	PM	Lanes
	85	0	140	1
	0	0	0	0
	33	0	114	1
	284	0	223	

Eastbound Approach

Lanes	AM	NOON	PM
	0	0	0
0	0	0	0
0	0	0	0
0	0	0	0

CONTROL

3-Way Stop (NB/SB/WB)

Northbound Approach

AM	282	0	532	152
NOON	0	0	0	0
PM	488	0	557	114
Lanes		0	2	0

Count Periods	Start	End
AM	7:00 AM	10:00 AM
NOON	NONE	NONE
PM	3:00 PM	6:00 PM

Total Ins & Outs

North Leg

AM	381	617
NOON	0	0
PM	483	697

East Leg

AM	NOON	PM
118	0	254
284	0	223

West Leg

AM	NOON	PM
0	0	0
0	0	0

South Leg

AM	282	684
NOON	0	0
PM	488	671

Total Volume Per Leg

North Leg

AM	998
NOON	0
PM	1180

East Leg

AM	NOON	PM
402	0	477

West Leg

AM	NOON	PM
0	0	0

South Leg

AM	966
NOON	0
PM	1159

ITM Peak Hour Summary

Prepared by:

NDS

National Data & Surveying Services

Mariondale Ave and Valley Blvd , Los Angeles

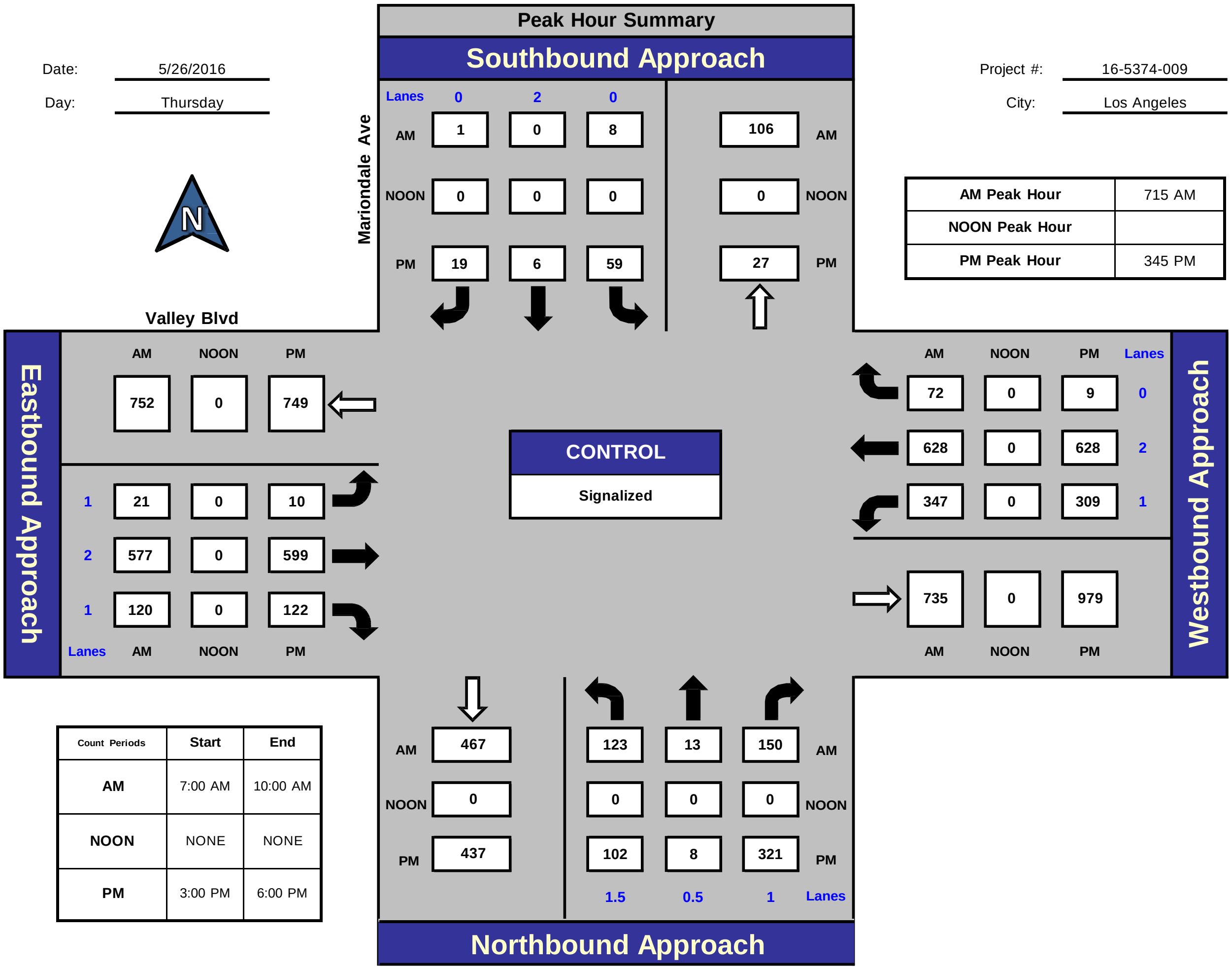
Date: 5/26/2016

Day: Thursday

Project #: 16-5374-009

City: Los Angeles

AM Peak Hour	715 AM
NOON Peak Hour	
PM Peak Hour	345 PM



Peak Hour Summary

Southbound Approach

Mariondale Ave

Lanes	0	2	0		
AM	1	0	8	106	AM
NOON	0	0	0	0	NOON
PM	19	6	59	27	PM

Valley Blvd

Eastbound Approach

	AM	NOON	PM
	752	0	749
1	21	0	10
2	577	0	599
1	120	0	122
Lanes	AM	NOON	PM

CONTROL

Signalized

Westbound Approach

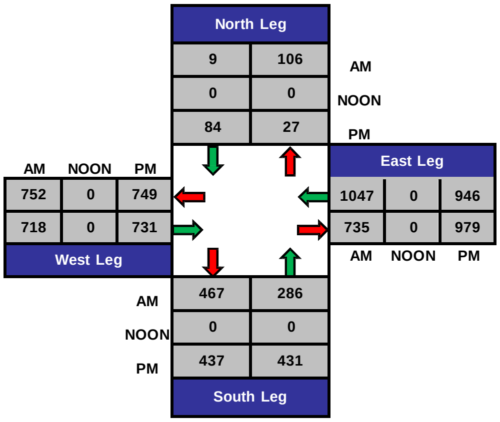
AM	NOON	PM	Lanes
72	0	9	0
628	0	628	2
347	0	309	1
735	0	979	
AM	NOON	PM	

Northbound Approach

AM	467	123	13	150	AM
NOON	0	0	0	0	NOON
PM	437	102	8	321	PM
		1.5	0.5	1	Lanes

Count Periods	Start	End
AM	7:00 AM	10:00 AM
NOON	NONE	NONE
PM	3:00 PM	6:00 PM

Total Ins & Outs



North Leg

9	106	AM
0	0	NOON
84	27	PM

West Leg

AM	NOON	PM
752	0	749
718	0	731

East Leg

1047	0	946
735	0	979
AM	NOON	PM

South Leg

AM	467	286
NOON	0	0
PM	437	431

Total Volume Per Leg

North Leg

115	AM
0	NOON
111	PM

West Leg

AM	NOON	PM
1470	0	1480

East Leg

1782	0	1925
AM	NOON	PM

South Leg

AM	753
NOON	0
PM	868

ITM Peak Hour Summary

Prepared by:

National Data & Surveying Services

Mariondale Ave and Paseo Rancho Castilla , Los Angeles

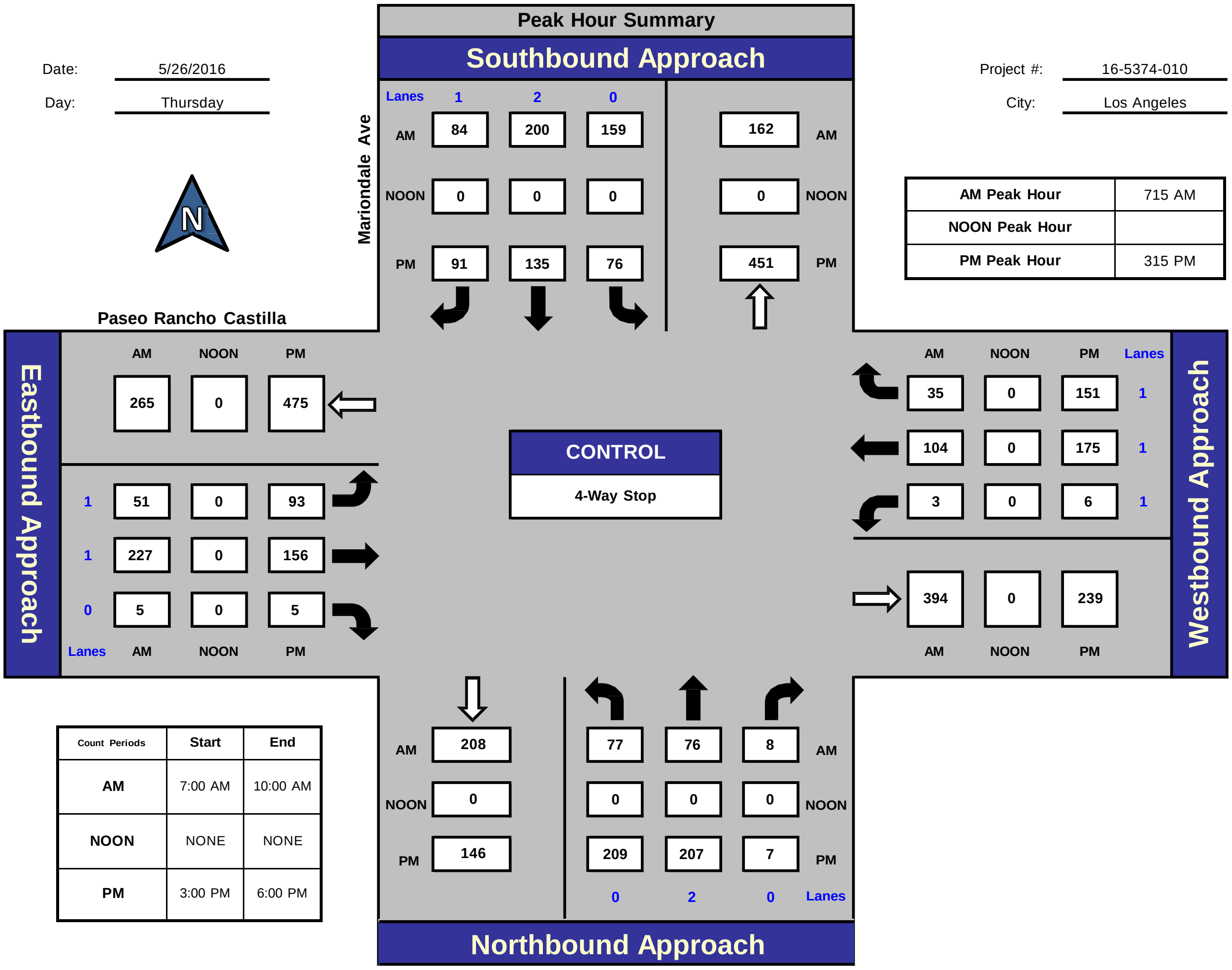
Date: 5/26/2016

Day: Thursday

Project #: 16-5374-010

City: Los Angeles

AM Peak Hour	715 AM
NOON Peak Hour	
PM Peak Hour	315 PM



Southbound Approach

Lanes	1	2	0		
AM	84	200	159	162	AM
NOON	0	0	0	0	NOON
PM	91	135	76	451	PM

Eastbound Approach

	AM	NOON	PM
	265	0	475
1	51	0	93
1	227	0	156
0	5	0	5
Lanes	AM	NOON	PM

Westbound Approach

AM	NOON	PM	Lanes
35	0	151	1
104	0	175	1
3	0	6	1
394	0	239	
AM	NOON	PM	

Northbound Approach

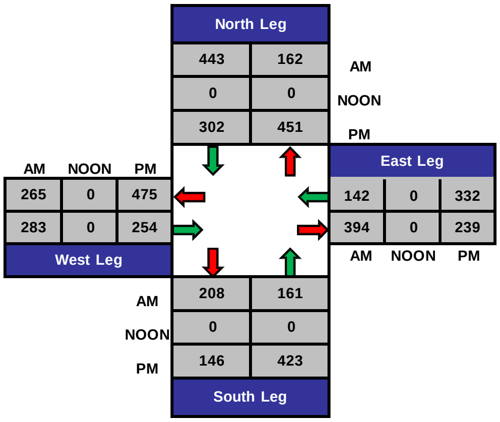
AM	208	77	76	8	AM
NOON	0	0	0	0	NOON
PM	146	209	207	7	PM
		0	2	0	Lanes

CONTROL

4-Way Stop

Count Periods	Start	End
AM	7:00 AM	10:00 AM
NOON	NONE	NONE
PM	3:00 PM	6:00 PM

Total Ins & Outs



North Leg

443	162	AM
0	0	NOON
302	451	PM

West Leg

AM	NOON	PM
265	0	475
283	0	254

East Leg

142	0	332
394	0	239
AM	NOON	PM

South Leg

AM	208	161
NOON	0	0
PM	146	423

Total Volume Per Leg

North Leg

605	AM
0	NOON
753	PM

West Leg

AM	NOON	PM
548	0	729

East Leg

536	0	571
AM	NOON	PM

South Leg

AM	369
NOON	0
PM	569

ITM Peak Hour Summary

Prepared by:

National Data & Surveying Services

I-710 SB and Valley Blvd , Los Angeles

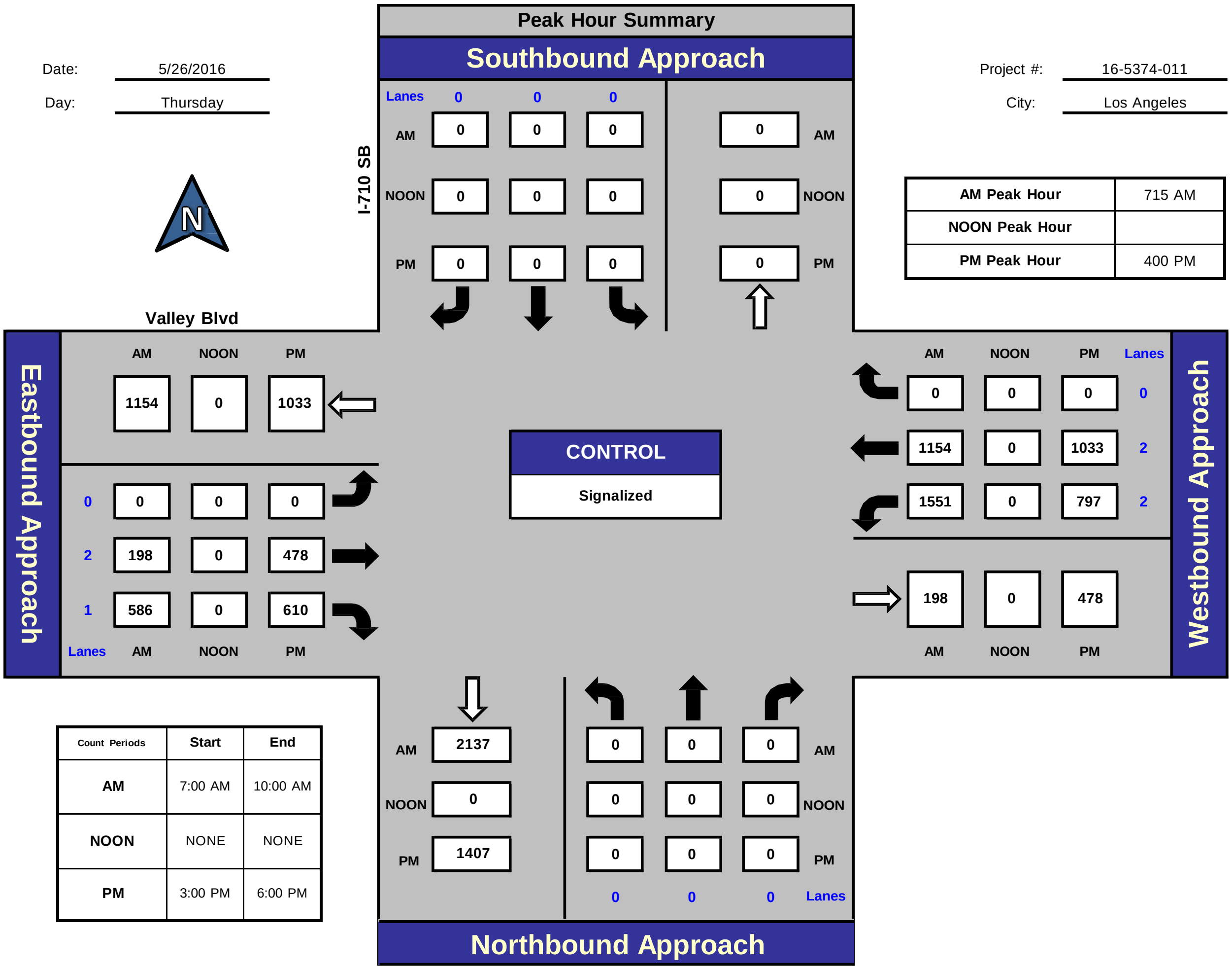
Date: 5/26/2016

Day: Thursday

Project #: 16-5374-011

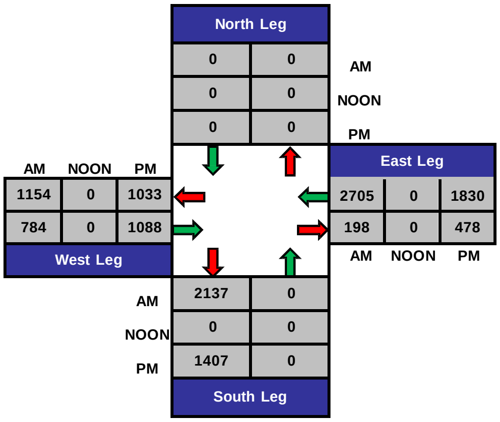
City: Los Angeles

AM Peak Hour	715 AM
NOON Peak Hour	
PM Peak Hour	400 PM

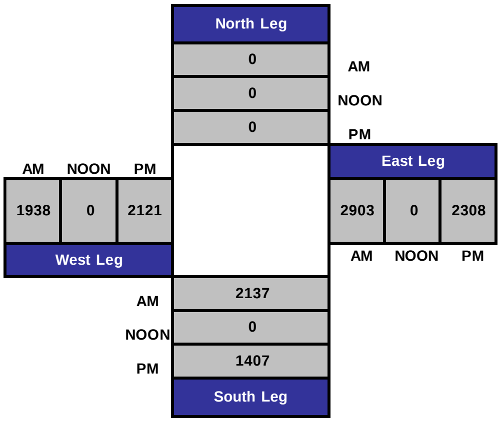


Count Periods	Start	End
AM	7:00 AM	10:00 AM
NOON	NONE	NONE
PM	3:00 PM	6:00 PM

Total Ins & Outs



Total Volume Per Leg



ITM Peak Hour Summary

Prepared by:

National Data & Surveying Services

I-710 NB and Valley Blvd , Los Angeles

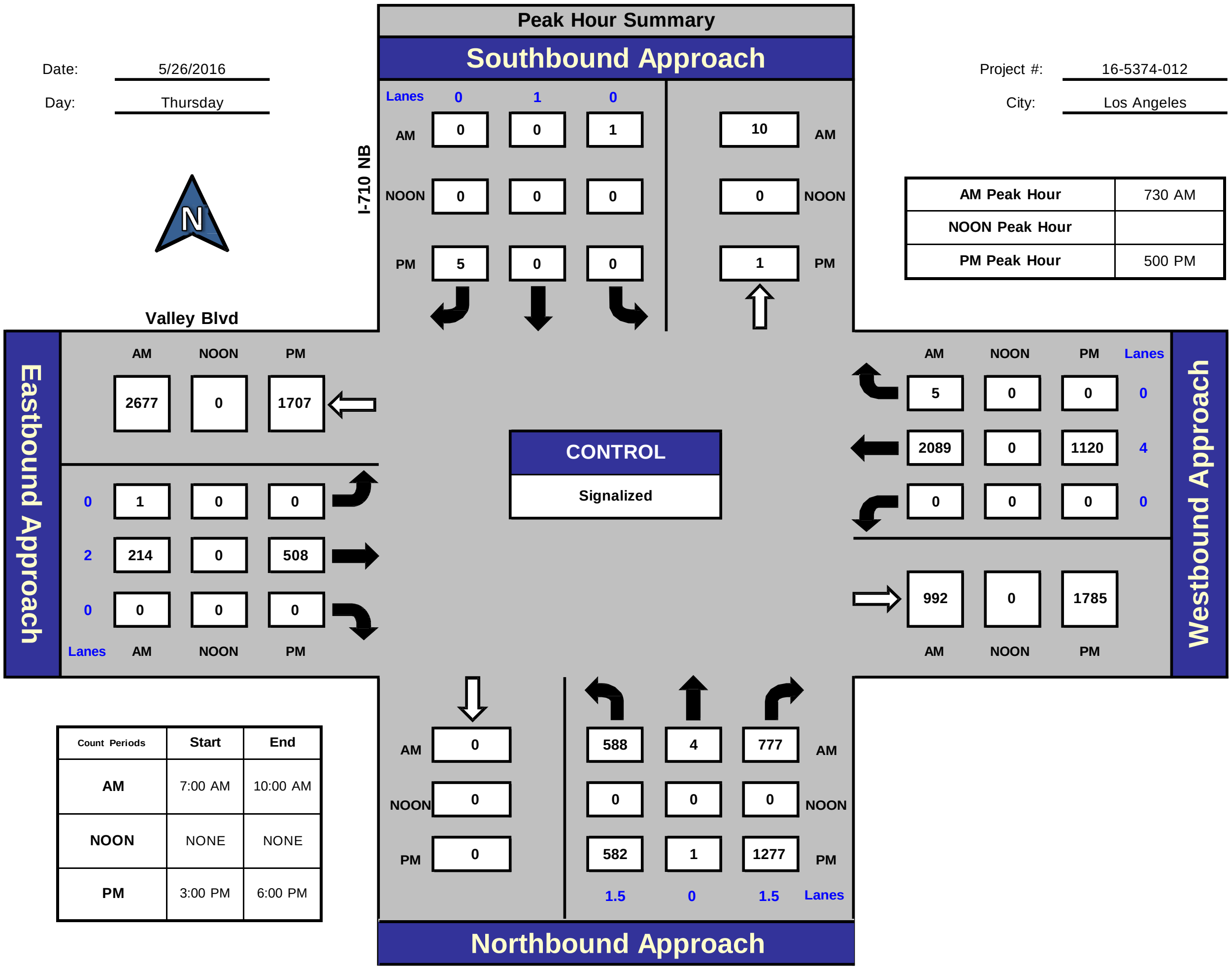
Date: 5/26/2016

Day: Thursday

Project #: 16-5374-012

City: Los Angeles

AM Peak Hour	730 AM
NOON Peak Hour	
PM Peak Hour	500 PM



Peak Hour Summary

I-710 NB

Valley Blvd

Southbound Approach

Lanes	0	1	0		
AM	0	0	1	10	AM
NOON	0	0	0	0	NOON
PM	5	0	0	1	PM

Eastbound Approach

	AM	NOON	PM
	2677	0	1707
0	1	0	0
2	214	0	508
0	0	0	0
Lanes	AM	NOON	PM

CONTROL

Signalized

Westbound Approach

AM	NOON	PM	Lanes
5	0	0	0
2089	0	1120	4
0	0	0	0
992	0	1785	
AM	NOON	PM	

Northbound Approach

AM	0	588	4	777	AM
NOON	0	0	0	0	NOON
PM	0	582	1	1277	PM
		1.5	0	1.5	Lanes

Count Periods	Start	End
AM	7:00 AM	10:00 AM
NOON	NONE	NONE
PM	3:00 PM	6:00 PM

Total Ins & Outs

North Leg

1	10	AM
0	0	NOON
5	1	PM

West Leg

AM	NOON	PM
2677	0	1707
215	0	508

East Leg

2094	0	1120
992	0	1785
AM	NOON	PM

South Leg

AM	0	1369
NOON	0	0
PM	0	1860

Total Volume Per Leg

North Leg

11	AM
0	NOON
6	PM

West Leg

AM	NOON	PM
2892	0	2215

East Leg

3086	0	2905
AM	NOON	PM

South Leg

AM	1369
NOON	0
PM	1860

ITM Peak Hour Summary

Prepared by:

National Data & Surveying Services

Fremont Ave and Valley Blvd , Los Angeles

Date: 5/26/2016

Day: Thursday

Project #: 16-5374-013

City: Los Angeles

AM Peak Hour	715 AM
NOON Peak Hour	
PM Peak Hour	500 PM

Peak Hour Summary

Southbound Approach

Fremont Ave

Lanes	2	2	1		
AM	1239	788	79	1642	AM
NOON	0	0	0	0	NOON
PM	739	975	185	1676	PM
	↲	↓	↳	⇧	

Valley Blvd

Eastbound Approach

AM	NOON	PM	
2115	0	1131	⇦

Lanes	AM	NOON	PM	
2	519	0	611	↱
2	418	0	962	→
1	21	0	43	↴

CONTROL

Signalized

Westbound Approach

	AM	NOON	PM	Lanes
↰	199	0	348	1
←	833	0	357	2
↙	58	0	109	1

	AM	NOON	PM
⇨	514	0	1168

Northbound Approach

	⇩		↰	↑	↱	
AM	867		43	924	17	AM
NOON	0		0	0	0	NOON
PM	1127		35	717	21	PM
			1	2	0	Lanes

Count Periods	Start	End
AM	7:00 AM	10:00 AM
NOON	NONE	NONE
PM	3:00 PM	6:00 PM

Total Ins & Outs

North Leg

2106	1642	AM
0	0	NOON
1899	1676	PM

West Leg

AM	NOON	PM
2115	0	1131
958	0	1616

East Leg

AM	NOON	PM
1090	0	814
514	0	1168

South Leg

AM	867	984
NOON	0	0
PM	1127	773

Total Volume Per Leg

North Leg

3748	AM
0	NOON
3575	PM

West Leg

AM	NOON	PM
3073	0	2747

East Leg

AM	NOON	PM
1604	0	1982

South Leg

AM	1851
NOON	0
PM	1900

Appendix C

Intersection Level of Service Worksheets

Level of Service Worksheet
(Circular 212 Method)

I/S #:	North-South Street:	Paseo Rancho Castilla/Eastern Ave	Year of Count:	2016	Ambient Growth: (%):	1	Conducted by:	GTC	Date:	12/1/2016
1	East-West Street:	Eastern Ave/State University Dr	Projection Year:	2021	Peak Hour:	AM	Reviewed by:		Project:	ULA Student Housing Proj e

	EXISTING CONDITION				EXISTING PLUS PROJECT				FUTURE CONDITION W/O PROJECT				FUTURE CONDITION W/ PROJECT				FUTURE W/ PROJECT W/ MITIGATION			
No. of Phases				4				4				4				4				4
Opposed Ø'ing: N/S-1, E/W-2 or Both-3?				3				3				3				3				3
Right Turns: FREE-1, NRTOR-2 or OLA-3?	NB--	0	SB--	0	NB--	0	SB--	0	NB--	0	SB--	0	NB--	0	SB--	0	NB--	0	SB--	0
	EB--	3	WB--	0	EB--	3	WB--	0	EB--	3	WB--	0	EB--	3	WB--	0	EB--	3	WB--	0
ATSAC-1 or ATSAC+ATCS-2?				2				2				2				2				2
Override Capacity				0				0				0				0				0

	MOVEMENT	EXISTING CONDITION			EXISTING PLUS PROJECT			FUTURE CONDITION W/O PROJECT				FUTURE CONDITION W/ PROJECT				FUTURE W/ PROJECT W/ MITIGATION			
		Volume	No. of Lanes	Lane Volume	Project Traffic	Total Volume	Lane Volume	Added Volume	Total Volume	No. of Lanes	Lane Volume	Added Volume	Total Volume	No. of Lanes	Lane Volume	Added Volume	Total Volume	No. of Lanes	Lane Volume
NORTHBOUND	Left	613	1	613	-2	611	611	143	787	1	787	-2	785	1	785	0	785	1	785
	Left-Through		0							0				0				0	
	Through	624	1	349	-22	602	338	0	656	1	367	-22	634	1	356	0	634	1	356
	Through-Right		1							1				1				1	
	Right	73	0	73	0	73	73	0	77	0	77	0	77	0	77	0	77	0	77
	Left-Through-Right		0							0				0				0	
	Left-Right		0							0				0				0	
SOUTHBOUND	Left	56	0	56	-1	55	55	0	59	0	59	-1	58	0	58	0	58	0	58
	Left-Through		1							1				1				1	
	Through	108	1	108	-3	105	105	0	114	1	114	-3	111	1	111	0	111	1	111
	Through-Right		0							0				0				0	
	Right	43	1	0	0	43	0	0	45	1	0	0	45	1	0	0	45	1	0
	Left-Through-Right		0							0				0				0	
	Left-Right		0							0				0				0	
EASTBOUND	Left	113	0	113	0	113	113	0	119	0	119	0	119	0	119	0	119	0	119
	Left-Through		1							1				1				1	
	Through	67	0	180	0	67	180	0	70	0	189	0	70	0	189	0	70	0	189
	Through-Right		0							0				0				0	
	Right	905	2	0	-2	903	0	116	1067	2	0	-2	1065	2	0	0	1065	2	0
	Left-Through-Right		0							0				0				0	
	Left-Right		0							0				0				0	
WESTBOUND	Left	174	1	96	0	174	96	0	183	1	101	0	183	1	101	0	183	1	101
	Left-Through		1							1				1				1	
	Through	308	0	358	0	308	358	41	365	0	418	0	365	0	418	0	365	0	418
	Through-Right		1							1				1				1	
	Right	50	0	50	0	50	50	0	53	0	53	0	53	0	53	0	53	0	53
	Left-Through-Right		0							0				0				0	
	Left-Right		0							0				0				0	

	EXISTING CONDITION		EXISTING PLUS PROJECT		FUTURE CONDITION W/O PROJECT		FUTURE CONDITION W/ PROJECT		FUTURE W/ PROJECT W/ MITIGATION	
CRITICAL VOLUMES	*North-South:*	721	*North-South:*	716	*North-South:*	901	*North-South:*	896	*North-South:*	896
	East-West:	538	*East-West:*	538	*East-West:*	607	*East-West:*	607	*East-West:*	607
	SUM:	1259	*SUM:*	1254	*SUM:*	1508	*SUM:*	1503	*SUM:*	1503
VOLUME/CAPACITY *(V/C)* RATIO:		0.916		0.912		1.097		1.093		1.093
V/C LESS ATSAC/ATCS ADJUSTMENT:		0.816		0.812		0.997		0.993		0.993
LEVEL OF SERVICE (LOS):		D		D		E		E		E

REMARKS:

Version: 1i Beta; 8/4/2011

PROJECT IMPACT

Change in *v/c* due to project:	-0.4	Δ*v/c* after mitigation:	-0.004
Significant impacted?	NO	Fully mitigated?	N/A

Level of Service Worksheet

(Circular 212 Method)

I/S #:	**North-South Street:** Eastern Ave	**Year of Count:** 2016	**Ambient Growth: (%):** 1	**Conducted by:** GTC	**Date:** 12/1/2016		
2	**East-West Street:** I-10 EB On-Ramp	**Projection Year:** 2021	**Peak Hour:** AM	**Reviewed by:**	**Project:** ULA Student Housing Proje		

	Existing Condition	Existing Plus Project	Future Condition W/O Project	Future Condition W/ Project	Future W/ Project W/ Mitigation
No. of Phases	2	2	2	2	2
Opposed Ø'ing: N/S-1, E/W-2 or Both-3?	0	0	0	0	0
Right Turns: FREE-1, NRTOR-2 or OLA-3?	NB-- 0 SB-- 0 EB-- 0 WB-- 0	NB-- 0 SB-- 0 EB-- 0 WB-- 0	NB-- 0 SB-- 0 EB-- 0 WB-- 0	NB-- 0 SB-- 0 EB-- 0 WB-- 0	NB-- 0 SB-- 0 EB-- 0 WB-- 0
ATSAC-1 or ATSAC+ATCS-2?	2	2	2	2	2
Override Capacity	0	0	0	0	0

	MOVEMENT	EXISTING CONDITION			EXISTING PLUS PROJECT			FUTURE CONDITION W/O PROJECT				FUTURE CONDITION W/ PROJECT				FUTURE W/ PROJECT W/ MITIGATION			
		Volume	No. of Lanes	Lane Volume	Project Traffic	Total Volume	Lane Volume	Added Volume	Total Volume	No. of Lanes	Lane Volume	Added Volume	Total Volume	No. of Lanes	Lane Volume	Added Volume	Total Volume	No. of Lanes	Lane Volume
NORTHBOUND	Left	46	1	46	0	46	46	0	48	1	48	0	48	1	48	0	48	1	48
	Left-Through		0							0				0				0	
	Through	1307	2	507	-24	1283	499	143	1517	2	581	-24	1493	2	573	0	1493	2	573
	Through-Right		1							1				1				1	
	Right	215	0	215	-1	214	214	0	226	0	226	-1	225	0	225	0	225	0	225
	Left-Through-Right		0							0				0				0	
	Left-Right		0							0				0				0	
SOUTHBOUND	Left	210	2	116	0	210	116	21	242	2	133	0	242	2	133	0	242	2	133
	Left-Through		0							0				0				0	
	Through	968	2	484	-5	963	482	95	1112	2	556	-5	1107	2	554	0	1107	2	554
	Through-Right		0							0				0				0	
	Right	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
	Left-Through-Right		0							0				0				0	
	Left-Right		0							0				0				0	
EASTBOUND	Left	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
	Left-Through		0							0				0				0	
	Through	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
	Through-Right		0							0				0				0	
	Right	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
	Left-Through-Right		0							0				0				0	
	Left-Right		0							0				0				0	
WESTBOUND	Left	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
	Left-Through		0							0				0				0	
	Through	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
	Through-Right		0							0				0				0	
	Right	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
	Left-Through-Right		0							0				0				0	
	Left-Right		0							0				0				0	

	Existing Condition	Existing Plus Project	Future Condition W/O Project	Future Condition W/ Project	Future W/ Project W/ Mitigation
CRITICAL VOLUMES — *North-South:*	623	615	714	706	706
East-West:	0	0	0	0	0
SUM:	623	615	714	706	706
VOLUME/CAPACITY *(V/C)* RATIO:	0.415	0.410	0.476	0.471	0.471
V/C LESS ATSAC/ATCS ADJUSTMENT:	0.315	0.310	0.376	0.371	0.371
LEVEL OF SERVICE (LOS):	A	A	A	A	A

REMARKS:

Version: 1i Beta; 8/4/2011

PROJECT IMPACT

Change in *v/c* due to project:	-0.5	Δ*v/c* after mitigation:	-0.005
Significant impacted?	NO	Fully mitigated?	N/A

Level of Service Worksheet

(Circular 212 Method)

I/S #:	**North-South Street:**	Eastern Ave	**Year of Count:**	2016	**Ambient Growth: (%):**	1	**Conducted by:**	GTC	**Date:**	12/1/2016
3	**East-West Street:**	I-10 EB Ramps/Ramona Blvd	**Projection Year:**	2021	**Peak Hour:**	AM	**Reviewed by:**		**Project:**	ULA Student Housing Proj e

No. of Phases					2					2					2					2					2
Opposed Ø'ing: N/S-1, E/W-2 or Both-3?					0					0					0					0					0
Right Turns: FREE-1, NRTOR-2 or OLA-3?	*NB--*	0	*SB--*	0		*NB--*	0	*SB--*	0		*NB--*	0	*SB--*	0		*NB--*	0	*SB--*	0		*NB--*	0	*SB--*	0
	EB--	0	*WB--*	0		*EB--*	0	*WB--*	0		*EB--*	0	*WB--*	0		*EB--*	0	*WB--*	0		*EB--*	0	*WB--*	0
ATSAC-1 or ATSAC+ATCS-2?					2					2					2					2					2
Override Capacity					0					0					0					0					0

MOVEMENT		EXISTING CONDITION			EXISTING PLUS PROJECT			FUTURE CONDITION W/O PROJECT				FUTURE CONDITION W/ PROJECT				FUTURE W/ PROJECT W/ MITIGATION			
		Volume	No. of Lanes	Lane Volume	Project Traffic	Total Volume	Lane Volume	Added Volume	Total Volume	No. of Lanes	Lane Volume	Added Volume	Total Volume	No. of Lanes	Lane Volume	Added Volume	Total Volume	No. of Lanes	Lane Volume
NORTHBOUND	Left	44	1	**44**	0	44	**44**	0	46	1	**46**	0	46	1	**46**	0	46	1	**46**
	Left-Through		0							0				0				0	
	Through	947	3	316	-16	931	310	56	1051	3	350	-16	1035	3	345	0	1035	3	345
	Through-Right		0							0				0				0	
	Right	231	1	168	-5	226	164	0	243	1	177	-5	238	1	173	0	238	1	173
	Left-Through-Right		0							0				0				0	
	Left-Right		0							0				0				0	
SOUTHBOUND	Left	122	1	122	-1	121	121	37	165	1	165	-1	164	1	164	0	164	1	164
	Left-Through		0							0				0				0	
	Through	559	1	**455**	-3	556	**453**	37	625	1	**508**	-3	622	1	**506**	0	622	1	**506**
	Through-Right		1							1				1				1	
	Right	351	0	351	-1	350	350	21	390	0	390	-1	389	0	389	0	389	0	389
	Left-Through-Right		0							0				0				0	
	Left-Right		0							0				0				0	
EASTBOUND	Left	363	1	**363**	-8	355	**355**	44	426	1	**426**	-8	418	1	**418**	0	418	1	**418**
	Left-Through		0							0				0				0	
	Through	600	1	373	-2	598	372	0	631	1	392	-2	629	1	391	0	629	1	391
	Through-Right		1							1				1				1	
	Right	145	0	145	0	145	145	0	152	0	152	0	152	0	152	0	152	0	152
	Left-Through-Right		0							0				0				0	
	Left-Right		0							0				0				0	
WESTBOUND	Left	127	1	127	-3	124	124	0	133	1	133	-3	130	1	130	0	130	1	130
	Left-Through		0							0				0				0	
	Through	14	1	14	0	14	14	0	15	1	15	0	15	1	15	0	15	1	15
	Through-Right		0							0				0				0	
	Right	230	1	**169**	-1	229	**169**	42	284	1	**202**	-1	283	1	**201**	0	283	1	**201**
	Left-Through-Right		0							0				0				0	
	Left-Right		0							0				0				0	
CRITICAL VOLUMES			*North-South:*	499		*North-South:*	497			*North-South:*	554			*North-South:*	552			*North-South:*	552
			East-West:	532		*East-West:*	524			*East-West:*	628			*East-West:*	619			*East-West:*	619
			SUM:	1031		*SUM:*	1021			*SUM:*	1182			*SUM:*	1171			*SUM:*	1171
VOLUME/CAPACITY *(V/C)* RATIO:				0.687			0.681				0.788				0.781				0.781
V/C LESS ATSAC/ATCS ADJUSTMENT:				0.587			0.581				0.688				0.681				0.681
LEVEL OF SERVICE (LOS):				A			A				B				B				B

REMARKS:

Version: 1i Beta; 8/4/2011

PROJECT IMPACT

Change in *v/c* due to project:	-0.007	**Δ*v/c* after mitigation:**	-0.007
Significant impacted?	NO	**Fully mitigated?**	N/A

Level of Service Worksheet

(Circular 212 Method)

I/S #:	North-South Street:	Campus Rd	Year of Count:	2016	Ambient Growth: (%):	1	Conducted by:	GTC	Date:	12/1/2016
5	East-West Street:	I-10 WB Off-Ramp/State University Dr	Projection Year:	2021	Peak Hour:	AM	Reviewed by:		Project:	ULA Student Housing Proje

No. of Phases				2				2				2				2				2
Opposed Ø'ing: N/S-1, E/W-2 or Both-3?				0				0				0				0				0
Right Turns: FREE-1, NRTOR-2 or OLA-3?	NB--	0	SB--	0	NB--	0	SB--	0	NB--	0	SB--	0	NB--	0	SB--	0	NB--	0	SB--	0
	EB--	0	WB--	0	EB--	0	WB--	0	EB--	0	WB--	0	EB--	0	WB--	0	EB--	0	WB--	0
ATSAC-1 or ATSAC+ATCS-2?				2				2				2				2				2
Override Capacity				0				0				0				0				0

	MOVEMENT	EXISTING CONDITION			EXISTING PLUS PROJECT			FUTURE CONDITION W/O PROJECT				FUTURE CONDITION W/ PROJECT				FUTURE W/ PROJECT W/ MITIGATION			
		Volume	No. of Lanes	Lane Volume	Project Traffic	Total Volume	Lane Volume	Added Volume	Total Volume	No. of Lanes	Lane Volume	Added Volume	Total Volume	No. of Lanes	Lane Volume	Added Volume	Total Volume	No. of Lanes	Lane Volume
NORTHBOUND	Left	83	1	83	0	83	83	0	87	1	87	0	87	1	87	0	87	1	87
	Left-Through		0							0				0				0	
	Through	1011	2	506	-11	1000	500	0	1063	2	532	-11	1052	2	526	0	1052	2	526
	Through-Right		0							0				0				0	
	Right	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
	Left-Through-Right		0							0				0				0	
	Left-Right		0							0				0				0	
SOUTHBOUND	Left	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
	Left-Through		0							0				0				0	
	Through	235	1	189	-10	225	184	0	247	1	198	-10	237	1	193	0	237	1	193
	Through-Right		1							1				1				1	
	Right	142	0	142	0	142	142	0	149	0	149	0	149	0	149	0	149	0	149
	Left-Through-Right		0							0				0				0	
	Left-Right		0							0				0				0	
EASTBOUND	Left	83	1	83	0	83	83	0	87	1	87	0	87	1	87	0	87	1	87
	Left-Through		0							0				0				0	
	Through	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
	Through-Right		0							0				0				0	
	Right	116	1	75	-1	115	74	0	122	1	79	-1	121	1	78	0	121	1	78
	Left-Through-Right		0							0				0				0	
	Left-Right		0							0				0				0	
WESTBOUND	Left	139	0	139	0	139	139	0	146	0	146	0	146	0	146	0	146	0	146
	Left-Through		1							1				1				1	
	Through	310	0	240	0	310	238	41	367	0	266	0	367	0	264	0	367	0	264
	Through-Right		1							1				1				1	
	Right	270	1	240	-6	264	238	0	284	1	266	-6	278	1	264	0	278	1	264
	Left-Through-Right		0							0				0				0	
	Left-Right		0							0				0				0	

CRITICAL VOLUMES	*North-South:*	506	*North-South:*	500	*North-South:*	532	*North-South:*	526	*North-South:*	526
	East-West:	323	*East-West:*	321	*East-West:*	353	*East-West:*	351	*East-West:*	351
	SUM:	829	*SUM:*	821	*SUM:*	885	*SUM:*	877	*SUM:*	877
VOLUME/CAPACITY *(V/C)* RATIO:		0.553		0.547		0.590		0.585		0.585
V/C LESS ATSAC/ATCS ADJUSTMENT:		0.453		0.447		0.490		0.485		0.485
LEVEL OF SERVICE (LOS):		A		A		A		A		A

REMARKS:

Version: 1i Beta; 8/4/2011

PROJECT IMPACT

Change in *v/c* due to project:	-0.005	Δ*v/c* after mitigation:	-0.005
Significant impacted?	NO	Fully mitigated?	N/A

Level of Service Worksheet

(Circular 212 Method)

I/S #:	North-South Street:	Campus Rd	Year of Count:	2016	Ambient Growth: (%):	1	Conducted by:	GTC	Date:	12/1/2016
6	East-West Street:	Ramona Blvd	Projection Year:	2021	Peak Hour:	AM	Reviewed by:		Project:	ULA Student Housing Proj e

No. of Phases	3	3	3	3	3
Opposed Ø'ing: N/S-1, E/W-2 or Both-3?	0	0	0	0	0
Right Turns: FREE-1, NRTOR-2 or OLA-3?	NB-- 0 SB-- 0 EB-- 0 WB-- 3	NB-- 0 SB-- 0 EB-- 0 WB-- 3	NB-- 0 SB-- 0 EB-- 0 WB-- 3	NB-- 0 SB-- 0 EB-- 0 WB-- 3	NB-- 0 SB-- 0 EB-- 0 WB-- 3
ATSAC-1 or ATSAC+ATCS-2?	2	2	2	2	2
Override Capacity	0	0	0	0	0

MOVEMENT		EXISTING CONDITION			EXISTING PLUS PROJECT			FUTURE CONDITION W/O PROJECT				FUTURE CONDITION W/ PROJECT				FUTURE W/ PROJECT W/ MITIGATION			
		Volume	No. of Lanes	Lane Volume	Project Traffic	Total Volume	Lane Volume	Added Volume	Total Volume	No. of Lanes	Lane Volume	Added Volume	Total Volume	No. of Lanes	Lane Volume	Added Volume	Total Volume	No. of Lanes	Lane Volume
NORTHBOUND	Left	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
	Left-Through		0							0				0				0	
	Through	0	0	**0**	0	0	**0**	0	0	0	**0**	0	0	0	**0**	0	0	0	**0**
	Through-Right		0							0				0				0	
	Right	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
	Left-Through-Right		0							0				0				0	
	Left-Right		0							0				0				0	
SOUTHBOUND	Left	234	1	**234**	-5	229	**229**	0	246	1	**246**	-5	241	1	**241**	0	241	1	**241**
	Left-Through		0							0				0				0	
	Through	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
	Through-Right		0							0				0				0	
	Right	66	1	0	-5	61	0	0	69	1	0	-5	64	1	0	0	64	1	0
	Left-Through-Right		0							0				0				0	
	Left-Right		0							0				0				0	
EASTBOUND	Left	622	2	**342**	-7	615	**338**	22	676	2	**372**	-7	669	2	**368**	0	669	2	**368**
	Left-Through		0							0				0				0	
	Through	309	1	309	-1	308	308	16	341	1	341	-1	340	1	340	0	340	1	340
	Through-Right		0							0				0				0	
	Right	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
	Left-Through-Right		0							0				0				0	
	Left-Right		0							0				0				0	
WESTBOUND	Left	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
	Left-Through		0							0				0				0	
	Through	302	0	**546**	0	302	**544**	42	359	0	**595**	0	359	0	**593**	0	359	0	**593**
	Through-Right		1							1				1				1	
	Right	790	1	0	-4	786	0	0	830	1	0	-4	826	1	0	0	826	1	0
	Left-Through-Right		0							0				0				0	
	Left-Right		0							0				0				0	

CRITICAL VOLUMES	*North-South:*	234	*North-South:*	229	*North-South:*	246	*North-South:*	241	*North-South:*	241
	East-West:	888	*East-West:*	882	*East-West:*	967	*East-West:*	961	*East-West:*	961
	SUM:	1122	*SUM:*	1111	*SUM:*	1213	*SUM:*	1202	*SUM:*	1202
VOLUME/CAPACITY *(V/C)* RATIO:		0.787		0.780		0.851		0.844		0.844
V/C LESS ATSAC/ATCS ADJUSTMENT:		0.687		0.680		0.751		0.744		0.744
LEVEL OF SERVICE (LOS):		**B**		**B**		**C**		**C**		**C**

REMARKS:

Version: 1i Beta; 8/4/2011

PROJECT IMPACT

Change in *v/c* due to project:	-0.007	Δ*v/c* after mitigation:	-0.007
Significant impacted?	NO	Fully mitigated?	N/A

Level of Service Worksheet

(Circular 212 Method)

I/S #:	**North-South Street:**	Paseo Rancho Castilla	**Year of Count:**	2016	**Ambient Growth: (%):**	1	**Conducted by:**	GTC	**Date:** 12/1/2016
7	**East-West Street:**	Lansdowne Ave	**Projection Year:**	2021	**Peak Hour:**	AM	**Reviewed by:**		**Project:** ULA Student Housing Proje

No. of Phases	3	3	3	3	3
Opposed Ø'ing: N/S-1, E/W-2 or Both-3?	0	0	0	0	0
Right Turns: FREE-1, NRTOR-2 or OLA-3?	NB-- 0 SB-- 0 EB-- 0 WB-- 0	NB-- 0 SB-- 0 EB-- 0 WB-- 0	NB-- 0 SB-- 0 EB-- 0 WB-- 0	NB-- 0 SB-- 0 EB-- 0 WB-- 0	NB-- 0 SB-- 0 EB-- 0 WB-- 0
ATSAC-1 or ATSAC+ATCS-2?	2	2	2	2	2
Override Capacity	0	0	0	0	0

	MOVEMENT	**EXISTING CONDITION**			**EXISTING PLUS PROJECT**			**FUTURE CONDITION W/O PROJECT**				**FUTURE CONDITION W/ PROJECT**				**FUTURE W/ PROJECT W/ MITIGATION**			
		Volume	No. of Lanes	Lane Volume	Project Traffic	Total Volume	Lane Volume	Added Volume	Total Volume	No. of Lanes	Lane Volume	Added Volume	Total Volume	No. of Lanes	Lane Volume	Added Volume	Total Volume	No. of Lanes	Lane Volume
NORTHBOUND	Left	12	1	12	0	12	12	0	13	1	13	0	13	1	13	0	13	1	13
	Left-Through		0							0				0				0	
	Through	152	1	152	-2	150	150	0	160	1	160	-2	158	1	158	0	158	1	158
	Through-Right		0							0				0				0	
	Right	333	1	315	-12	321	304	0	350	1	331	-12	338	1	320	0	338	1	320
	Left-Through-Right		0							0				0				0	
	Left-Right		0							0				0				0	
SOUTHBOUND	Left	39	1	39	-19	20	20	0	41	1	41	-19	22	1	22	0	22	1	22
	Left-Through		0							0				0				0	
	Through	396	1	396	0	396	396	0	416	1	416	0	416	1	416	0	416	1	416
	Through-Right		0							0				0				0	
	Right	17	1	17	0	17	17	0	18	1	18	0	18	1	18	0	18	1	18
	Left-Through-Right		0							0				0				0	
	Left-Right		0							0				0				0	
EASTBOUND	Left	19	0	19	0	19	19	0	20	0	20	0	20	0	20	0	20	0	20
	Left-Through		1							1				1				1	
	Through	24	0	43	-1	23	42	0	25	0	45	-1	24	0	44	0	24	0	44
	Through-Right		0							0				0				0	
	Right	46	1	40	0	46	40	0	48	1	42	0	48	1	42	0	48	1	42
	Left-Through-Right		0							0				0				0	
	Left-Right		0							0				0				0	
WESTBOUND	Left	36	1	36	-2	34	34	0	38	1	38	-2	36	1	36	0	36	1	36
	Left-Through		0							0				0				0	
	Through	5	0	12	0	5	6	0	5	0	12	0	5	0	6	0	5	0	6
	Through-Right		1							1				1				1	
	Right	7	0	0	-6	1	0	0	7	0	0	-6	1	0	0	0	1	0	0
	Left-Through-Right		0							0				0				0	
	Left-Right		0							0				0				0	

CRITICAL VOLUMES	*North-South:* 408	*North-South:* 408	*North-South:* 429	*North-South:* 429	*North-South:* 429
	East-West: 79	*East-West:* 76	*East-West:* 83	*East-West:* 80	*East-West:* 80
	SUM: 487	*SUM:* 484	*SUM:* 512	*SUM:* 509	*SUM:* 509
VOLUME/CAPACITY *(V/C)* RATIO:	0.342	0.340	0.359	0.357	0.357
***V/C* LESS ATSAC/ATCS ADJUSTMENT:**	0.242	0.240	0.259	0.257	0.257
LEVEL OF SERVICE (LOS):	A	A	A	A	A

REMARKS:

Version: 1i Beta; 8/4/2011

PROJECT IMPACT

Change in *v/c* due to project:	-0.002	**Δ*v/c* after mitigation:**	-0.002
Significant impacted?	NO	**Fully mitigated?**	N/A

Level of Service Worksheet

(Circular 212 Method)

I/S #:	North-South Street:	Mariondale Ave	Year of Count:	2016	Ambient Growth: (%):	1	Conducted by:	GTC	Date:	12/1/2016
9	East-West Street:	Valley Blvd	Projection Year:	2021	Peak Hour:	AM	Reviewed by:		Project:	ULA Student Housing Proje

No. of Phases			3			3			3			3			3
Opposed Ø'ing: N/S-1, E/W-2 or Both-3?			1			1			1			1			1
Right Turns: FREE-1, NRTOR-2 or OLA-3?	NB-- 0	SB--	0	NB-- 0	SB--	0	NB-- 0	SB--	0	NB-- 0	SB--	0	NB-- 0	SB--	0
	EB-- 0	WB--	0	EB-- 0	WB--	0	EB-- 0	WB--	0	EB-- 0	WB--	0	EB-- 0	WB--	0
ATSAC-1 or ATSAC+ATCS-2?			2			2			2			2			2
Override Capacity			0			0			0			0			0

MOVEMENT		EXISTING CONDITION			EXISTING PLUS PROJECT			FUTURE CONDITION W/O PROJECT				FUTURE CONDITION W/ PROJECT				FUTURE W/ PROJECT W/ MITIGATION			
		Volume	No. of Lanes	Lane Volume	Project Traffic	Total Volume	Lane Volume	Added Volume	Total Volume	No. of Lanes	Lane Volume	Added Volume	Total Volume	No. of Lanes	Lane Volume	Added Volume	Total Volume	No. of Lanes	Lane Volume
NORTHBOUND	Left	123	0	123	-6	117	117	0	129	0	129	-6	123	0	123	0	123	0	123
	Left-Through		1							1				1				1	
	Through	13	0	136	0	13	130	0	14	0	143	0	14	0	137	0	14	0	137
	Through-Right		0							0				0				0	
	Right	150	1	0	-10	140	0	0	158	1	0	-10	148	1	0	0	148	1	0
	Left-Through-Right		0							0				0				0	
	Left-Right		0							0				0				0	
SOUTHBOUND	Left	8	1	8	0	8	8	0	8	1	8	0	8	1	8	0	8	1	8
	Left-Through		0							0				0				0	
	Through	0	0	1	0	0	1	0	0	0	1	0	0	0	1	0	0	0	1
	Through-Right		1							1				1				1	
	Right	1	0	0	0	1	0	0	1	0	0	0	1	0	0	0	1	0	0
	Left-Through-Right		0							0				0				0	
	Left-Right		0							0				0				0	
EASTBOUND	Left	21	1	21	0	21	21	0	22	1	22	0	22	1	22	0	22	1	22
	Left-Through		0							0				0				0	
	Through	577	2	289	0	577	289	51	657	2	329	0	657	2	329	0	657	2	329
	Through-Right		0							0				0				0	
	Right	120	1	59	-15	105	47	0	126	1	62	-15	111	1	50	0	111	1	50
	Left-Through-Right		0							0				0				0	
	Left-Right		0							0				0				0	
WESTBOUND	Left	347	1	347	-46	301	301	0	365	1	365	-46	319	1	319	0	319	1	319
	Left-Through		0							0				0				0	
	Through	628	1	350	0	628	350	79	739	1	408	0	739	1	408	0	739	1	408
	Through-Right		1							1				1				1	
	Right	72	0	72	0	72	72	0	76	0	76	0	76	0	76	0	76	0	76
	Left-Through-Right		0							0				0				0	
	Left-Right		0							0				0				0	
CRITICAL VOLUMES			*North-South:*	144		*North-South:*	138			*North-South:*	151			*North-South:*	145			*North-South:*	145
			East-West:	636		*East-West:*	590			*East-West:*	694			*East-West:*	648			*East-West:*	648
			SUM:	780		*SUM:*	728			*SUM:*	845			*SUM:*	793			*SUM:*	793
VOLUME/CAPACITY *(V/C)* RATIO:				0.547			0.511				0.593				0.556				0.556
V/C LESS ATSAC/ATCS ADJUSTMENT:				0.447			0.411				0.493				0.456				0.456
LEVEL OF SERVICE (LOS):				A			A				A				A				A

REMARKS:

Version: 1i Beta; 8/4/2011

PROJECT IMPACT

Change in *v/c* due to project:	-0.037	Δ*v/c* after mitigation:	-0.037
Significant impacted?	NO	Fully mitigated?	N/A

Level of Service Worksheet

(Circular 212 Method)

I/S #:	North-South Street:	Paseo Rancho Castilla/Eastern Ave	Year of Count:	2016	Ambient Growth: (%):	1	Conducted by:	GTC	Date:	12/1/2016
1	East-West Street:	Eastern Ave/State University Dr	Projection Year:	2021	Peak Hour:	PM	Reviewed by:		Project:	ULA Student Housing Proj e

	Existing Condition	Existing Plus Project	Future Condition W/O Project	Future Condition W/ Project	Future W/ Project W/ Mitigation
No. of Phases	4	4	4	4	4
Opposed Ø'ing: N/S-1, E/W-2 or Both-3?	3	3	3	3	3
Right Turns: FREE-1, NRTOR-2 or OLA-3?	NB-- 0 SB-- 0 EB-- 3 WB-- 0	NB-- 0 SB-- 0 EB-- 3 WB-- 0	NB-- 0 SB-- 0 EB-- 3 WB-- 0	NB-- 0 SB-- 0 EB-- 3 WB-- 0	NB-- 0 SB-- 0 EB-- 3 WB-- 0
ATSAC-1 or ATSAC+ATCS-2?	2	2	2	2	2
Override Capacity	0	0	0	0	0

	MOVEMENT	EXISTING CONDITION			EXISTING PLUS PROJECT			FUTURE CONDITION W/O PROJECT				FUTURE CONDITION W/ PROJECT				FUTURE W/ PROJECT W/ MITIGATION			
		Volume	No. of Lanes	Lane Volume	Project Traffic	Total Volume	Lane Volume	Added Volume	Total Volume	No. of Lanes	Lane Volume	Added Volume	Total Volume	No. of Lanes	Lane Volume	Added Volume	Total Volume	No. of Lanes	Lane Volume
NORTHBOUND	Left	795	1	**795**	-1	794	**794**	73	909	1	**909**	-1	908	1	**908**	0	908	1	**908**
	Left-Through		0							0				0				0	
	Through	371	1	220	-8	363	216	0	390	1	232	-8	382	1	228	0	382	1	228
	Through-Right		1							1				1				1	
	Right	69	0	69	0	69	69	0	73	0	73	0	73	0	73	0	73	0	73
	Left-Through-Right		0							0				0				0	
	Left-Right		0							0				0				0	
SOUTHBOUND	Left	100	0	100	-2	98	98	0	105	0	105	-2	103	0	103	0	103	0	103
	Left-Through		1							1				1				1	
	Through	266	1	**233**	-7	259	**228**	0	280	1	**245**	-7	273	1	**240**	0	273	1	**240**
	Through-Right		0							0				0				0	
	Right	87	1	49	0	87	49	0	91	1	51	0	91	1	51	0	91	1	51
	Left-Through-Right		0							0				0				0	
	Left-Right		0							0				0				0	
EASTBOUND	Left	76	0	76	0	76	76	0	80	0	80	0	80	0	80	0	80	0	80
	Left-Through		1							1				1				1	
	Through	50	0	**126**	0	50	**126**	0	53	0	**133**	0	53	0	**133**	0	53	0	**133**
	Through-Right		0							0				0				0	
	Right	873	2	0	-6	867	0	132	1050	2	0	-6	1044	2	0	0	1044	2	0
	Left-Through-Right		0							0				0				0	
	Left-Right		0							0				0				0	
WESTBOUND	Left	154	1	85	0	154	85	0	162	1	89	0	162	1	89	0	162	1	89
	Left-Through		1							1				1				1	
	Through	251	0	**290**	0	251	**290**	12	276	0	**317**	0	276	0	**317**	0	276	0	**317**
	Through-Right		1							1				1				1	
	Right	39	0	39	0	39	39	0	41	0	41	0	41	0	41	0	41	0	41
	Left-Through-Right		0							0				0				0	
	Left-Right		0							0				0				0	

	Existing Condition		Existing Plus Project		Future Condition W/O Project		Future Condition W/ Project		Future W/ Project W/ Mitigation	
CRITICAL VOLUMES	*North-South:*	1028	*North-South:*	1022	*North-South:*	1154	*North-South:*	1148	*North-South:*	1148
	East-West:	416	*East-West:*	416	*East-West:*	450	*East-West:*	450	*East-West:*	450
	SUM:	1444	*SUM:*	1438	*SUM:*	1604	*SUM:*	1598	*SUM:*	1598
VOLUME/CAPACITY *(V/C)* RATIO:		1.050		1.046		1.167		1.162		1.162
V/C LESS ATSAC/ATCS ADJUSTMENT:		0.950		0.946		1.067		1.062		1.062
LEVEL OF SERVICE (LOS):		E		E		F		F		F

REMARKS:

Version: 1i Beta; 8/4/2011

PROJECT IMPACT

Change in *v/c* due to project:	-0.005	Δ*v/c* after mitigation:	-0.005
Significant impacted?	NO	Fully mitigated?	N/A

Level of Service Worksheet

(Circular 212 Method)

I/S #:	**North-South Street:** Eastern Ave	**Year of Count:** 2016	**Ambient Growth: (%):** 1	**Conducted by:** GTC	**Date:** 12/1/2016
2	**East-West Street:** I-10 EB On-Ramp	**Projection Year:** 2021	**Peak Hour:** PM	**Reviewed by:**	**Project:** ULA Student Housing Proje

No. of Phases	2	2	2	2	2
Opposed Ø'ing: N/S-1, E/W-2 or Both-3?	0	0	0	0	0
Right Turns: FREE-1, NRTOR-2 or OLA-3?	NB-- 0 SB-- 0 EB-- 0 WB-- 0	NB-- 0 SB-- 0 EB-- 0 WB-- 0	NB-- 0 SB-- 0 EB-- 0 WB-- 0	NB-- 0 SB-- 0 EB-- 0 WB-- 0	NB-- 0 SB-- 0 EB-- 0 WB-- 0
ATSAC-1 or ATSAC+ATCS-2?	2	2	2	2	2
Override Capacity	0	0	0	0	0

	MOVEMENT	EXISTING CONDITION			EXISTING PLUS PROJECT			FUTURE CONDITION W/O PROJECT				FUTURE CONDITION W/ PROJECT				FUTURE W/ PROJECT W/ MITIGATION			
		Volume	No. of Lanes	Lane Volume	Project Traffic	Total Volume	Lane Volume	Added Volume	Total Volume	No. of Lanes	Lane Volume	Added Volume	Total Volume	No. of Lanes	Lane Volume	Added Volume	Total Volume	No. of Lanes	Lane Volume
NORTHBOUND	Left	31	1	31	0	31	31	0	33	1	33	0	33	1	33	0	33	1	33
	Left-Through		0							0				0				0	
	Through	1235	2	528	-8	1227	525	73	1371	2	580	-8	1363	2	576	0	1363	2	576
	Through-Right		1							1				1				1	
	Right	350	0	350	-3	347	347	0	368	0	368	-3	365	0	365	0	365	0	365
	Left-Through-Right		0							0				0				0	
	Left-Right		0							0				0				0	
SOUTHBOUND	Left	325	2	179	0	325	179	24	366	2	201	0	366	2	201	0	366	2	201
	Left-Through		0							0				0				0	
	Through	973	2	487	-13	960	480	107	1130	2	565	-13	1117	2	559	0	1117	2	559
	Through-Right		0							0				0				0	
	Right	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
	Left-Through-Right		0							0				0				0	
	Left-Right		0							0				0				0	
EASTBOUND	Left	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
	Left-Through		0							0				0				0	
	Through	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
	Through-Right		0							0				0				0	
	Right	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
	Left-Through-Right		0							0				0				0	
	Left-Right		0							0				0				0	
WESTBOUND	Left	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
	Left-Through		0							0				0				0	
	Through	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
	Through-Right		0							0				0				0	
	Right	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
	Left-Through-Right		0							0				0				0	
	Left-Right		0							0				0				0	

CRITICAL VOLUMES	*North-South:* 707	*North-South:* 704	*North-South:* 781	*North-South:* 777	*North-South:* 777
	East-West: 0	*East-West:* 0	*East-West:* 0	*East-West:* 0	*East-West:* 0
	SUM: 707	*SUM:* 704	*SUM:* 781	*SUM:* 777	*SUM:* 777
VOLUME/CAPACITY *(V/C)* RATIO:	0.471	0.469	0.521	0.518	0.518
V/C LESS ATSAC/ATCS ADJUSTMENT:	0.371	0.369	0.421	0.418	0.418
LEVEL OF SERVICE (LOS):	A	A	A	A	A

REMARKS:

Version: 1i Beta; 8/4/2011

PROJECT IMPACT

Change in *v/c* due to project:	-0.003	Δ*v/c* after mitigation:	-0.003
Significant impacted?	NO	Fully mitigated?	N/A

Level of Service Worksheet

(Circular 212 Method)

I/S #:	**North-South Street:**	Eastern Ave	**Year of Count:**	2016	**Ambient Growth: (%):**	1	**Conducted by:**	GTC	**Date:**	12/1/2016
3	**East-West Street:**	I-10 EB Ramps/Ramona Blvd	**Projection Year:**	2021	**Peak Hour:**	PM	**Reviewed by:**		**Project:**	ULA Student Housing Proje

No. of Phases			2			2			2			2			2
Opposed Ø'ing: N/S-1, E/W-2 or Both-3?			0			0			0			0			0
Right Turns: FREE-1, NRTOR-2 or OLA-3?	NB-- 0	SB--	0	NB-- 0	SB--	0	NB-- 0	SB--	0	NB-- 0	SB--	0	NB-- 0	SB--	0
	EB-- 0	WB--	0	EB-- 0	WB--	0	EB-- 0	WB--	0	EB-- 0	WB--	0	EB-- 0	WB--	0
ATSAC-1 or ATSAC+ATCS-2?			2			2			2			2			2
Override Capacity			0			0			0			0			0

MOVEMENT		EXISTING CONDITION			EXISTING PLUS PROJECT			FUTURE CONDITION W/O PROJECT				FUTURE CONDITION W/ PROJECT				FUTURE W/ PROJECT W/ MITIGATION			
		Volume	No. of Lanes	Lane Volume	Project Traffic	Total Volume	Lane Volume	Added Volume	Total Volume	No. of Lanes	Lane Volume	Added Volume	Total Volume	No. of Lanes	Lane Volume	Added Volume	Total Volume	No. of Lanes	Lane Volume
NORTHBOUND	Left	23	1	23	0	23	23	0	24	1	24	0	24	1	24	0	24	1	24
	Left-Through		0							0				0				0	
	Through	982	3	**327**	-5	977	**326**	47	1079	3	**360**	-5	1074	3	**358**	0	1074	3	**358**
	Through-Right		0							0				0				0	
	Right	240	1	163	-2	238	166	0	252	1	171	-2	250	1	174	0	250	1	174
	Left-Through-Right		0							0				0				0	
	Left-Right		0							0				0				0	
SOUTHBOUND	Left	143	1	**143**	-2	141	**141**	33	183	1	**183**	-2	181	1	**181**	0	181	1	**181**
	Left-Through		0							0				0				0	
	Through	647	1	421	-7	640	416	50	730	1	480	-7	723	1	475	0	723	1	475
	Through-Right		1							1				1				1	
	Right	195	0	195	-3	192	192	25	230	0	230	-3	227	0	227	0	227	0	227
	Left-Through-Right		0							0				0				0	
	Left-Right		0							0				0				0	
EASTBOUND	Left	351	1	**351**	-3	348	**348**	13	382	1	**382**	-3	379	1	**379**	0	379	1	**379**
	Left-Through		0							0				0				0	
	Through	203	1	203	-1	202	202	0	213	1	213	-1	212	1	212	0	212	1	212
	Through-Right		1							1				1				1	
	Right	244	0	233	0	244	233	0	256	0	244	0	256	0	244	0	256	0	244
	Left-Through-Right		0							0				0				0	
	Left-Right		0							0				0				0	
WESTBOUND	Left	154	1	154	-9	145	145	0	162	1	162	-9	153	1	153	0	153	1	153
	Left-Through		0							0				0				0	
	Through	10	1	10	0	10	10	0	11	1	11	0	11	1	11	0	11	1	11
	Through-Right		0							0				0				0	
	Right	242	1	**171**	-3	239	**169**	13	267	1	**176**	-3	264	1	**174**	0	264	1	**174**
	Left-Through-Right		0							0				0				0	
	Left-Right		0							0				0				0	
CRITICAL VOLUMES			*North-South:*	470		*North-South:*	467			*North-South:*	543			*North-South:*	539			*North-South:*	539
			East-West:	522		*East-West:*	517			*East-West:*	558			*East-West:*	553			*East-West:*	553
			SUM:	992		*SUM:*	984			*SUM:*	1101			*SUM:*	1092			*SUM:*	1092
VOLUME/CAPACITY *(V/C)* RATIO:				0.661			0.656				0.734				0.728				0.728
V/C LESS ATSAC/ATCS ADJUSTMENT:				0.561			0.556				0.634				0.628				0.628
LEVEL OF SERVICE (LOS):				A			A				B				B				B

REMARKS:

Version: 1i Beta; 8/4/2011

PROJECT IMPACT

Change in *v/c* due to project:	-0.006	**Δ*v/c* after mitigation:**	-0.006
Significant impacted?	NO	**Fully mitigated?**	N/A

Level of Service Worksheet

(Circular 212 Method)

I/S #:	North-South Street:	Campus Rd	Year of Count:	2016	Ambient Growth: (%):	1	Conducted by:	GTC	Date:	12/1/2016
5	East-West Street:	I-10 WB Off-Ramp/State University Dr	Projection Year:	2021	Peak Hour:	PM	Reviewed by:		Project:	ULA Student Housing Proje

No. of Phases				2				2				2				2				2
Opposed Ø'ing: N/S-1, E/W-2 or Both-3?				0				0				0				0				0
Right Turns: FREE-1, NRTOR-2 or OLA-3?	NB--	0	SB--	0	NB--	0	SB--	0	NB--	0	SB--	0	NB--	0	SB--	0	NB--	0	SB--	0
	EB--	0	WB--	0	EB--	0	WB--	0	EB--	0	WB--	0	EB--	0	WB--	0	EB--	0	WB--	0
ATSAC-1 or ATSAC+ATCS-2?				2				2				2				2				2
Override Capacity				0				0				0				0				0

	MOVEMENT	EXISTING CONDITION			EXISTING PLUS PROJECT			FUTURE CONDITION W/O PROJECT				FUTURE CONDITION W/ PROJECT				FUTURE W/ PROJECT W/ MITIGATION			
		Volume	No. of Lanes	Lane Volume	Project Traffic	Total Volume	Lane Volume	Added Volume	Total Volume	No. of Lanes	Lane Volume	Added Volume	Total Volume	No. of Lanes	Lane Volume	Added Volume	Total Volume	No. of Lanes	Lane Volume
NORTHBOUND	Left	54	1	54	0	54	54	0	57	1	57	0	57	1	57	0	57	1	57
	Left-Through		0							0				0				0	
	Through	481	2	241	-4	477	239	0	506	2	253	-4	502	2	251	0	502	2	251
	Through-Right		0							0				0				0	
	Right	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
	Left-Through-Right		0							0				0				0	
	Left-Right		0							0				0				0	
SOUTHBOUND	Left	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
	Left-Through		0							0				0				0	
	Through	483	1	313	-27	456	300	0	508	1	329	-27	481	1	316	0	481	1	316
	Through-Right		1							1				1				1	
	Right	143	0	143	0	143	143	0	150	0	150	0	150	0	150	0	150	0	150
	Left-Through-Right		0							0				0				0	
	Left-Right		0							0				0				0	
EASTBOUND	Left	70	1	70	0	70	70	0	74	1	74	0	74	1	74	0	74	1	74
	Left-Through		0							0				0				0	
	Through	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
	Through-Right		0							0				0				0	
	Right	258	1	231	-2	256	229	0	271	1	243	-2	269	1	241	0	269	1	241
	Left-Through-Right		0							0				0				0	
	Left-Right		0							0				0				0	
WESTBOUND	Left	60	0	60	0	60	60	0	63	0	63	0	63	0	63	0	63	0	63
	Left-Through		1							1				1				1	
	Through	206	0	160	0	206	159	12	229	0	172	0	229	0	171	0	229	0	171
	Through-Right		1							1				1				1	
	Right	213	1	160	-2	211	159	0	224	1	172	-2	222	1	171	0	222	1	171
	Left-Through-Right		0							0				0				0	
	Left-Right		0							0				0				0	

		EXISTING CONDITION		EXISTING PLUS PROJECT		FUTURE CONDITION W/O PROJECT		FUTURE CONDITION W/ PROJECT		FUTURE W/ PROJECT W/ MITIGATION
CRITICAL VOLUMES	*North-South:*	367	*North-South:*	354	*North-South:*	386	*North-South:*	373	*North-South:*	373
	East-West:	291	*East-West:*	289	*East-West:*	306	*East-West:*	304	*East-West:*	304
	SUM:	658	*SUM:*	643	*SUM:*	692	*SUM:*	677	*SUM:*	677
VOLUME/CAPACITY *(V/C)* RATIO:		0.439		0.429		0.461		0.451		0.451
V/C LESS ATSAC/ATCS ADJUSTMENT:		0.339		0.329		0.361		0.351		0.351
LEVEL OF SERVICE (LOS):		A		A		A		A		A

REMARKS:

Version: 1i Beta; 8/4/2011

PROJECT IMPACT

Change in *v/c* due to project:	-0.10	Δ*v/c* after mitigation:	-0.010
Significant impacted?	NO	Fully mitigated?	N/A

Level of Service Worksheet

(Circular 212 Method)

I/S #:	North-South Street:	Campus Rd	Year of Count:	2016	Ambient Growth: (%):	1	Conducted by:	GTC	Date:	12/1/2016
6	East-West Street:	Ramona Blvd	Projection Year:	2021	Peak Hour:	PM	Reviewed by:		Project:	ULA Student Housing Proje

No. of Phases	3	3	3	3	3
Opposed Ø'ing: N/S-1, E/W-2 or Both-3?	0	0	0	0	0
Right Turns: FREE-1, NRTOR-2 or OLA-3?	NB-- 0 SB-- 0 EB-- 0 WB-- 3	NB-- 0 SB-- 0 EB-- 0 WB-- 3	NB-- 0 SB-- 0 EB-- 0 WB-- 3	NB-- 0 SB-- 0 EB-- 0 WB-- 3	NB-- 0 SB-- 0 EB-- 0 WB-- 3
ATSAC-1 or ATSAC+ATCS-2?	2	2	2	2	2
Override Capacity	0	0	0	0	0

MOVEMENT		EXISTING CONDITION			EXISTING PLUS PROJECT			FUTURE CONDITION W/O PROJECT				FUTURE CONDITION W/ PROJECT				FUTURE W/ PROJECT W/ MITIGATION			
		Volume	No. of Lanes	Lane Volume	Project Traffic	Total Volume	Lane Volume	Added Volume	Total Volume	No. of Lanes	Lane Volume	Added Volume	Total Volume	No. of Lanes	Lane Volume	Added Volume	Total Volume	No. of Lanes	Lane Volume
NORTHBOUND	Left	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
	Left-Through		0							0				0				0	
	Through	0	0	**0**	0	0	**0**	0	0	0	**0**	0	0	0	**0**	0	0	0	**0**
	Through-Right		0							0				0				0	
	Right	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
	Left-Through-Right		0							0				0				0	
	Left-Right		0							0				0				0	
SOUTHBOUND	Left	218	1	**218**	-12	206	**206**	0	229	1	**229**	-12	217	1	**217**	0	217	1	**217**
	Left-Through		0							0				0				0	
	Through	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
	Through-Right		0							0				0				0	
	Right	158	1	92	-12	146	81	0	166	1	89	-12	154	1	78	0	154	1	78
	Left-Through-Right		0							0				0				0	
	Left-Right		0							0				0				0	
EASTBOUND	Left	242	2	**133**	-3	239	**131**	27	281	2	**155**	-3	278	2	**153**	0	278	2	**153**
	Left-Through		0							0				0				0	
	Through	312	1	312	-2	310	310	6	334	1	334	-2	332	1	332	0	332	1	332
	Through-Right		0							0				0				0	
	Right	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
	Left-Through-Right		0							0				0				0	
	Left-Right		0							0				0				0	
WESTBOUND	Left	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
	Left-Through		0							0				0				0	
	Through	269	0	**429**	0	269	**429**	13	296	0	**458**	0	296	0	**457**	0	296	0	**457**
	Through-Right		1							1				1				1	
	Right	589	1	0	-1	588	0	0	619	1	0	-1	618	1	0	0	618	1	0
	Left-Through-Right		0							0				0				0	
	Left-Right		0							0				0				0	

		EXISTING CONDITION	EXISTING PLUS PROJECT	FUTURE CONDITION W/O PROJECT	FUTURE CONDITION W/ PROJECT	FUTURE W/ PROJECT W/ MITIGATION
CRITICAL VOLUMES	*North-South:*	218	206	229	217	217
	East-West:	562	560	613	610	610
	SUM:	780	766	842	827	827
VOLUME/CAPACITY *(V/C)* RATIO:		0.547	0.538	0.591	0.580	0.580
V/C LESS ATSAC/ATCS ADJUSTMENT:		0.447	0.438	0.491	0.480	0.480
LEVEL OF SERVICE (LOS):		A	A	A	A	A

REMARKS:

Version: 1i Beta; 8/4/2011

PROJECT IMPACT

Change in *v/c* due to project:	-0.11	Δ*v/c* after mitigation:	-0.011
Significant impacted?	NO	Fully mitigated?	N/A

Level of Service Worksheet

(Circular 212 Method)

I/S #:	North-South Street:	Paseo Rancho Castilla	Year of Count:	2016	Ambient Growth: (%):	1	Conducted by:	GTC	Date:	12/1/2016
7	East-West Street:	Lansdowne Ave	Projection Year:	2021	Peak Hour:	PM	Reviewed by:		Project:	ULA Student Housing Proj e

No. of Phases					3					3					3					3					3
Opposed Ø'ing: N/S-1, E/W-2 or Both-3?					0					0					0					0					0
Right Turns: FREE-1, NRTOR-2 or OLA-3?	NB--	0	SB--		0	NB--	0	SB--		0	NB--	0	SB--		0	NB--	0	SB--		0	NB--	0	SB--		0
	EB--	0	WB--		0	EB--	0	WB--		0	EB--	0	WB--		0	EB--	0	WB--		0	EB--	0	WB--		0
ATSAC-1 or ATSAC+ATCS-2?					2					2					2					2					2
Override Capacity					0					0					0					0					0

	MOVEMENT	EXISTING CONDITION			EXISTING PLUS PROJECT			FUTURE CONDITION W/O PROJECT				FUTURE CONDITION W/ PROJECT				FUTURE W/ PROJECT W/ MITIGATION			
		Volume	No. of Lanes	Lane Volume	Project Traffic	Total Volume	Lane Volume	Added Volume	Total Volume	No. of Lanes	Lane Volume	Added Volume	Total Volume	No. of Lanes	Lane Volume	Added Volume	Total Volume	No. of Lanes	Lane Volume
NORTHBOUND	Left	25	1	25	0	25	25	0	26	1	26	0	26	1	26	0	26	1	26
	Left-Through		0							0				0				0	
	Through	380	1	**380**	-1	379	**379**	0	399	1	**399**	-1	398	1	**398**	0	398	1	**398**
	Through-Right		0							0				0				0	
	Right	262	1	180	-4	258	179	0	275	1	189	-4	271	1	188	0	271	1	188
	Left-Through-Right		0							0				0				0	
	Left-Right		0							0				0				0	
SOUTHBOUND	Left	20	1	**20**	-6	14	**14**	0	21	1	**21**	-6	15	1	**15**	0	15	1	**15**
	Left-Through		0							0				0				0	
	Through	292	1	292	0	292	292	0	307	1	307	0	307	1	307	0	307	1	307
	Through-Right		0							0				0				0	
	Right	24	1	24	0	24	24	0	25	1	25	0	25	1	25	0	25	1	25
	Left-Through-Right		0							0				0				0	
	Left-Right		0							0				0				0	
EASTBOUND	Left	21	0	21	0	21	21	0	22	0	22	0	22	0	22	0	22	0	22
	Left-Through		1							1				1				1	
	Through	12	0	**33**	0	12	**33**	0	13	0	**35**	0	13	0	**35**	0	13	0	**35**
	Through-Right		0							0				0				0	
	Right	30	1	18	0	30	18	0	32	1	19	0	32	1	19	0	32	1	19
	Left-Through-Right		0							0				0				0	
	Left-Right		0							0				0				0	
WESTBOUND	Left	164	1	**164**	-5	159	**159**	0	172	1	**172**	-5	167	1	**167**	0	167	1	**167**
	Left-Through		0							0				0				0	
	Through	10	0	40	-1	9	24	0	11	0	43	-1	10	0	27	0	10	0	27
	Through-Right		1							1				1				1	
	Right	30	0	0	-15	15	0	0	32	0	0	-15	17	0	0	0	17	0	0
	Left-Through-Right		0							0				0				0	
	Left-Right		0							0				0				0	
CRITICAL VOLUMES			*North-South:*	400		*North-South:*	393			*North-South:*	420			*North-South:*	413			*North-South:*	413
			East-West:	197		*East-West:*	192			*East-West:*	207			*East-West:*	202			*East-West:*	202
			SUM:	597		*SUM:*	585			*SUM:*	627			*SUM:*	615			*SUM:*	615
VOLUME/CAPACITY *(V/C)* RATIO:				0.419			0.411				0.440				0.432				0.432
V/C LESS ATSAC/ATCS ADJUSTMENT:				0.319			0.311				0.340				0.332				0.332
LEVEL OF SERVICE (LOS):				A			A				A				A				A

REMARKS:

Version: 1i Beta; 8/4/2011

PROJECT IMPACT

Change in *v/c* due to project:	-0.008	Δ*v/c* after mitigation:	-0.008
Significant impacted?	NO	Fully mitigated?	N/A

Level of Service Worksheet
(Circular 212 Method)

I/S #:	North-South Street:	Mariondale Ave	Year of Count:	2016	Ambient Growth: (%):	1	Conducted by:	GTC	Date:	12/1/2016
9	East-West Street:	Valley Blvd	Projection Year:	2021	Peak Hour:	PM	Reviewed by:		Project:	ULA Student Housing Proj e

No. of Phases				3				3				3				3				3
Opposed Ø'ing: N/S-1, E/W-2 or Both-3?				1				1				1				1				1
Right Turns: FREE-1, NRTOR-2 or OLA-3?	NB--	0	SB--	0	NB--	0	SB--	0	NB--	0	SB--	0	NB--	0	SB--	0	NB--	0	SB--	0
	EB--	0	WB--	0	EB--	0	WB--	0	EB--	0	WB--	0	EB--	0	WB--	0	EB--	0	WB--	0
ATSAC-1 or ATSAC+ATCS-2?				2				2				2				2				2
Override Capacity				0				0				0				0				0

	MOVEMENT	EXISTING CONDITION			EXISTING PLUS PROJECT			FUTURE CONDITION W/O PROJECT				FUTURE CONDITION W/ PROJECT				FUTURE W/ PROJECT W/ MITIGATION			
		Volume	No. of Lanes	Lane Volume	Project Traffic	Total Volume	Lane Volume	Added Volume	Total Volume	No. of Lanes	Lane Volume	Added Volume	Total Volume	No. of Lanes	Lane Volume	Added Volume	Total Volume	No. of Lanes	Lane Volume
NORTHBOUND	Left	102	0	102	-15	87	87	0	107	0	107	-15	92	0	92	0	92	0	92
	Left-Through		1							1				1				1	
	Through	8	0	110	0	8	95	0	8	0	115	0	8	0	100	0	8	0	100
	Through-Right		0							0				0				0	
	Right	321	1	**167**	-25	296	**150**	0	337	1	**175**	-25	312	1	**158**	0	312	1	**158**
	Left-Through-Right		0							0				0				0	
	Left-Right		0							0				0				0	
SOUTHBOUND	Left	59	1	**59**	0	59	**59**	0	62	1	**62**	0	62	1	**62**	0	62	1	**62**
	Left-Through		0							0				0				0	
	Through	6	0	25	0	6	25	0	6	0	26	0	6	0	26	0	6	0	26
	Through-Right		1							1				1				1	
	Right	19	0	0	0	19	0	0	20	0	0	0	20	0	0	0	20	0	0
	Left-Through-Right		0							0				0				0	
	Left-Right		0							0				0				0	
EASTBOUND	Left	10	1	10	0	10	10	0	11	1	11	0	11	1	11	0	11	1	11
	Left-Through		0							0				0				0	
	Through	599	2	**300**	0	599	**300**	63	693	2	**347**	0	693	2	**347**	0	693	2	**347**
	Through-Right		0							0				0				0	
	Right	122	1	71	-5	117	74	0	128	1	75	-5	123	1	77	0	123	1	77
	Left-Through-Right		0							0				0				0	
	Left-Right		0							0				0				0	
WESTBOUND	Left	309	1	**309**	-16	293	**293**	0	325	1	**325**	-16	309	1	**309**	0	309	1	**309**
	Left-Through		0							0				0				0	
	Through	628	1	319	0	628	319	62	722	1	366	0	722	1	366	0	722	1	366
	Through-Right		1							1				1				1	
	Right	9	0	9	0	9	9	0	9	0	9	0	9	0	9	0	9	0	9
	Left-Through-Right		0							0				0				0	
	Left-Right		0							0				0				0	

CRITICAL VOLUMES	*North-South:*	226	209	237	220	220
	East-West:	609	593	672	656	656
	SUM:	835	802	909	876	876
VOLUME/CAPACITY *(V/C)* RATIO:		0.586	0.563	0.638	0.615	0.615
V/C LESS ATSAC/ATCS ADJUSTMENT:		0.486	0.463	0.538	0.515	0.515
LEVEL OF SERVICE (LOS):		A	A	A	A	A

REMARKS:

Version: 1i Beta; 8/4/2011

PROJECT IMPACT

Change in *v/c* due to project:	-0.023	Δ*v/c* after mitigation:	-0.023
Significant impacted?	NO	Fully mitigated?	N/A

EXISTING CONDITIONS

CSULA STUDENT HOUSING PROJECT

Intersection Capacity Utilization Analysis

11. I-710 SOUTHBOUND ON-RAMP & VALLEY BOULEVARD

Through Lane Capacity:	1600 vph	North/South Split Phase:	N
Left-Turn Lane Capacity:	1600 vph	East/West Split Phase:	N
Double-Left Penalty:	10 %	Loss Time % per Cycle:	10%
Right-Turn on Red:	50 %	ITS Percentage:	0%
Overlapping Right Turn:			

WEEKDAY MORNING PEAK HOUR

Approach	Movement	Lanes	Capacity	Volume	V/C		ICU Analysis		
	Right	0.00	0	0	0.000		N/S 1:	0.000	*
Southbound	Through	0.00	0	0	0.000	*	N/S 2:	0.000	
	Left	0.00	0	0	0.000	*	E/W 1:	0.905	*
	Right	0.00	0	0	0.000		E/W 2:	0.361	
Westbound	Through	2.00	3,200	1,154	0.361				
	Left	2.00	2,880	1,551	0.539	*	V/C Ratio:	0.905	
	Right	0.00	0	0	0.000		Loss Time:	0.100	
Northbound	Through	0.00	0	0	0.000	*	ITS:	0.000	
	Left	0.00	0	0	0.000	*			
	Right	1.00	1,600	586	0.366	*	ICU:	1.005	
Eastbound	Through	2.00	3,200	198	0.062				
	Left	0.00	0	0	0.000		LOS:	F	

WEEKDAY AFTERNOON PEAK HOUR

Approach	Movement	Lanes	Capacity	Volume	V/C		ICU Analysis		
	Right	0.00	0	0	0.000		N/S 1:	0.000	*
Southbound	Through	0.00	0	0	0.000	*	N/S 2:	0.000	
	Left	0.00	0	0	0.000	*	E/W 1:	0.658	*
	Right	0.00	0	0	0.000		E/W 2:	0.323	
Westbound	Through	2.00	3,200	1,033	0.323				
	Left	2.00	2,880	797	0.277	*	V/C Ratio:	0.658	
	Right	0.00	0	0	0.000		Loss Time:	0.100	
Northbound	Through	0.00	0	0	0.000	*	ITS:	0.000	
	Left	0.00	0	0	0.000	*			
	Right	1.00	1,600	610	0.381	*	ICU:	0.758	
Eastbound	Through	2.00	3,200	478	0.149				
	Left	0.00	0	0	0.000		LOS:	C	

* Critical Movement

EXISTING CONDITIONS

CSULA STUDENT HOUSING PROJECT

Intersection Capacity Utilization Analysis

12. I-710 NORTHBOUND OFF-RAMP & VALLEY BOULEVARD

Through Lane Capacity:	1600 vph		North/South Split Phase:	N
Left-Turn Lane Capacity:	1600 vph		East/West Split Phase:	N
Double-Left Penalty:	10 %		Loss Time % per Cycle:	10%
Right-Turn on Red:	50 %		ITS Percentage:	0%
Overlapping Right Turn:				

WEEKDAY MORNING PEAK HOUR

Approach	Movement	Lanes	Capacity	Volume	V/C		ICU Analysis		
	Right	0.50	0	0	0.000		N/S 1:	0.286	
Southbound	Through	0.00	0	0	0.000	*	N/S 2:	0.317	*
	Left	0.50	1,600	1	0.001		E/W 1:	0.067	
	Right	0.50	0	5	0.000		E/W 2:	0.328	*
Westbound	Through	3.50	6,400	2,089	0.327	*			
	Left	0.00	0	0	0.000		V/C Ratio:	0.645	
	Right	1.33	2,724	777	0.285		Loss Time:	0.100	
Northbound	Through	0.34	14	4	0.285		ITS:	0.000	
	Left	1.33	1,855	588	0.317	*			
	Right	0.00	0	0	0.000		ICU:	0.745	
Eastbound	Through	2.00	3,200	214	0.067				
	Left	0.00	1,600	1	0.001	*	LOS:	C	

WEEKDAY AFTERNOON PEAK HOUR

Approach	Movement	Lanes	Capacity	Volume	V/C		ICU Analysis		
	Right	0.50	1,600	5	0.003		N/S 1:	0.399	*
Southbound	Through	0.00	0	0	0.000		N/S 2:	0.367	
	Left	0.50	0	0	0.000	*	E/W 1:	0.159	
	Right	0.50	0	0	0.000		E/W 2:	0.175	*
Westbound	Through	3.50	6,400	1,120	0.175	*			
	Left	0.00	0	0	0.000		V/C Ratio:	0.574	
	Right	1.33	3,197	1,277	0.399		Loss Time:	0.100	
Northbound	Through	0.34	3	1	0.399	*	ITS:	0.000	
	Left	1.33	1,600	582	0.364				
	Right	0.00	0	0	0.000		ICU:	0.674	
Eastbound	Through	2.00	3,200	508	0.159				
	Left	0.00	0	0	0.000	*	LOS:	B	

* Critical Movement

EXISTING CONDITIONS

CSULA STUDENT HOUSING PROJECT

Intersection Capacity Utilization Analysis

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13. FREMONT AVENUE & VALLEY BOULEVARD

Through Lane Capacity:	1600 vph	North/South Split Phase:	N
Left-Turn Lane Capacity:	1600 vph	East/West Split Phase:	N
Double-Left Penalty:	10 %	Loss Time % per Cycle:	10%
Right-Turn on Red:	50 %	ITS Percentage:	0%
Overlapping Right Turn:	S,E		

WEEKDAY MORNING PEAK HOUR

Approach	Movement	Lanes	Capacity	Volume	V/C	ICU Analysis	
	Right	2.00	3,200	1,239	0.063	N/S 1:	0.343 *
Southbound	Through	2.00	3,200	788	0.246	N/S 2:	0.273
	Left	1.00	1,600	79	0.049 *	E/W 1:	0.167
	Right	1.00	1,600	199	0.100	E/W 2:	0.584 *
Westbound	Through	2.00	3,200	833	0.260 *		
	Left	1.00	1,600	58	0.036	V/C Ratio:	0.927
	Right	0.50	0	17	0.000	Loss Time:	0.100
Northbound	Through	1.50	3,200	924	0.294 *	ITS:	0.000
	Left	1.00	1,600	43	0.027		
	Right	1.00	1,600	21	0.000	ICU:	1.027
Eastbound	Through	2.00	3,200	418	0.131		
	Left	1.00	1,600	519	0.324 *	LOS:	F

WEEKDAY AFTERNOON PEAK HOUR

Approach	Movement	Lanes	Capacity	Volume	V/C	ICU Analysis	
	Right	2.00	3,200	739	0.040	N/S 1:	0.347 *
Southbound	Through	2.00	3,200	975	0.305	N/S 2:	0.327
	Left	1.00	1,600	185	0.116 *	E/W 1:	0.369
	Right	1.00	1,600	348	0.160 *	E/W 2:	0.542 *
Westbound	Through	2.00	3,200	357	0.112		
	Left	1.00	1,600	109	0.068	V/C Ratio:	0.889
	Right	0.50	0	21	0.000	Loss Time:	0.100
Northbound	Through	1.50	3,200	717	0.231 *	ITS:	0.000
	Left	1.00	1,600	35	0.022		
	Right	1.00	1,600	43	0.016	ICU:	0.989
Eastbound	Through	2.00	3,200	962	0.301		
	Left	1.00	1,600	611	0.382 *	LOS:	E

* Critical Movement

CSULA STUDENT HOUSING PROJECT

Intersection Capacity Utilization Analysis

11. I-710 SOUTHBOUND ON-RAMP & VALLEY BOULEVARD

Through Lane Capacity: 1600 vph
Left-Turn Lane Capacity: 1600 vph
Double-Left Penalty: 10 %
Right-Turn on Red: 50 %
Overlapping Right Turn:

North/South Split Phase: N
East/West Split Phase: N
Loss Time % per Cycle: 10%
ITS Percentage: 0%

WEEKDAY MORNING PEAK HOUR

Approach	Movement	Lanes	Capacity	Volume	V/C	ICU Analysis	
Southbound	Right	0.00	0	0	0.000	N/S 1:	0.000 *
	Through	0.00	0	0	0.000 *	N/S 2:	0.000
	Left	0.00	0	0	0.000 *	E/W 1:	0.902 *
Westbound	Right	0.00	0	0	0.000	E/W 2:	0.346
	Through	2.00	3,200	1,108	0.346		
	Left	2.00	2,880	1,551	0.539 *	V/C Ratio:	0.902
Northbound	Right	0.00	0	0	0.000	Loss Time:	0.100
	Through	0.00	0	0	0.000 *	ITS:	0.000
	Left	0.00	0	0	0.000 *		
Eastbound	Right	1.00	1,600	580	0.363 *	ICU:	1.002
	Through	2.00	3,200	195	0.061		
	Left	0.00	0	0	0.000	LOS:	F

WEEKDAY AFTERNOON PEAK HOUR

Approach	Movement	Lanes	Capacity	Volume	V/C	ICU Analysis	
Southbound	Right	0.00	0	0	0.000	N/S 1:	0.000 *
	Through	0.00	0	0	0.000 *	N/S 2:	0.000
	Left	0.00	0	0	0.000 *	E/W 1:	0.648 *
Westbound	Right	0.00	0	0	0.000	E/W 2:	0.318
	Through	2.00	3,200	1,017	0.318		
	Left	2.00	2,880	797	0.277 *	V/C Ratio:	0.648
Northbound	Right	0.00	0	0	0.000	Loss Time:	0.100
	Through	0.00	0	0	0.000 *	ITS:	0.000
	Left	0.00	0	0	0.000 *		
Eastbound	Right	1.00	1,600	593	0.371 *	ICU:	0.748
	Through	2.00	3,200	469	0.147		
	Left	0.00	0	0	0.000	LOS:	C

* Critical Movement

EXISTING WITH PROJECT CONDITIONS

CSULA STUDENT HOUSING PROJECT

Intersection Capacity Utilization Analysis

12. I-710 NORTHBOUND OFF-RAMP & VALLEY BOULEVARD

Through Lane Capacity: 1600 vph
Left-Turn Lane Capacity: 1600 vph
Double-Left Penalty: 10 %
Right-Turn on Red: 50 %
Overlapping Right Turn:

North/South Split Phase: N
East/West Split Phase: N
Loss Time % per Cycle: 10%
ITS Percentage: 0%

WEEKDAY MORNING PEAK HOUR

Approach	Movement	Lanes	Capacity	Volume	V/C	ICU Analysis	
Southbound	Right	0.50	0	0	0.000	N/S 1:	0.279
	Through	0.00	0	0	0.000 *	N/S 2:	0.309 *
	Left	0.50	1,600	1	0.001	E/W 1:	0.066
Westbound	Right	0.50	0	5	0.000	E/W 2:	0.326 *
	Through	3.50	6,400	2,078	0.325 *		
	Left	0.00	0	0	0.000	V/C Ratio:	0.635
Northbound	Right	1.33	2,794	777	0.278	Loss Time:	0.100
	Through	0.34	14	4	0.278	ITS:	0.000
	Left	1.33	1,793	554	0.309 *		
Eastbound	Right	0.00	0	0	0.000	ICU:	0.735
	Through	2.00	3,200	211	0.066		
	Left	0.00	1,600	1	0.001 *	LOS:	C

WEEKDAY AFTERNOON PEAK HOUR

Approach	Movement	Lanes	Capacity	Volume	V/C	ICU Analysis	
Southbound	Right	0.50	1,600	5	0.003	N/S 1:	0.399 *
	Through	0.00	0	0	0.000	N/S 2:	0.359
	Left	0.50	0	0	0.000 *	E/W 1:	0.156
Westbound	Right	0.50	0	0	0.000	E/W 2:	0.174 *
	Through	3.50	6,400	1,116	0.174 *		
	Left	0.00	0	0	0.000	V/C Ratio:	0.573
Northbound	Right	1.33	3,197	1,277	0.399	Loss Time:	0.100
	Through	0.34	3	1	0.399 *	ITS:	0.000
	Left	1.33	1,600	570	0.356		
Eastbound	Right	0.00	0	0	0.000	ICU:	0.673
	Through	2.00	3,200	499	0.156		
	Left	0.00	0	0	0.000 *	LOS:	B

* Critical Movement

EXISTING WITH PROJECT CONDITIONS

CSULA STUDENT HOUSING PROJECT

Intersection Capacity Utilization Analysis

13. FREMONT AVENUE & VALLEY BOULEVARD

Through Lane Capacity:	1600 vph	North/South Split Phase:	N
Left-Turn Lane Capacity:	1600 vph	East/West Split Phase:	N
Double-Left Penalty:	10 %	Loss Time % per Cycle:	10%
Right-Turn on Red:	50 %	ITS Percentage:	0%
Overlapping Right Turn:	S,E		

WEEKDAY MORNING PEAK HOUR

Approach	Movement	Lanes	Capacity	Volume	V/C		ICU Analysis		
Southbound	Right	2.00	3,200	1,234	0.063		N/S 1:	0.343	*
	Through	2.00	3,200	788	0.246		N/S 2:	0.273	
	Left	1.00	1,600	79	0.049	*	E/W 1:	0.166	
Westbound	Right	1.00	1,600	199	0.100		E/W 2:	0.581	*
	Through	2.00	3,200	827	0.258	*			
	Left	1.00	1,600	58	0.036		V/C Ratio:	0.924	
Northbound	Right	0.50	0	17	0.000		Loss Time:	0.100	
	Through	1.50	3,200	924	0.294	*	ITS:	0.000	
	Left	1.00	1,600	43	0.027				
Eastbound	Right	1.00	1,600	21	0.000		ICU:	1.024	
	Through	2.00	3,200	416	0.130				
	Left	1.00	1,600	517	0.323	*	LOS:	F	

WEEKDAY AFTERNOON PEAK HOUR

Approach	Movement	Lanes	Capacity	Volume	V/C		ICU Analysis		
Southbound	Right	2.00	3,200	737	0.041		N/S 1:	0.347	*
	Through	2.00	3,200	975	0.305		N/S 2:	0.327	
	Left	1.00	1,600	185	0.116	*	E/W 1:	0.367	
Westbound	Right	1.00	1,600	348	0.160	*	E/W 2:	0.539	*
	Through	2.00	3,200	355	0.111				
	Left	1.00	1,600	109	0.068		V/C Ratio:	0.886	
Northbound	Right	0.50	0	21	0.000		Loss Time:	0.100	
	Through	1.50	3,200	717	0.231	*	ITS:	0.000	
	Left	1.00	1,600	35	0.022				
Eastbound	Right	1.00	1,600	43	0.016		ICU:	0.986	
	Through	2.00	3,200	957	0.299				
	Left	1.00	1,600	607	0.379	*	LOS:	E	

* Critical Movement

FUTURE WITHOUT PROJECT CONDITIONS (YEAR 2021)

CSULA STUDENT HOUSING PROJECT

Intersection Capacity Utilization Analysis

11. I-710 SOUTHBOUND ON-RAMP & VALLEY BOULEVARD

Through Lane Capacity:	1600 vph	North/South Split Phase:	N
Left-Turn Lane Capacity:	1600 vph	East/West Split Phase:	N
Double-Left Penalty:	10 %	Loss Time % per Cycle:	10%
Right-Turn on Red:	50 %	ITS Percentage:	0%
Overlapping Right Turn:			

WEEKDAY MORNING PEAK HOUR

Approach	Movement	Lanes	Capacity	Volume	V/C	ICU Analysis	
Southbound	Right	0.00	0	0	0.000	N/S 1:	0.000 *
	Through	0.00	0	0	0.000 *	N/S 2:	0.000
	Left	0.00	0	0	0.000 *	E/W 1:	0.958 *
Westbound	Right	0.00	0	0	0.000	E/W 2:	0.404
	Through	2.00	3,200	1,292	0.404		
	Left	2.00	2,880	1,651	0.573 *	V/C Ratio:	0.958
Northbound	Right	0.00	0	0	0.000	Loss Time:	0.100
	Through	0.00	0	0	0.000 *	ITS:	0.000
	Left	0.00	0	0	0.000 *		
Eastbound	Right	1.00	1,600	616	0.385 *	ICU:	1.058
	Through	2.00	3,200	259	0.081		
	Left	0.00	0	0	0.000	LOS:	F

WEEKDAY AFTERNOON PEAK HOUR

Approach	Movement	Lanes	Capacity	Volume	V/C	ICU Analysis	
Southbound	Right	0.00	0	0	0.000	N/S 1:	0.000 *
	Through	0.00	0	0	0.000 *	N/S 2:	0.000
	Left	0.00	0	0	0.000 *	E/W 1:	0.717 *
Westbound	Right	0.00	0	0	0.000	E/W 2:	0.359
	Through	2.00	3,200	1,148	0.359		
	Left	2.00	2,880	909	0.316 *	V/C Ratio:	0.717
Northbound	Right	0.00	0	0	0.000	Loss Time:	0.100
	Through	0.00	0	0	0.000 *	ITS:	0.000
	Left	0.00	0	0	0.000 *		
Eastbound	Right	1.00	1,600	641	0.401 *	ICU:	0.817
	Through	2.00	3,200	565	0.177		
	Left	0.00	0	0	0.000	LOS:	D

* Critical Movement

FUTURE WITHOUT PROJECT CONDITIONS (YEAR 2021)

CSULA STUDENT HOUSING PROJECT

Intersection Capacity Utilization Analysis

12. I-710 NORTHBOUND OFF-RAMP & VALLEY BOULEVARD

Through Lane Capacity: 1600 vph
Left-Turn Lane Capacity: 1600 vph
Double-Left Penalty: 10 %
Right-Turn on Red: 50 %
Overlapping Right Turn:

North/South Split Phase: N
East/West Split Phase: N
Loss Time % per Cycle: 10%
ITS Percentage: 0%

WEEKDAY MORNING PEAK HOUR

Approach	Movement	Lanes	Capacity	Volume	V/C	ICU Analysis	
Southbound	Right	0.50	0	0	0.000	N/S 1:	0.313
	Through	0.00	0	0	0.000 *	N/S 2:	0.346 *
	Left	0.50	1,600	1	0.001	E/W 1:	0.087
Westbound	Right	0.50	0	5	0.000	E/W 2:	0.358 *
	Through	3.50	6,400	2,279	0.357 *		
	Left	0.00	0	0	0.000	V/C Ratio:	0.704
Northbound	Right	1.33	2,750	857	0.312	Loss Time:	0.100
	Through	0.34	13	4	0.312	ITS:	0.000
	Left	1.33	1,834	635	0.346 *		
Eastbound	Right	0.00	0	0	0.000	ICU:	0.804
	Through	2.00	3,200	276	0.087		
	Left	0.00	1,600	1	0.001 *	LOS:	D

WEEKDAY AFTERNOON PEAK HOUR

Approach	Movement	Lanes	Capacity	Volume	V/C	ICU Analysis	
Southbound	Right	0.50	1,600	5	0.003	N/S 1:	0.437 *
	Through	0.00	0	0	0.000	N/S 2:	0.389
	Left	0.50	0	0	0.000 *	E/W 1:	0.187
Westbound	Right	0.50	0	0	0.000	E/W 2:	0.204 *
	Through	3.50	6,400	1,304	0.204 *		
	Left	0.00	0	0	0.000	V/C Ratio:	0.641
Northbound	Right	1.33	3,198	1,397	0.437	Loss Time:	0.100
	Through	0.34	2	1	0.437 *	ITS:	0.000
	Left	1.33	1,600	618	0.386		
Eastbound	Right	0.00	0	0	0.000	ICU:	0.741
	Through	2.00	3,200	597	0.187		
	Left	0.00	0	0	0.000 *	LOS:	C

* Critical Movement

FUTURE WITHOUT PROJECT CONDITIONS (YEAR 2021)

CSULA STUDENT HOUSING PROJECT

Intersection Capacity Utilization Analysis

13. FREMONT AVENUE & VALLEY BOULEVARD

Through Lane Capacity:	1600 vph		North/South Split Phase:	N
Left-Turn Lane Capacity:	1600 vph		East/West Split Phase:	N
Double-Left Penalty:	10 %		Loss Time % per Cycle:	10%
Right-Turn on Red:	50 %		ITS Percentage:	0%
Overlapping Right Turn:	S,E			

WEEKDAY MORNING PEAK HOUR

Approach	Movement	Lanes	Capacity	Volume	V/C		ICU Analysis		
	Right	2.00	3,200	1,348	0.039		N/S 1:	0.393	*
Southbound	Through	2.00	3,200	855	0.267		N/S 2:	0.295	
	Left	1.00	1,600	102	0.064	*	E/W 1:	0.183	
	Right	1.00	1,600	238	0.117		E/W 2:	0.667	*
Westbound	Through	2.00	3,200	912	0.285	*			
	Left	1.00	1,600	61	0.038		V/C Ratio:	1.060	
	Right	0.50	0	18	0.000		Loss Time:	0.100	
Northbound	Through	1.50	3,200	1,036	0.329	*	ITS:	0.000	
	Left	1.00	1,600	45	0.028				
	Right	1.00	1,600	22	0.000		ICU:	1.160	
Eastbound	Through	2.00	3,200	464	0.145				
	Left	1.00	1,600	611	0.382	*	LOS:	F	

WEEKDAY AFTERNOON PEAK HOUR

Approach	Movement	Lanes	Capacity	Volume	V/C		ICU Analysis		
	Right	2.00	3,200	869	0.045		N/S 1:	0.413	*
Southbound	Through	2.00	3,200	1,134	0.354		N/S 2:	0.377	
	Left	1.00	1,600	231	0.144	*	E/W 1:	0.399	
	Right	1.00	1,600	403	0.180	*	E/W 2:	0.633	*
Westbound	Through	2.00	3,200	410	0.128				
	Left	1.00	1,600	115	0.072		V/C Ratio:	1.046	
	Right	0.50	0	22	0.000		Loss Time:	0.100	
Northbound	Through	1.50	3,200	840	0.269	*	ITS:	0.000	
	Left	1.00	1,600	37	0.023				
	Right	1.00	1,600	45	0.017		ICU:	1.146	
Eastbound	Through	2.00	3,200	1,047	0.327				
	Left	1.00	1,600	724	0.453	*	LOS:	F	

* Critical Movement

FUTURE WITH PROJECT CONDITIONS (YEAR 2021)

CSULA STUDENT HOUSING PROJECT

Intersection Capacity Utilization Analysis

11. I-710 SOUTHBOUND ON-RAMP & VALLEY BOULEVARD

Through Lane Capacity:	1600 vph		North/South Split Phase:	N
Left-Turn Lane Capacity:	1600 vph		East/West Split Phase:	N
Double-Left Penalty:	10 %		Loss Time % per Cycle:	10%
Right-Turn on Red:	50 %		ITS Percentage:	0%
Overlapping Right Turn:				

WEEKDAY MORNING PEAK HOUR

Approach	Movement	Lanes	Capacity	Volume	V/C	ICU Analysis	
	Right	0.00	0	0	0.000	N/S 1:	0.000 *
Southbound	Through	0.00	0	0	0.000 *	N/S 2:	0.000
	Left	0.00	0	0	0.000 *	E/W 1:	0.954 *
	Right	0.00	0	0	0.000	E/W 2:	0.389
Westbound	Through	2.00	3,200	1,246	0.389		
	Left	2.00	2,880	1,651	0.573 *	V/C Ratio:	0.954
	Right	0.00	0	0	0.000	Loss Time:	0.100
Northbound	Through	0.00	0	0	0.000 *	ITS:	0.000
	Left	0.00	0	0	0.000 *		
	Right	1.00	1,600	610	0.381 *	ICU:	1.054
Eastbound	Through	2.00	3,200	256	0.080		
	Left	0.00	0	0	0.000	LOS:	F

WEEKDAY AFTERNOON PEAK HOUR

Approach	Movement	Lanes	Capacity	Volume	V/C	ICU Analysis	
	Right	0.00	0	0	0.000	N/S 1:	0.000 *
Southbound	Through	0.00	0	0	0.000 *	N/S 2:	0.000
	Left	0.00	0	0	0.000 *	E/W 1:	0.706 *
	Right	0.00	0	0	0.000	E/W 2:	0.354
Westbound	Through	2.00	3,200	1,132	0.354		
	Left	2.00	2,880	909	0.316 *	V/C Ratio:	0.706
	Right	0.00	0	0	0.000	Loss Time:	0.100
Northbound	Through	0.00	0	0	0.000 *	ITS:	0.000
	Left	0.00	0	0	0.000 *		
	Right	1.00	1,600	624	0.390 *	ICU:	0.806
Eastbound	Through	2.00	3,200	556	0.174		
	Left	0.00	0	0	0.000	LOS:	D

* Critical Movement

FUTURE WITH PROJECT CONDITIONS (YEAR 2021)

CSULA STUDENT HOUSING PROJECT

Intersection Capacity Utilization Analysis

12. I-710 NORTHBOUND OFF-RAMP & VALLEY BOULEVARD

Through Lane Capacity: 1600 vph
Left-Turn Lane Capacity: 1600 vph
Double-Left Penalty: 10 %
Right-Turn on Red: 50 %
Overlapping Right Turn:

North/South Split Phase: N
East/West Split Phase: N
Loss Time % per Cycle: 10%
ITS Percentage: 0%

WEEKDAY MORNING PEAK HOUR

Approach	Movement	Lanes	Capacity	Volume	V/C	ICU Analysis	
Southbound	Right	0.50	0	0	0.000	N/S 1:	0.306
	Through	0.00	0	0	0.000 *	N/S 2:	0.338 *
	Left	0.50	1,600	1	0.001	E/W 1:	0.086
Westbound	Right	0.50	0	5	0.000	E/W 2:	0.356 *
	Through	3.50	6,400	2,268	0.355 *		
	Left	0.00	0	0	0.000	V/C Ratio:	0.694
Northbound	Right	1.33	2,814	857	0.305	Loss Time:	0.100
	Through	0.34	13	4	0.305	ITS:	0.000
	Left	1.33	1,776	601	0.338 *		
Eastbound	Right	0.00	0	0	0.000	ICU:	0.794
	Through	2.00	3,200	273	0.086		
	Left	0.00	1,600	1	0.001 *	LOS:	C

WEEKDAY AFTERNOON PEAK HOUR

Approach	Movement	Lanes	Capacity	Volume	V/C	ICU Analysis	
Southbound	Right	0.50	1,600	5	0.003	N/S 1:	0.437 *
	Through	0.00	0	0	0.000	N/S 2:	0.382
	Left	0.50	0	0	0.000 *	E/W 1:	0.184
Westbound	Right	0.50	0	0	0.000	E/W 2:	0.203 *
	Through	3.50	6,400	1,300	0.203 *		
	Left	0.00	0	0	0.000	V/C Ratio:	0.640
Northbound	Right	1.33	3,198	1,397	0.437	Loss Time:	0.100
	Through	0.34	2	1	0.437 *	ITS:	0.000
	Left	1.33	1,600	606	0.379		
Eastbound	Right	0.00	0	0	0.000	ICU:	0.740
	Through	2.00	3,200	588	0.184		
	Left	0.00	0	0	0.000 *	LOS:	C

* Critical Movement

FUTURE WITH PROJECT CONDITIONS (YEAR 2021)

CSULA STUDENT HOUSING PROJECT

Intersection Capacity Utilization Analysis

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13. FREMONT AVENUE & VALLEY BOULEVARD

Through Lane Capacity:	1600 vph		North/South Split Phase:	N
Left-Turn Lane Capacity:	1600 vph		East/West Split Phase:	N
Double-Left Penalty:	10 %		Loss Time % per Cycle:	10%
Right-Turn on Red:	50 %		ITS Percentage:	0%
Overlapping Right Turn:	S,E			

WEEKDAY MORNING PEAK HOUR

Approach	Movement	Lanes	Capacity	Volume	V/C	ICU Analysis	
Southbound	Right	2.00	3,200	1,343	0.039	N/S 1:	0.393 *
	Through	2.00	3,200	855	0.267	N/S 2:	0.295
	Left	1.00	1,600	102	0.064 *	E/W 1:	0.182
Westbound	Right	1.00	1,600	238	0.117	E/W 2:	0.664 *
	Through	2.00	3,200	906	0.283 *		
	Left	1.00	1,600	61	0.038	V/C Ratio:	1.057
Northbound	Right	0.50	0	18	0.000	Loss Time:	0.100
	Through	1.50	3,200	1,036	0.329 *	ITS:	0.000
	Left	1.00	1,600	45	0.028		
Eastbound	Right	1.00	1,600	22	0.000	ICU:	1.157
	Through	2.00	3,200	462	0.144		
	Left	1.00	1,600	609	0.381 *	LOS:	F

WEEKDAY AFTERNOON PEAK HOUR

Approach	Movement	Lanes	Capacity	Volume	V/C	ICU Analysis	
Southbound	Right	2.00	3,200	867	0.046	N/S 1:	0.413 *
	Through	2.00	3,200	1,134	0.354	N/S 2:	0.377
	Left	1.00	1,600	231	0.144 *	E/W 1:	0.398
Westbound	Right	1.00	1,600	403	0.180 *	E/W 2:	0.630 *
	Through	2.00	3,200	408	0.128		
	Left	1.00	1,600	115	0.072	V/C Ratio:	1.043
Northbound	Right	0.50	0	22	0.000	Loss Time:	0.100
	Through	1.50	3,200	840	0.269 *	ITS:	0.000
	Left	1.00	1,600	37	0.023		
Eastbound	Right	1.00	1,600	45	0.017	ICU:	1.143
	Through	2.00	3,200	1,042	0.326		
	Left	1.00	1,600	720	0.450 *	LOS:	F

* Critical Movement

Intersection	
Intersection Delay, s/veh	41.3
Intersection LOS	E

Movement	WBU	WBL	WBR	NBU	NBT	NBR	SBU	SBL	SBT
Vol, veh/h	0	377	19	0	450	906	0	4	1
Peak Hour Factor	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92
Heavy Vehicles, %	2	2	2	2	2	2	2	2	2
Mvmt Flow	0	410	21	0	489	985	0	4	1
Number of Lanes	0	2	0	0	1	1	0	0	2

Approach	WB	NB	SB
Opposing Approach		SB	NB
Opposing Lanes	0	2	2
Conflicting Approach Left	NB		WB
Conflicting Lanes Left	2	0	2
Conflicting Approach Right	SB	WB	
Conflicting Lanes Right	2	2	0
HCM Control Delay	17.5	48.3	10.6
HCM LOS	C	E	B

Lane	NBLn1	NBLn2	WBLn1	WBLn2	SBLn1	SBLn2
Vol Left, %	0%	0%	100%	87%	92%	0%
Vol Thru, %	100%	0%	0%	0%	8%	100%
Vol Right, %	0%	100%	0%	13%	0%	0%
Sign Control	Stop	Stop	Stop	Stop	Stop	Stop
Traffic Vol by Lane	450	906	251	145	4	1
LT Vol	0	0	251	126	4	0
Through Vol	450	0	0	0	0	1
RT Vol	0	906	0	19	0	0
Lane Flow Rate	489	985	273	157	5	1
Geometry Grp	7	7	7	7	7	7
Degree of Util (X)	0.817	1	0.568	0.32	0.01	0.002
Departure Headway (Hd)	6.015	5.306	7.482	7.325	7.925	7.463
Convergence, Y/N	Yes	Yes	Yes	Yes	Yes	Yes
Cap	597	689	481	489	454	482
Service Time	3.783	3.074	5.265	5.108	5.625	5.163
HCM Lane V/C Ratio	0.819	1.43	0.568	0.321	0.011	0.002
HCM Control Delay	30.3	57.3	19.7	13.6	10.7	10.2
HCM Lane LOS	D	F	C	B	B	B
HCM 95th-tile Q	8.3	15.8	3.5	1.4	0	0

Intersection	
Intersection Delay, s/veh	13.1
Intersection LOS	B

Movement	WBU	WBL	WBR	NBU	NBT	NBR	SBU	SBL	SBT
Vol, veh/h	0	33	85	0	532	152	0	132	249
Peak Hour Factor	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92
Heavy Vehicles, %	2	2	2	2	2	2	2	2	2
Mvmt Flow	0	36	92	0	578	165	0	143	271
Number of Lanes	0	1	1	0	2	0	0	0	2

Approach	WB	NB	SB
Opposing Approach		SB	NB
Opposing Lanes	0	2	2
Conflicting Approach Left	NB		WB
Conflicting Lanes Left	2	0	2
Conflicting Approach Right	SB	WB	
Conflicting Lanes Right	2	2	0
HCM Control Delay	10.5	14.2	12
HCM LOS	B	B	B

Lane	NBLn1	NBLn2	WBLn1	WBLn2	SBLn1	SBLn2
Vol Left, %	0%	0%	100%	0%	61%	0%
Vol Thru, %	100%	54%	0%	0%	39%	100%
Vol Right, %	0%	46%	0%	100%	0%	0%
Sign Control	Stop	Stop	Stop	Stop	Stop	Stop
Traffic Vol by Lane	355	329	33	85	215	166
LT Vol	0	0	33	0	132	0
Through Vol	355	177	0	0	83	166
RT Vol	0	152	0	85	0	0
Lane Flow Rate	386	358	36	92	234	180
Geometry Grp	7	7	7	7	7	7
Degree of Util (X)	0.576	0.503	0.075	0.163	0.397	0.291
Departure Headway (Hd)	5.498	5.172	7.566	6.345	6.119	5.808
Convergence, Y/N	Yes	Yes	Yes	Yes	Yes	Yes
Cap	659	702	476	567	591	621
Service Time	3.198	2.872	5.28	4.06	3.829	3.519
HCM Lane V/C Ratio	0.586	0.51	0.076	0.162	0.396	0.29
HCM Control Delay	15.4	13	10.9	10.3	12.8	10.9
HCM Lane LOS	C	B	B	B	B	B
HCM 95th-tile Q	3.7	2.8	0.2	0.6	1.9	1.2

Intersection	
Intersection Delay, s/veh	14.2
Intersection LOS	B

Movement	EBU	EBL	EBT	EBR	WBU	WBL	WBT	WBR	NBU	NBL	NBT	NBR
Vol, veh/h	0	51	227	5	0	3	104	35	0	77	76	8
Peak Hour Factor	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92
Heavy Vehicles, %	2	2	2	2	2	2	2	2	2	2	2	2
Mvmt Flow	0	55	247	5	0	3	113	38	0	84	83	9
Number of Lanes	0	1	1	0	0	1	1	1	0	0	2	0

Approach	EB	WB	NB
Opposing Approach	WB	EB	SB
Opposing Lanes	3	2	3
Conflicting Approach Left	SB	NB	EB
Conflicting Lanes Left	3	2	2
Conflicting Approach Right	NB	SB	WB
Conflicting Lanes Right	2	3	3
HCM Control Delay	16.1	12.2	12.8
HCM LOS	C	B	B

Lane	NBLn1	NBLn2	EBLn1	EBLn2	WBLn1	WBLn2	WBLn3	SBLn1	SBLn2	SBLn3
Vol Left, %	67%	0%	100%	0%	100%	0%	0%	70%	0%	0%
Vol Thru, %	33%	83%	0%	98%	0%	100%	0%	30%	100%	0%
Vol Right, %	0%	17%	0%	2%	0%	0%	100%	0%	0%	100%
Sign Control	Stop	Stop	Stop	Stop	Stop	Stop	Stop	Stop	Stop	Stop
Traffic Vol by Lane	115	46	51	232	3	104	35	226	133	84
LT Vol	77	0	51	0	3	0	0	159	0	0
Through Vol	38	38	0	227	0	104	0	67	133	0
RT Vol	0	8	0	5	0	0	35	0	0	84
Lane Flow Rate	125	50	55	252	3	113	38	245	145	91
Geometry Grp	8	8	8	8	8	8	8	8	8	8
Degree of Util (X)	0.273	0.103	0.119	0.504	0.007	0.242	0.074	0.491	0.276	0.156
Departure Headway (Hd)	7.851	7.388	7.714	7.192	8.208	7.699	6.986	7.209	6.853	6.144
Convergence, Y/N	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes
Cap	458	485	465	502	436	467	512	500	525	583
Service Time	5.596	5.133	5.453	4.931	5.955	5.446	4.733	4.947	4.591	3.883
HCM Lane V/C Ratio	0.273	0.103	0.118	0.502	0.007	0.242	0.074	0.49	0.276	0.156
HCM Control Delay	13.5	11	11.5	17.1	11	12.9	10.3	16.7	12.2	10
HCM Lane LOS	B	B	B	C	B	B	B	C	B	A
HCM 95th-tile Q	1.1	0.3	0.4	2.8	0	0.9	0.2	2.7	1.1	0.5

Intersection
Intersection Delay, s/veh
Intersection LOS

Movement	SBU	SBL	SBT	SBR
Vol, veh/h	0	159	200	84
Peak Hour Factor	0.92	0.92	0.92	0.92
Heavy Vehicles, %	2	2	2	2
Mvmt Flow	0	173	217	91
Number of Lanes	0	0	2	1

Approach	SB
Opposing Approach	NB
Opposing Lanes	2
Conflicting Approach Left	WB
Conflicting Lanes Left	3
Conflicting Approach Right	EB
Conflicting Lanes Right	2
HCM Control Delay	14.1
HCM LOS	B

Lane

Intersection	
Intersection Delay, s/veh	34.3
Intersection LOS	D

Movement	WBU	WBL	WBR	NBU	NBT	NBR	SBU	SBL	SBT
Vol, veh/h	0	625	31	0	260	495	0	7	2
Peak Hour Factor	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92
Heavy Vehicles, %	2	2	2	2	2	2	2	2	2
Mvmt Flow	0	679	34	0	283	538	0	8	2
Number of Lanes	0	2	0	0	1	1	0	0	2

Approach	WB	NB	SB
Opposing Approach		SB	NB
Opposing Lanes	0	2	2
Conflicting Approach Left	NB		WB
Conflicting Lanes Left	2	0	2
Conflicting Approach Right	SB	WB	
Conflicting Lanes Right	2	2	0
HCM Control Delay	36.4	32.8	11.3
HCM LOS	E	D	B

Lane	NBLn1	NBLn2	WBLn1	WBLn2	SBLn1	SBLn2
Vol Left, %	0%	0%	100%	87%	91%	0%
Vol Thru, %	100%	0%	0%	0%	9%	100%
Vol Right, %	0%	100%	0%	13%	0%	0%
Sign Control	Stop	Stop	Stop	Stop	Stop	Stop
Traffic Vol by Lane	260	495	417	239	8	1
LT Vol	0	0	417	208	7	0
Through Vol	260	0	0	0	1	1
RT Vol	0	495	0	31	0	0
Lane Flow Rate	283	538	453	260	8	1
Geometry Grp	7	7	7	7	7	7
Degree of Util (X)	0.53	0.902	0.908	0.51	0.02	0.003
Departure Headway (Hd)	6.747	6.035	7.215	7.058	8.442	7.97
Convergence, Y/N	Yes	Yes	Yes	Yes	Yes	Yes
Cap	534	597	503	510	422	446
Service Time	4.509	3.797	4.962	4.805	6.236	5.764
HCM Lane V/C Ratio	0.53	0.901	0.901	0.51	0.019	0.002
HCM Control Delay	16.9	41.2	47.5	17	11.4	10.8
HCM Lane LOS	C	E	E	C	B	B
HCM 95th-tile Q	3.1	11	10.5	2.9	0.1	0

Intersection	
Intersection Delay, s/veh	17
Intersection LOS	C

Movement	WBU	WBL	WBR	NBU	NBT	NBR	SBU	SBL	SBT
Vol, veh/h	0	114	140	0	557	114	0	109	374
Peak Hour Factor	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92
Heavy Vehicles, %	2	2	2	2	2	2	2	2	2
Mvmt Flow	0	124	152	0	605	124	0	118	407
Number of Lanes	0	1	1	0	2	0	0	0	2

Approach	WB	NB	SB
Opposing Approach		SB	NB
Opposing Lanes	0	2	2
Conflicting Approach Left	NB		WB
Conflicting Lanes Left	2	0	2
Conflicting Approach Right	SB	WB	
Conflicting Lanes Right	2	2	0
HCM Control Delay	12.9	19.7	15.5
HCM LOS	B	C	C

Lane	NBLn1	NBLn2	WBLn1	WBLn2	SBLn1	SBLn2
Vol Left, %	0%	0%	100%	0%	47%	0%
Vol Thru, %	100%	62%	0%	0%	53%	100%
Vol Right, %	0%	38%	0%	100%	0%	0%
Sign Control	Stop	Stop	Stop	Stop	Stop	Stop
Traffic Vol by Lane	371	300	114	140	234	249
LT Vol	0	0	114	0	109	0
Through Vol	371	186	0	0	125	249
RT Vol	0	114	0	140	0	0
Lane Flow Rate	404	326	124	152	254	271
Geometry Grp	7	7	7	7	7	7
Degree of Util (X)	0.705	0.544	0.273	0.284	0.476	0.49
Departure Headway (Hd)	6.284	6.013	7.945	6.72	6.746	6.509
Convergence, Y/N	Yes	Yes	Yes	Yes	Yes	Yes
Cap	573	596	451	533	531	550
Service Time	4.048	3.777	5.718	4.492	4.518	4.28
HCM Lane V/C Ratio	0.705	0.547	0.275	0.285	0.478	0.493
HCM Control Delay	22.8	15.8	13.7	12.2	15.6	15.4
HCM Lane LOS	C	C	B	B	C	C
HCM 95th-tile Q	5.6	3.3	1.1	1.2	2.5	2.7

Intersection	
Intersection Delay, s/veh	21.5
Intersection LOS	C

Movement	EBU	EBL	EBT	EBR	WBU	WBL	WBT	WBR	NBU	NBL	NBT	NBR
Vol, veh/h	0	93	156	5	0	6	175	151	0	209	207	7
Peak Hour Factor	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92
Heavy Vehicles, %	2	2	2	2	2	2	2	2	2	2	2	2
Mvmt Flow	0	101	170	5	0	7	190	164	0	227	225	8
Number of Lanes	0	1	1	0	0	1	1	1	0	0	2	0

Approach	EB	WB	NB
Opposing Approach	WB	EB	SB
Opposing Lanes	3	2	3
Conflicting Approach Left	SB	NB	EB
Conflicting Lanes Left	3	2	2
Conflicting Approach Right	NB	SB	WB
Conflicting Lanes Right	2	3	3
HCM Control Delay	17.1	17.1	32.5
HCM LOS	C	C	D

Lane	NBLn1	NBLn2	EBLn1	EBLn2	WBLn1	WBLn2	WBLn3	SBLn1	SBLn2	SBLn3
Vol Left, %	67%	0%	100%	0%	100%	0%	0%	63%	0%	0%
Vol Thru, %	33%	94%	0%	97%	0%	100%	0%	37%	100%	0%
Vol Right, %	0%	6%	0%	3%	0%	0%	100%	0%	0%	100%
Sign Control	Stop	Stop	Stop	Stop	Stop	Stop	Stop	Stop	Stop	Stop
Traffic Vol by Lane	313	111	93	161	6	175	151	121	90	91
LT Vol	209	0	93	0	6	0	0	76	0	0
Through Vol	104	104	0	156	0	175	0	45	90	0
RT Vol	0	7	0	5	0	0	151	0	0	91
Lane Flow Rate	340	120	101	175	7	190	164	132	98	99
Geometry Grp	8	8	8	8	8	8	8	8	8	8
Degree of Util (X)	0.81	0.273	0.263	0.43	0.017	0.461	0.365	0.333	0.239	0.222
Departure Headway (Hd)	8.583	8.197	9.372	8.836	9.246	8.732	8.012	9.11	8.787	8.066
Convergence, Y/N	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes
Cap	421	438	383	408	387	413	448	395	409	445
Service Time	6.33	5.944	7.125	6.589	6.998	6.484	5.764	6.861	6.537	5.816
HCM Lane V/C Ratio	0.808	0.274	0.264	0.429	0.018	0.46	0.366	0.334	0.24	0.222
HCM Control Delay	39.1	14	15.5	18.1	12.2	18.8	15.3	16.4	14.3	13.1
HCM Lane LOS	E	B	C	C	B	C	C	C	B	B
HCM 95th-tile Q	7.3	1.1	1	2.1	0.1	2.4	1.6	1.4	0.9	0.8

Intersection	
Intersection Delay, s/veh	
Intersection LOS	

Movement	SBU	SBL	SBT	SBR
Vol, veh/h	0	76	135	91
Peak Hour Factor	0.92	0.92	0.92	0.92
Heavy Vehicles, %	2	2	2	2
Mvmt Flow	0	83	147	99
Number of Lanes	0	0	2	1

Approach	SB
Opposing Approach	NB
Opposing Lanes	2
Conflicting Approach Left	WB
Conflicting Lanes Left	3
Conflicting Approach Right	EB
Conflicting Lanes Right	2
HCM Control Delay	14.8
HCM LOS	B

Lane

HCM 2010 AWSC
4: Campus Road & Circle Drive

12/1/2016

Intersection	
Intersection Delay, s/veh	40.9
Intersection LOS	E

Movement	WBU	WBL	WBR	NBU	NBT	NBR	SBU	SBL	SBT
Vol, veh/h	0	367	19	0	450	888	0	4	0
Peak Hour Factor	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92
Heavy Vehicles, %	2	2	2	2	2	2	2	2	2
Mvmt Flow	0	399	21	0	489	965	0	4	0
Number of Lanes	0	2	0	0	1	1	0	0	2

Approach	WB	NB	SB
Opposing Approach		SB	NB
Opposing Lanes	0	2	2
Conflicting Approach Left	NB		WB
Conflicting Lanes Left	2	0	2
Conflicting Approach Right	SB	WB	
Conflicting Lanes Right	2	2	0
HCM Control Delay	17.1	47.8	10.7
HCM LOS	C	E	B

Lane	NBLn1	NBLn2	WBLn1	WBLn2	SBLn1	SBLn2
Vol Left, %	0%	0%	100%	87%	100%	0%
Vol Thru, %	100%	0%	0%	0%	0%	100%
Vol Right, %	0%	100%	0%	13%	0%	0%
Sign Control	Stop	Stop	Stop	Stop	Stop	Stop
Traffic Vol by Lane	450	888	245	141	4	0
LT Vol	0	0	245	122	4	0
Through Vol	450	0	0	0	0	0
RT Vol	0	888	0	19	0	0
Lane Flow Rate	489	965	266	154	4	0
Geometry Grp	7	7	7	7	7	7
Degree of Util (X)	0.811	1	0.552	0.312	0.01	0
Departure Headway (Hd)	5.97	5.263	7.477	7.316	7.923	7.423
Convergence, Y/N	Yes	Yes	Yes	Yes	Yes	Yes
Cap	602	695	481	489	454	0
Service Time	3.734	3.026	5.259	5.098	5.623	5.123
HCM Lane V/C Ratio	0.812	1.388	0.553	0.315	0.009	0
HCM Control Delay	29.5	57	19.2	13.4	10.7	10.1
HCM Lane LOS	D	F	C	B	B	N
HCM 95th-tile Q	8.2	15.9	3.3	1.3	0	0

Intersection	
Intersection Delay, s/veh	12.8
Intersection LOS	B

Movement	WBU	WBL	WBR	NBU	NBT	NBR	SBU	SBL	SBT
Vol, veh/h	0	31	85	0	517	145	0	132	247
Peak Hour Factor	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92
Heavy Vehicles, %	2	2	2	2	2	2	2	2	2
Mvmt Flow	0	34	92	0	562	158	0	143	268
Number of Lanes	0	1	1	0	2	0	0	0	2

Approach	WB	NB	SB
Opposing Approach		SB	NB
Opposing Lanes	0	2	2
Conflicting Approach Left	NB		WB
Conflicting Lanes Left	2	0	2
Conflicting Approach Right	SB	WB	
Conflicting Lanes Right	2	2	0
HCM Control Delay	10.4	13.8	11.9
HCM LOS	B	B	B

Lane	NBLn1	NBLn2	WBLn1	WBLn2	SBLn1	SBLn2
Vol Left, %	0%	0%	100%	0%	62%	0%
Vol Thru, %	100%	54%	0%	0%	38%	100%
Vol Right, %	0%	46%	0%	100%	0%	0%
Sign Control	Stop	Stop	Stop	Stop	Stop	Stop
Traffic Vol by Lane	345	317	31	85	214	165
LT Vol	0	0	31	0	132	0
Through Vol	345	172	0	0	82	165
RT Vol	0	145	0	85	0	0
Lane Flow Rate	375	345	34	92	233	179
Geometry Grp	7	7	7	7	7	7
Degree of Util (X)	0.558	0.483	0.07	0.162	0.393	0.287
Departure Headway (Hd)	5.479	5.156	7.519	6.3	6.075	5.764
Convergence, Y/N	Yes	Yes	Yes	Yes	Yes	Yes
Cap	663	704	478	572	594	626
Service Time	3.179	2.856	5.233	4.013	3.786	3.474
HCM Lane V/C Ratio	0.566	0.49	0.071	0.161	0.392	0.286
HCM Control Delay	14.9	12.6	10.8	10.2	12.7	10.8
HCM Lane LOS	B	B	B	B	B	B
HCM 95th-tile Q	3.5	2.6	0.2	0.6	1.9	1.2

Intersection	
Intersection Delay, s/veh	13.2
Intersection LOS	B

Movement	EBU	EBL	EBT	EBR	WBU	WBL	WBT	WBR	NBU	NBL	NBT	NBR
Vol, veh/h	0	46	224	5	0	4	102	30	0	77	71	8
Peak Hour Factor	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92
Heavy Vehicles, %	2	2	2	2	2	2	2	2	2	2	2	2
Mvmt Flow	0	50	243	5	0	4	111	33	0	84	77	9
Number of Lanes	0	1	1	0	0	1	1	1	0	0	2	0

Approach	EB	WB	NB
Opposing Approach	WB	EB	SB
Opposing Lanes	3	2	3
Conflicting Approach Left	SB	NB	EB
Conflicting Lanes Left	3	2	2
Conflicting Approach Right	NB	SB	WB
Conflicting Lanes Right	2	3	3
HCM Control Delay	14.9	11.7	12.3
HCM LOS	B	B	B

Lane	NBLn1	NBLn2	EBLn1	EBLn2	WBLn1	WBLn2	WBLn3	SBLn1	SBLn2	SBLn3
Vol Left, %	68%	0%	100%	0%	100%	0%	0%	71%	0%	0%
Vol Thru, %	32%	82%	0%	98%	0%	100%	0%	29%	100%	0%
Vol Right, %	0%	18%	0%	2%	0%	0%	100%	0%	0%	100%
Sign Control	Stop	Stop	Stop	Stop	Stop	Stop	Stop	Stop	Stop	Stop
Traffic Vol by Lane	113	44	46	229	4	102	30	200	115	67
LT Vol	77	0	46	0	4	0	0	143	0	0
Through Vol	36	36	0	224	0	102	0	57	115	0
RT Vol	0	8	0	5	0	0	30	0	0	67
Lane Flow Rate	122	47	50	249	4	111	33	218	125	73
Geometry Grp	8	8	8	8	8	8	8	8	8	8
Degree of Util (X)	0.258	0.093	0.102	0.473	0.01	0.228	0.061	0.423	0.229	0.12
Departure Headway (Hd)	7.591	7.114	7.47	6.949	7.917	7.408	6.697	7.092	6.732	6.024
Convergence, Y/N	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes
Cap	476	506	483	523	454	487	537	512	537	599
Service Time	5.3	4.823	5.17	4.649	5.626	5.118	4.406	4.792	4.432	3.724
HCM Lane V/C Ratio	0.256	0.093	0.104	0.476	0.009	0.228	0.061	0.426	0.233	0.122
HCM Control Delay	12.9	10.6	11	15.7	10.7	12.3	9.8	14.9	11.4	9.5
HCM Lane LOS	B	B	B	C	B	B	A	B	B	A
HCM 95th-tile Q	1	0.3	0.3	2.5	0	0.9	0.2	2.1	0.9	0.4

Intersection	
Intersection Delay, s/veh	
Intersection LOS	

Movement	SBU	SBL	SBT	SBR
Vol, veh/h	0	143	172	67
Peak Hour Factor	0.92	0.92	0.92	0.92
Heavy Vehicles, %	2	2	2	2
Mvmt Flow	0	155	187	73
Number of Lanes	0	0	2	1

Approach	SB
Opposing Approach	NB
Opposing Lanes	2
Conflicting Approach Left	WB
Conflicting Lanes Left	3
Conflicting Approach Right	EB
Conflicting Lanes Right	2
HCM Control Delay	12.9
HCM LOS	B

Lane

Intersection	
Intersection Delay, s/veh	31
Intersection LOS	D

Movement	WBU	WBL	WBR	NBU	NBT	NBR	SBU	SBL	SBT
Vol, veh/h	0	600	31	0	260	489	0	7	0
Peak Hour Factor	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92
Heavy Vehicles, %	2	2	2	2	2	2	2	2	2
Mvmt Flow	0	652	34	0	283	532	0	8	0
Number of Lanes	0	2	0	0	1	1	0	0	2

Approach	WB	NB	SB
Opposing Approach		SB	NB
Opposing Lanes	0	2	2
Conflicting Approach Left	NB		WB
Conflicting Lanes Left	2	0	2
Conflicting Approach Right	SB	WB	
Conflicting Lanes Right	2	2	0
HCM Control Delay	32.3	30	11.3
HCM LOS	D	D	B

Lane	NBLn1	NBLn2	WBLn1	WBLn2	SBLn1	SBLn2
Vol Left, %	0%	0%	100%	87%	100%	0%
Vol Thru, %	100%	0%	0%	0%	0%	100%
Vol Right, %	0%	100%	0%	13%	0%	0%
Sign Control	Stop	Stop	Stop	Stop	Stop	Stop
Traffic Vol by Lane	260	489	400	231	7	0
LT Vol	0	0	400	200	7	0
Through Vol	260	0	0	0	0	0
RT Vol	0	489	0	31	0	0
Lane Flow Rate	283	532	435	251	8	0
Geometry Grp	7	7	7	7	7	7
Degree of Util (X)	0.523	0.878	0.87	0.491	0.018	0
Departure Headway (Hd)	6.66	5.95	7.203	7.041	8.394	7.878
Convergence, Y/N	Yes	Yes	Yes	Yes	Yes	Yes
Cap	540	606	504	512	424	0
Service Time	4.419	3.709	4.947	4.785	6.183	5.667
HCM Lane V/C Ratio	0.524	0.878	0.863	0.49	0.019	0
HCM Control Delay	16.5	37.2	41.5	16.4	11.3	10.7
HCM Lane LOS	C	E	E	C	B	N
HCM 95th-tile Q	3	10.2	9.3	2.7	0.1	0

Intersection	
Intersection Delay, s/veh	16.6
Intersection LOS	C

Movement	WBU	WBL	WBR	NBU	NBT	NBR	SBU	SBL	SBT
Vol, veh/h	0	108	140	0	552	111	0	109	369
Peak Hour Factor	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92
Heavy Vehicles, %	2	2	2	2	2	2	2	2	2
Mvmt Flow	0	117	152	0	600	121	0	118	401
Number of Lanes	0	1	1	0	2	0	0	0	2

Approach	WB	NB	SB
Opposing Approach		SB	NB
Opposing Lanes	0	2	2
Conflicting Approach Left	NB		WB
Conflicting Lanes Left	2	0	2
Conflicting Approach Right	SB	WB	
Conflicting Lanes Right	2	2	0
HCM Control Delay	12.7	19.1	15.2
HCM LOS	B	C	C

Lane	NBLn1	NBLn2	WBLn1	WBLn2	SBLn1	SBLn2
Vol Left, %	0%	0%	100%	0%	47%	0%
Vol Thru, %	100%	62%	0%	0%	53%	100%
Vol Right, %	0%	38%	0%	100%	0%	0%
Sign Control	Stop	Stop	Stop	Stop	Stop	Stop
Traffic Vol by Lane	368	295	108	140	232	246
LT Vol	0	0	108	0	109	0
Through Vol	368	184	0	0	123	246
RT Vol	0	111	0	140	0	0
Lane Flow Rate	400	321	117	152	252	267
Geometry Grp	7	7	7	7	7	7
Degree of Util (X)	0.693	0.532	0.258	0.283	0.469	0.48
Departure Headway (Hd)	6.241	5.974	7.911	6.686	6.701	6.462
Convergence, Y/N	Yes	Yes	Yes	Yes	Yes	Yes
Cap	576	600	453	536	535	556
Service Time	4.005	3.737	5.681	4.455	4.471	4.232
HCM Lane V/C Ratio	0.694	0.535	0.258	0.284	0.471	0.48
HCM Control Delay	22	15.4	13.4	12.1	15.3	15.1
HCM Lane LOS	C	C	B	B	C	C
HCM 95th-tile Q	5.4	3.1	1	1.2	2.5	2.6

Intersection	
Intersection Delay, s/veh	19.5
Intersection LOS	C

Movement	EBU	EBL	EBT	EBR	WBU	WBL	WBT	WBR	NBU	NBL	NBT	NBR
Vol, veh/h	0	80	154	5	0	6	174	138	0	209	194	6
Peak Hour Factor	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92
Heavy Vehicles, %	2	2	2	2	2	2	2	2	2	2	2	2
Mvmt Flow	0	87	167	5	0	7	189	150	0	227	211	7
Number of Lanes	0	1	1	0	0	1	1	1	0	0	2	0

Approach	EB	WB	NB
Opposing Approach	WB	EB	SB
Opposing Lanes	3	2	3
Conflicting Approach Left	SB	NB	EB
Conflicting Lanes Left	3	2	2
Conflicting Approach Right	NB	SB	WB
Conflicting Lanes Right	2	3	3
HCM Control Delay	16.2	16	28
HCM LOS	C	C	D

Lane	NBLn1	NBLn2	EBLn1	EBLn2	WBLn1	WBLn2	WBLn3	SBLn1	SBLn2	SBLn3
Vol Left, %	68%	0%	100%	0%	100%	0%	0%	63%	0%	0%
Vol Thru, %	32%	94%	0%	97%	0%	100%	0%	37%	100%	0%
Vol Right, %	0%	6%	0%	3%	0%	0%	100%	0%	0%	100%
Sign Control	Stop	Stop	Stop	Stop	Stop	Stop	Stop	Stop	Stop	Stop
Traffic Vol by Lane	306	103	80	159	6	174	138	113	83	85
LT Vol	209	0	80	0	6	0	0	71	0	0
Through Vol	97	97	0	154	0	174	0	42	83	0
RT Vol	0	6	0	5	0	0	138	0	0	85
Lane Flow Rate	333	112	87	173	7	189	150	122	91	92
Geometry Grp	8	8	8	8	8	8	8	8	8	8
Degree of Util (X)	0.76	0.244	0.22	0.411	0.016	0.443	0.322	0.301	0.214	0.2
Departure Headway (Hd)	8.352	7.962	9.088	8.554	8.952	8.44	7.722	8.834	8.511	7.792
Convergence, Y/N	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes
Cap	436	453	397	422	401	427	467	408	423	462
Service Time	6.052	5.662	6.814	6.279	6.678	6.165	5.447	6.562	6.238	5.519
HCM Lane V/C Ratio	0.764	0.247	0.219	0.41	0.017	0.443	0.321	0.299	0.215	0.199
HCM Control Delay	33	13.2	14.4	17.1	11.8	17.7	14.1	15.3	13.5	12.5
HCM Lane LOS	D	B	B	C	B	C	B	C	B	B
HCM 95th-tile Q	6.4	0.9	0.8	2	0	2.2	1.4	1.2	0.8	0.7

Intersection	
Intersection Delay, s/veh	
Intersection LOS	

Movement	SBU	SBL	SBT	SBR
Vol, veh/h	0	71	125	85
Peak Hour Factor	0.92	0.92	0.92	0.92
Heavy Vehicles, %	2	2	2	2
Mvmt Flow	0	77	136	92
Number of Lanes	0	0	2	1

Approach	SB
Opposing Approach	NB
Opposing Lanes	2
Conflicting Approach Left	WB
Conflicting Lanes Left	3
Conflicting Approach Right	EB
Conflicting Lanes Right	2
HCM Control Delay	13.9
HCM LOS	B

Lane

Intersection	
Intersection Delay, s/veh	43.4
Intersection LOS	E

Movement	WBU	WBL	WBR	NBU	NBT	NBR	SBU	SBL	SBT
Vol, veh/h	0	396	20	0	473	952	0	4	1
Peak Hour Factor	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92
Heavy Vehicles, %	2	2	2	2	2	2	2	2	2
Mvmt Flow	0	430	22	0	514	1035	0	4	1
Number of Lanes	0	2	0	0	1	1	0	0	2

Approach	WB	NB	SB
Opposing Approach		SB	NB
Opposing Lanes	0	2	2
Conflicting Approach Left	NB		WB
Conflicting Lanes Left	2	0	2
Conflicting Approach Right	SB	WB	
Conflicting Lanes Right	2	2	0
HCM Control Delay	18.4	50.8	10.7
HCM LOS	C	F	B

Lane	NBLn1	NBLn2	WBLn1	WBLn2	SBLn1	SBLn2
Vol Left, %	0%	0%	100%	87%	92%	0%
Vol Thru, %	100%	0%	0%	0%	8%	100%
Vol Right, %	0%	100%	0%	13%	0%	0%
Sign Control	Stop	Stop	Stop	Stop	Stop	Stop
Traffic Vol by Lane	473	952	264	152	4	1
LT Vol	0	0	264	132	4	0
Through Vol	473	0	0	0	0	1
RT Vol	0	952	0	20	0	0
Lane Flow Rate	514	1035	287	165	5	1
Geometry Grp	7	7	7	7	7	7
Degree of Util (X)	0.87	1	0.599	0.338	0.011	0.002
Departure Headway (Hd)	6.094	5.385	7.514	7.357	8.033	7.57
Convergence, Y/N	Yes	Yes	Yes	Yes	Yes	Yes
Cap	591	673	476	486	448	476
Service Time	3.856	3.147	5.308	5.15	5.733	5.27
HCM Lane V/C Ratio	0.87	1.538	0.603	0.34	0.011	0.002
HCM Control Delay	36.8	57.7	21	13.9	10.8	10.3
HCM Lane LOS	E	F	C	B	B	B
HCM 95th-tile Q	9.9	15.7	3.9	1.5	0	0

HCM 2010 AWSC
8: Paseo Rancho Castilla & Circle Drive

Intersection	
Intersection Delay, s/veh	14.2
Intersection LOS	B

Movement	WBU	WBL	WBR	NBU	NBT	NBR	SBU	SBL	SBT
Vol, veh/h	0	35	89	0	559	160	0	139	262
Peak Hour Factor	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92
Heavy Vehicles, %	2	2	2	2	2	2	2	2	2
Mvmt Flow	0	38	97	0	608	174	0	151	285
Number of Lanes	0	1	1	0	2	0	0	0	2

Approach	WB	NB	SB
Opposing Approach		SB	NB
Opposing Lanes	0	2	2
Conflicting Approach Left	NB		WB
Conflicting Lanes Left	2	0	2
Conflicting Approach Right	SB	WB	
Conflicting Lanes Right	2	2	0
HCM Control Delay	10.7	15.7	12.5
HCM LOS	B	C	B

Lane	NBLn1	NBLn2	WBLn1	WBLn2	SBLn1	SBLn2
Vol Left, %	0%	0%	100%	0%	61%	0%
Vol Thru, %	100%	54%	0%	0%	39%	100%
Vol Right, %	0%	46%	0%	100%	0%	0%
Sign Control	Stop	Stop	Stop	Stop	Stop	Stop
Traffic Vol by Lane	373	346	35	89	226	175
LT Vol	0	0	35	0	139	0
Through Vol	373	186	0	0	87	175
RT Vol	0	160	0	89	0	0
Lane Flow Rate	405	376	38	97	246	190
Geometry Grp	7	7	7	7	7	7
Degree of Util (X)	0.624	0.546	0.081	0.174	0.424	0.311
Departure Headway (Hd)	5.545	5.219	7.68	6.459	6.211	5.9
Convergence, Y/N	Yes	Yes	Yes	Yes	Yes	Yes
Cap	652	693	467	555	581	609
Service Time	3.271	2.944	5.419	4.197	3.943	3.632
HCM Lane V/C Ratio	0.621	0.543	0.081	0.175	0.423	0.312
HCM Control Delay	17.1	14.1	11.1	10.6	13.5	11.3
HCM Lane LOS	C	B	B	B	B	B
HCM 95th-tile Q	4.4	3.3	0.3	0.6	2.1	1.3

Intersection	
Intersection Delay, s/veh	15.1
Intersection LOS	C

Movement	EBU	EBL	EBT	EBR	WBU	WBL	WBT	WBR	NBU	NBL	NBT	NBR
Vol, veh/h	0	54	239	5	0	3	109	37	0	81	80	8
Peak Hour Factor	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92
Heavy Vehicles, %	2	2	2	2	2	2	2	2	2	2	2	2
Mvmt Flow	0	59	260	5	0	3	118	40	0	88	87	9
Number of Lanes	0	1	1	0	0	1	1	1	0	0	2	0

Approach	EB	WB	NB
Opposing Approach	WB	EB	SB
Opposing Lanes	3	2	3
Conflicting Approach Left	SB	NB	EB
Conflicting Lanes Left	3	2	2
Conflicting Approach Right	NB	SB	WB
Conflicting Lanes Right	2	3	3
HCM Control Delay	17.3	12.7	13.3
HCM LOS	C	B	B

Lane	NBLn1	NBLn2	EBLn1	EBLn2	WBLn1	WBLn2	WBLn3	SBLn1	SBLn2	SBLn3
Vol Left, %	67%	0%	100%	0%	100%	0%	0%	70%	0%	0%
Vol Thru, %	33%	83%	0%	98%	0%	100%	0%	30%	100%	0%
Vol Right, %	0%	17%	0%	2%	0%	0%	100%	0%	0%	100%
Sign Control	Stop	Stop	Stop	Stop	Stop	Stop	Stop	Stop	Stop	Stop
Traffic Vol by Lane	121	48	54	244	3	109	37	237	140	88
LT Vol	81	0	54	0	3	0	0	167	0	0
Through Vol	40	40	0	239	0	109	0	70	140	0
RT Vol	0	8	0	5	0	0	37	0	0	88
Lane Flow Rate	132	52	59	265	3	118	40	258	152	96
Geometry Grp	8	8	8	8	8	8	8	8	8	8
Degree of Util (X)	0.294	0.11	0.129	0.542	0.008	0.26	0.08	0.528	0.297	0.168
Departure Headway (Hd)	8.054	7.595	7.884	7.362	8.421	7.911	7.196	7.374	7.017	6.308
Convergence, Y/N	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes
Cap	446	472	455	491	425	454	497	489	513	568
Service Time	5.808	5.349	5.629	5.107	6.176	5.666	4.951	5.117	4.76	4.05
HCM Lane V/C Ratio	0.296	0.11	0.13	0.54	0.007	0.26	0.08	0.528	0.296	0.169
HCM Control Delay	14.1	11.3	11.8	18.5	11.2	13.4	10.6	18.1	12.7	10.3
HCM Lane LOS	B	B	B	C	B	B	B	C	B	B
HCM 95th-tile Q	1.2	0.4	0.4	3.2	0	1	0.3	3	1.2	0.6

Intersection
Intersection Delay, s/veh
Intersection LOS

Movement	SBU	SBL	SBT	SBR
Vol, veh/h	0	167	210	88
Peak Hour Factor	0.92	0.92	0.92	0.92
Heavy Vehicles, %	2	2	2	2
Mvmt Flow	0	182	228	96
Number of Lanes	0	0	2	1

Approach	SB
Opposing Approach	NB
Opposing Lanes	2
Conflicting Approach Left	WB
Conflicting Lanes Left	3
Conflicting Approach Right	EB
Conflicting Lanes Right	2
HCM Control Delay	15
HCM LOS	B

Lane

Intersection	
Intersection Delay, s/veh	42.6
Intersection LOS	E

Movement	WBU	WBL	WBR	NBU	NBT	NBR	SBU	SBL	SBT
Vol, veh/h	0	657	33	0	273	520	0	7	2
Peak Hour Factor	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92
Heavy Vehicles, %	2	2	2	2	2	2	2	2	2
Mvmt Flow	0	714	36	0	297	565	0	8	2
Number of Lanes	0	2	0	0	1	1	0	0	2

Approach	WB	NB	SB
Opposing Approach		SB	NB
Opposing Lanes	0	2	2
Conflicting Approach Left	NB		WB
Conflicting Lanes Left	2	0	2
Conflicting Approach Right	SB	WB	
Conflicting Lanes Right	2	2	0
HCM Control Delay	44.7	41.2	11.5
HCM LOS	E	E	B

Lane	NBLn1	NBLn2	WBLn1	WBLn2	SBLn1	SBLn2
Vol Left, %	0%	0%	100%	87%	91%	0%
Vol Thru, %	100%	0%	0%	0%	9%	100%
Vol Right, %	0%	100%	0%	13%	0%	0%
Sign Control	Stop	Stop	Stop	Stop	Stop	Stop
Traffic Vol by Lane	273	520	438	252	8	1
LT Vol	0	0	438	219	7	0
Through Vol	273	0	0	0	1	1
RT Vol	0	520	0	33	0	0
Lane Flow Rate	297	565	476	274	8	1
Geometry Grp	7	7	7	7	7	7
Degree of Util (X)	0.565	0.964	0.968	0.545	0.02	0.003
Departure Headway (Hd)	6.853	6.141	7.322	7.164	8.73	8.257
Convergence, Y/N	Yes	Yes	Yes	Yes	Yes	Yes
Cap	525	588	495	504	413	436
Service Time	4.621	3.908	5.072	4.913	6.43	5.957
HCM Lane V/C Ratio	0.566	0.961	0.962	0.544	0.019	0.002
HCM Control Delay	18.2	53.3	60	18.2	11.6	11
HCM Lane LOS	C	F	F	C	B	B
HCM 95th-tile Q	3.5	13.2	12.4	3.2	0.1	0

Intersection	
Intersection Delay, s/veh	18.7
Intersection LOS	C

Movement	WBU	WBL	WBR	NBU	NBT	NBR	SBU	SBL	SBT
Vol, veh/h	0	120	147	0	585	120	0	115	393
Peak Hour Factor	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92
Heavy Vehicles, %	2	2	2	2	2	2	2	2	2
Mvmt Flow	0	130	160	0	636	130	0	125	427
Number of Lanes	0	1	1	0	2	0	0	0	2

Approach	WB	NB	SB
Opposing Approach		SB	NB
Opposing Lanes	0	2	2
Conflicting Approach Left	NB		WB
Conflicting Lanes Left	2	0	2
Conflicting Approach Right	SB	WB	
Conflicting Lanes Right	2	2	0
HCM Control Delay	13.3	22.3	16.6
HCM LOS	B	C	C

Lane	NBLn1	NBLn2	WBLn1	WBLn2	SBLn1	SBLn2
Vol Left, %	0%	0%	100%	0%	47%	0%
Vol Thru, %	100%	62%	0%	0%	53%	100%
Vol Right, %	0%	38%	0%	100%	0%	0%
Sign Control	Stop	Stop	Stop	Stop	Stop	Stop
Traffic Vol by Lane	390	315	120	147	246	262
LT Vol	0	0	120	0	115	0
Through Vol	390	195	0	0	131	262
RT Vol	0	120	0	147	0	0
Lane Flow Rate	424	342	130	160	267	285
Geometry Grp	7	7	7	7	7	7
Degree of Util (X)	0.754	0.583	0.293	0.304	0.511	0.526
Departure Headway (Hd)	6.405	6.133	8.078	6.851	6.881	6.643
Convergence, Y/N	Yes	Yes	Yes	Yes	Yes	Yes
Cap	564	585	443	522	521	541
Service Time	4.179	3.907	5.86	4.632	4.662	4.424
HCM Lane V/C Ratio	0.752	0.585	0.293	0.307	0.512	0.527
HCM Control Delay	26.4	17.2	14.2	12.6	16.7	16.6
HCM Lane LOS	D	C	B	B	C	C
HCM 95th-tile Q	6.6	3.7	1.2	1.3	2.9	3

HCM 2010 AWSC
10: Mariondale Avenue & Paseo Rancho Castilla

11/4/2016

Intersection	
Intersection Delay, s/veh	25.2
Intersection LOS	D

Movement	EBU	EBL	EBT	EBR	WBU	WBL	WBT	WBR	NBU	NBL	NBT	NBR
Vol, veh/h	0	98	164	5	0	6	184	159	0	220	218	7
Peak Hour Factor	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92
Heavy Vehicles, %	2	2	2	2	2	2	2	2	2	2	2	2
Mvmt Flow	0	107	178	5	0	7	200	173	0	239	237	8
Number of Lanes	0	1	1	0	0	1	1	1	0	0	2	0

Approach	EB	WB	NB
Opposing Approach	WB	EB	SB
Opposing Lanes	3	2	3
Conflicting Approach Left	SB	NB	EB
Conflicting Lanes Left	3	2	2
Conflicting Approach Right	NB	SB	WB
Conflicting Lanes Right	2	3	3
HCM Control Delay	18.6	18.7	41
HCM LOS	C	C	E

Lane	NBLn1	NBLn2	EBLn1	EBLn2	WBLn1	WBLn2	WBLn3	SBLn1	SBLn2	SBLn3
Vol Left, %	67%	0%	100%	0%	100%	0%	0%	63%	0%	0%
Vol Thru, %	33%	94%	0%	97%	0%	100%	0%	37%	100%	0%
Vol Right, %	0%	6%	0%	3%	0%	0%	100%	0%	0%	100%
Sign Control	Stop	Stop	Stop	Stop	Stop	Stop	Stop	Stop	Stop	Stop
Traffic Vol by Lane	329	116	98	169	6	184	159	127	95	96
LT Vol	220	0	98	0	6	0	0	80	0	0
Through Vol	109	109	0	164	0	184	0	47	95	0
RT Vol	0	7	0	5	0	0	159	0	0	96
Lane Flow Rate	358	126	107	184	7	200	173	138	103	104
Geometry Grp	8	8	8	8	8	8	8	8	8	8
Degree of Util (X)	0.882	0.297	0.287	0.468	0.017	0.504	0.401	0.363	0.261	0.244
Departure Headway (Hd)	8.88	8.494	9.715	9.179	9.579	9.064	8.343	9.453	9.129	8.406
Convergence, Y/N	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes
Cap	408	422	370	393	373	398	430	381	393	427
Service Time	6.636	6.25	7.481	6.944	7.341	6.826	6.104	7.218	6.893	6.17
HCM Lane V/C Ratio	0.877	0.299	0.289	0.468	0.019	0.503	0.402	0.362	0.262	0.244
HCM Control Delay	50.3	14.8	16.4	19.8	12.5	20.7	16.6	17.5	15.1	13.9
HCM Lane LOS	F	B	C	C	B	C	C	C	C	B
HCM 95th-tile Q	8.9	1.2	1.2	2.4	0.1	2.7	1.9	1.6	1	0.9

Intersection	
Intersection Delay, s/veh	
Intersection LOS	

Movement	SBU	SBL	SBT	SBR
Vol, veh/h	0	80	142	96
Peak Hour Factor	0.92	0.92	0.92	0.92
Heavy Vehicles, %	2	2	2	2
Mvmt Flow	0	87	154	104
Number of Lanes	0	0	2	1

Approach	SB
Opposing Approach	NB
Opposing Lanes	2
Conflicting Approach Left	WB
Conflicting Lanes Left	3
Conflicting Approach Right	EB
Conflicting Lanes Right	2
HCM Control Delay	15.7
HCM LOS	C

Lane

Intersection	
Intersection Delay, s/veh	42.8
Intersection LOS	E

Movement	WBU	WBL	WBR	NBU	NBT	NBR	SBU	SBL	SBT
Vol, veh/h	0	386	20	0	473	934	0	4	0
Peak Hour Factor	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92
Heavy Vehicles, %	2	2	2	2	2	2	2	2	2
Mvmt Flow	0	420	22	0	514	1015	0	4	0
Number of Lanes	0	2	0	0	1	1	0	0	2

Approach	WB	NB	SB
Opposing Approach		SB	NB
Opposing Lanes	0	2	2
Conflicting Approach Left	NB		WB
Conflicting Lanes Left	2	0	2
Conflicting Approach Right	SB	WB	
Conflicting Lanes Right	2	2	0
HCM Control Delay	18	50.1	10.8
HCM LOS	C	F	B

Lane	NBLn1	NBLn2	WBLn1	WBLn2	SBLn1	SBLn2
Vol Left, %	0%	0%	100%	87%	100%	0%
Vol Thru, %	100%	0%	0%	0%	0%	100%
Vol Right, %	0%	100%	0%	13%	0%	0%
Sign Control	Stop	Stop	Stop	Stop	Stop	Stop
Traffic Vol by Lane	473	934	257	149	4	0
LT Vol	0	0	257	129	4	0
Through Vol	473	0	0	0	0	0
RT Vol	0	934	0	20	0	0
Lane Flow Rate	514	1015	280	162	4	0
Geometry Grp	7	7	7	7	7	7
Degree of Util (X)	0.864	1	0.584	0.33	0.01	0
Departure Headway (Hd)	6.05	5.342	7.51	7.35	8.033	7.533
Convergence, Y/N	Yes	Yes	Yes	Yes	Yes	Yes
Cap	596	680	478	486	448	0
Service Time	3.808	3.1	5.301	5.14	5.733	5.233
HCM Lane V/C Ratio	0.862	1.493	0.586	0.333	0.009	0
HCM Control Delay	35.8	57.4	20.4	13.8	10.8	10.2
HCM Lane LOS	E	F	C	B	B	N
HCM 95th-tile Q	9.7	15.8	3.7	1.4	0	0

Intersection	
Intersection Delay, s/veh	13.8
Intersection LOS	B

Movement	WBU	WBL	WBR	NBU	NBT	NBR	SBU	SBL	SBT
Vol, veh/h	0	33	89	0	544	153	0	139	260
Peak Hour Factor	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92
Heavy Vehicles, %	2	2	2	2	2	2	2	2	2
Mvmt Flow	0	36	97	0	591	166	0	151	283
Number of Lanes	0	1	1	0	2	0	0	0	2

Approach	WB	NB	SB
Opposing Approach		SB	NB
Opposing Lanes	0	2	2
Conflicting Approach Left	NB		WB
Conflicting Lanes Left	2	0	2
Conflicting Approach Right	SB	WB	
Conflicting Lanes Right	2	2	0
HCM Control Delay	10.6	15.1	12.4
HCM LOS	B	C	B

Lane	NBLn1	NBLn2	WBLn1	WBLn2	SBLn1	SBLn2
Vol Left, %	0%	0%	100%	0%	62%	0%
Vol Thru, %	100%	54%	0%	0%	38%	100%
Vol Right, %	0%	46%	0%	100%	0%	0%
Sign Control	Stop	Stop	Stop	Stop	Stop	Stop
Traffic Vol by Lane	363	334	33	89	226	173
LT Vol	0	0	33	0	139	0
Through Vol	363	181	0	0	87	173
RT Vol	0	153	0	89	0	0
Lane Flow Rate	394	363	36	97	245	188
Geometry Grp	7	7	7	7	7	7
Degree of Util (X)	0.605	0.525	0.076	0.172	0.42	0.306
Departure Headway (Hd)	5.527	5.203	7.635	6.414	6.167	5.855
Convergence, Y/N	Yes	Yes	Yes	Yes	Yes	Yes
Cap	654	694	470	560	584	614
Service Time	3.249	2.926	5.371	4.149	3.895	3.584
HCM Lane V/C Ratio	0.602	0.523	0.077	0.173	0.42	0.306
HCM Control Delay	16.4	13.6	11	10.5	13.3	11.2
HCM Lane LOS	C	B	B	B	B	B
HCM 95th-tile Q	4.1	3.1	0.2	0.6	2.1	1.3

Intersection	
Intersection Delay, s/veh	14.1
Intersection LOS	B

Movement	EBU	EBL	EBT	EBR	WBU	WBL	WBT	WBR	NBU	NBL	NBT	NBR
Vol, veh/h	0	49	236	5	0	2	107	32	0	81	75	8
Peak Hour Factor	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92
Heavy Vehicles, %	2	2	2	2	2	2	2	2	2	2	2	2
Mvmt Flow	0	53	257	5	0	2	116	35	0	88	82	9
Number of Lanes	0	1	1	0	0	1	1	1	0	0	2	0

Approach	EB	WB	NB
Opposing Approach	WB	EB	SB
Opposing Lanes	3	2	3
Conflicting Approach Left	SB	NB	EB
Conflicting Lanes Left	3	2	2
Conflicting Approach Right	NB	SB	WB
Conflicting Lanes Right	2	3	3
HCM Control Delay	16.2	12.2	12.8
HCM LOS	C	B	B

Lane	NBLn1	NBLn2	EBLn1	EBLn2	WBLn1	WBLn2	WBLn3	SBLn1	SBLn2	SBLn3
Vol Left, %	68%	0%	100%	0%	100%	0%	0%	71%	0%	0%
Vol Thru, %	32%	82%	0%	98%	0%	100%	0%	29%	100%	0%
Vol Right, %	0%	18%	0%	2%	0%	0%	100%	0%	0%	100%
Sign Control	Stop	Stop	Stop	Stop	Stop	Stop	Stop	Stop	Stop	Stop
Traffic Vol by Lane	119	46	49	241	2	107	32	212	121	71
LT Vol	81	0	49	0	2	0	0	151	0	0
Through Vol	38	38	0	236	0	107	0	61	121	0
RT Vol	0	8	0	5	0	0	32	0	0	71
Lane Flow Rate	129	49	53	262	2	116	35	230	132	77
Geometry Grp	8	8	8	8	8	8	8	8	8	8
Degree of Util (X)	0.278	0.1	0.113	0.516	0.005	0.246	0.067	0.462	0.252	0.132
Departure Headway (Hd)	7.777	7.305	7.613	7.092	8.122	7.613	6.9	7.227	6.866	6.158
Convergence, Y/N	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes
Cap	462	491	471	508	441	472	519	499	524	583
Service Time	5.521	5.049	5.349	4.828	5.865	5.356	4.643	4.963	4.602	3.893
HCM Lane V/C Ratio	0.279	0.1	0.113	0.516	0.005	0.246	0.067	0.461	0.252	0.132
HCM Control Delay	13.5	10.9	11.3	17.2	10.9	12.8	10.1	16	11.9	9.8
HCM Lane LOS	B	B	B	C	B	B	B	C	B	A
HCM 95th-tile Q	1.1	0.3	0.4	2.9	0	1	0.2	2.4	1	0.5

Intersection	
Intersection Delay, s/veh	
Intersection LOS	

Movement	SBU	SBL	SBT	SBR
Vol, veh/h	0	151	182	71
Peak Hour Factor	0.92	0.92	0.92	0.92
Heavy Vehicles, %	2	2	2	2
Mvmt Flow	0	164	198	77
Number of Lanes	0	0	2	1

Approach	SB
Opposing Approach	NB
Opposing Lanes	2
Conflicting Approach Left	WB
Conflicting Lanes Left	3
Conflicting Approach Right	EB
Conflicting Lanes Right	2
HCM Control Delay	13.7
HCM LOS	B

Lane

HCM 2010 AWSC
4: Campus Road & Circle Drive

Intersection	
Intersection Delay, s/veh	38.2
Intersection LOS	E

Movement	WBU	WBL	WBR	NBU	NBT	NBR	SBU	SBL	SBT
Vol, veh/h	0	632	33	0	273	514	0	7	0
Peak Hour Factor	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92
Heavy Vehicles, %	2	2	2	2	2	2	2	2	2
Mvmt Flow	0	687	36	0	297	559	0	8	0
Number of Lanes	0	2	0	0	1	1	0	0	2

Approach	WB	NB	SB
Opposing Approach		SB	NB
Opposing Lanes	0	2	2
Conflicting Approach Left	NB		WB
Conflicting Lanes Left	2	0	2
Conflicting Approach Right	SB	WB	
Conflicting Lanes Right	2	2	0
HCM Control Delay	39.4	37.5	11.5
HCM LOS	E	E	B

Lane	NBLn1	NBLn2	WBLn1	WBLn2	SBLn1	SBLn2
Vol Left, %	0%	0%	100%	86%	100%	0%
Vol Thru, %	100%	0%	0%	0%	0%	100%
Vol Right, %	0%	100%	0%	14%	0%	0%
Sign Control	Stop	Stop	Stop	Stop	Stop	Stop
Traffic Vol by Lane	273	514	421	244	7	0
LT Vol	0	0	421	211	7	0
Through Vol	273	0	0	0	0	0
RT Vol	0	514	0	33	0	0
Lane Flow Rate	297	559	458	265	8	0
Geometry Grp	7	7	7	7	7	7
Degree of Util (X)	0.558	0.94	0.93	0.526	0.018	0
Departure Headway (Hd)	6.768	6.058	7.313	7.149	8.581	8.063
Convergence, Y/N	Yes	Yes	Yes	Yes	Yes	Yes
Cap	531	598	495	503	415	0
Service Time	4.533	3.823	5.06	4.896	6.379	5.862
HCM Lane V/C Ratio	0.559	0.935	0.925	0.527	0.019	0
HCM Control Delay	17.8	48	52	17.6	11.5	10.9
HCM Lane LOS	C	E	F	C	B	N
HCM 95th-tile Q	3.4	12.4	11.1	3	0.1	0

Intersection	
Intersection Delay, s/veh	18.2
Intersection LOS	C

Movement	WBU	WBL	WBR	NBU	NBT	NBR	SBU	SBL	SBT
Vol, veh/h	0	114	147	0	580	117	0	115	388
Peak Hour Factor	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92
Heavy Vehicles, %	2	2	2	2	2	2	2	2	2
Mvmt Flow	0	124	160	0	630	127	0	125	422
Number of Lanes	0	1	1	0	2	0	0	0	2

Approach	WB	NB	SB
Opposing Approach		SB	NB
Opposing Lanes	0	2	2
Conflicting Approach Left	NB		WB
Conflicting Lanes Left	2	0	2
Conflicting Approach Right	SB	WB	
Conflicting Lanes Right	2	2	0
HCM Control Delay	13.2	21.5	16.3
HCM LOS	B	C	C

Lane	NBLn1	NBLn2	WBLn1	WBLn2	SBLn1	SBLn2
Vol Left, %	0%	0%	100%	0%	47%	0%
Vol Thru, %	100%	62%	0%	0%	53%	100%
Vol Right, %	0%	38%	0%	100%	0%	0%
Sign Control	Stop	Stop	Stop	Stop	Stop	Stop
Traffic Vol by Lane	387	310	114	147	244	259
LT Vol	0	0	114	0	115	0
Through Vol	387	193	0	0	129	259
RT Vol	0	117	0	147	0	0
Lane Flow Rate	420	337	124	160	266	281
Geometry Grp	7	7	7	7	7	7
Degree of Util (X)	0.743	0.571	0.277	0.303	0.504	0.515
Departure Headway (Hd)	6.363	6.095	8.046	6.819	6.837	6.597
Convergence, Y/N	Yes	Yes	Yes	Yes	Yes	Yes
Cap	567	590	445	524	526	543
Service Time	4.134	3.865	5.824	4.597	4.615	4.375
HCM Lane V/C Ratio	0.741	0.571	0.279	0.305	0.506	0.517
HCM Control Delay	25.4	16.7	13.9	12.6	16.4	16.2
HCM Lane LOS	D	C	B	B	C	C
HCM 95th-tile Q	6.4	3.6	1.1	1.3	2.8	2.9

Intersection	
Intersection Delay, s/veh	22.7
Intersection LOS	C

Movement	EBU	EBL	EBT	EBR	WBU	WBL	WBT	WBR	NBU	NBL	NBT	NBR
Vol, veh/h	0	85	162	5	0	6	183	146	0	220	205	6
Peak Hour Factor	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92
Heavy Vehicles, %	2	2	2	2	2	2	2	2	2	2	2	2
Mvmt Flow	0	92	176	5	0	7	199	159	0	239	223	7
Number of Lanes	0	1	1	0	0	1	1	1	0	0	2	0

Approach	EB	WB	NB
Opposing Approach	WB	EB	SB
Opposing Lanes	3	2	3
Conflicting Approach Left	SB	NB	EB
Conflicting Lanes Left	3	2	2
Conflicting Approach Right	NB	SB	WB
Conflicting Lanes Right	2	3	3
HCM Control Delay	17.5	17.5	35.3
HCM LOS	C	C	E

Lane	NBLn1	NBLn2	EBLn1	EBLn2	WBLn1	WBLn2	WBLn3	SBLn1	SBLn2	SBLn3
Vol Left, %	68%	0%	100%	0%	100%	0%	0%	63%	0%	0%
Vol Thru, %	32%	94%	0%	97%	0%	100%	0%	37%	100%	0%
Vol Right, %	0%	6%	0%	3%	0%	0%	100%	0%	0%	100%
Sign Control	Stop	Stop	Stop	Stop	Stop	Stop	Stop	Stop	Stop	Stop
Traffic Vol by Lane	323	109	85	167	6	183	146	119	88	90
LT Vol	220	0	85	0	6	0	0	75	0	0
Through Vol	103	103	0	162	0	183	0	44	88	0
RT Vol	0	6	0	5	0	0	146	0	0	90
Lane Flow Rate	351	118	92	182	7	199	159	129	96	98
Geometry Grp	8	8	8	8	8	8	8	8	8	8
Degree of Util (X)	0.837	0.269	0.242	0.448	0.017	0.484	0.354	0.329	0.235	0.221
Departure Headway (Hd)	8.597	8.209	9.417	8.882	9.272	8.758	8.038	9.164	8.839	8.119
Convergence, Y/N	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes
Cap	421	438	382	405	386	412	448	392	407	442
Service Time	6.345	5.957	7.171	6.636	7.025	6.511	5.791	6.92	6.595	5.874
HCM Lane V/C Ratio	0.834	0.269	0.241	0.449	0.018	0.483	0.355	0.329	0.236	0.222
HCM Control Delay	42.5	14	15.2	18.7	12.2	19.5	15.2	16.4	14.3	13.2
HCM Lane LOS	E	B	C	C	B	C	C	C	B	B
HCM 95th-tile Q	8	1.1	0.9	2.3	0.1	2.6	1.6	1.4	0.9	0.8

Intersection				
Intersection Delay, s/veh				
Intersection LOS				

Movement	SBU	SBL	SBT	SBR
Vol, veh/h	0	75	132	90
Peak Hour Factor	0.92	0.92	0.92	0.92
Heavy Vehicles, %	2	2	2	2
Mvmt Flow	0	82	143	98
Number of Lanes	0	0	2	1

Approach	SB
Opposing Approach	NB
Opposing Lanes	2
Conflicting Approach Left	WB
Conflicting Lanes Left	3
Conflicting Approach Right	EB
Conflicting Lanes Right	2
HCM Control Delay	14.8
HCM LOS	B

Lane

Appendix D

Signal Warrant Worksheets

FUTURE WITH PROJECT (YEAR 2021) - AM PEAK HOUR

CSULA Student Housing Project

Traffic Signal Warrant Analysis
Warrant 3, Peak Hour

4. CAMPUS ROAD & CIRCLE DRIVE

Major Street Name: Campus Road
Minor Street Name: Circle Drive

Major Street Lanes: 1
Minor Street Lanes: 2

[b] Urban/Rural: Urban

Vehicles per Hour (Peak Hour)

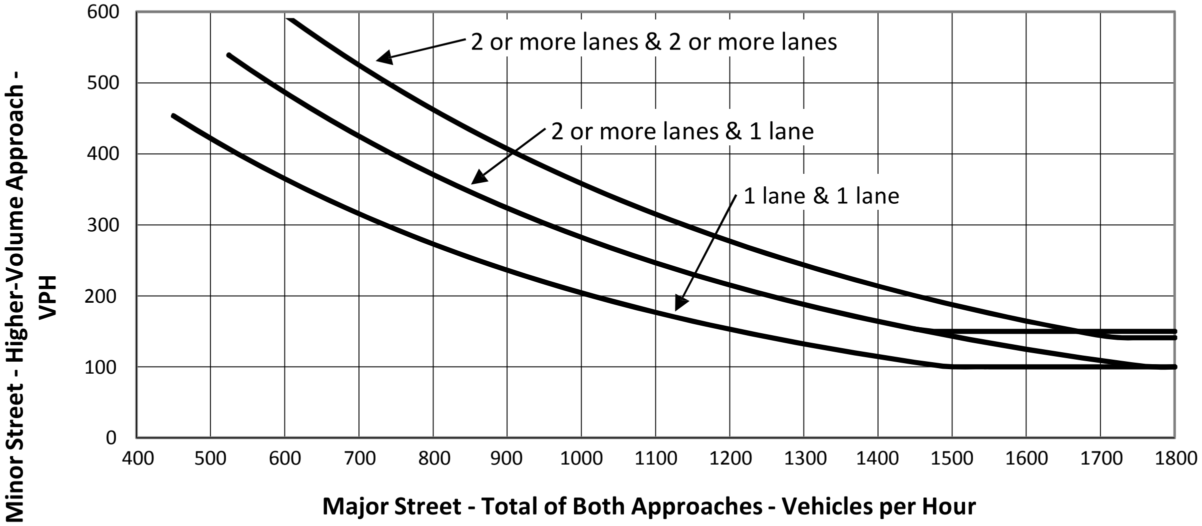
Major Street (Approach 1):	473
Major Street (Approach 2):	4
[a] Major Street Left-Turns:	0
Minor Street (Higher Volume):	406

Vehicles per Hour (Peak Hour)

Major Street (Approach 1):	473
Major Street (Approach 2):	4
Total Major Street Volume:	477
Major Street Left Turns:	0
Minor Street (Higher Volume):	406
Total Minor Street Volume:	406

Minimum Major Street Volume:	510
Satisfied?	NO
Minimum Minor Street Volume:	575
Satisfied?	NO
Warrant 3 Satisfied?	**NO**

Figure 4C-3. Warrant 3, Peak Hour [c]



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[a] Major street left-turn volume is added to minor street volume if a protected left-turn signal phase is proposed.

[b] Setting to "Rural" reduces minimum test volumes to approximately 70% of "Urban" test volumes. This may be used when major street speed exceeds 40 mph or in an isolated community of less than 10,000 residents.

[c] From *California Manual on Uniform Traffic Control Devices, 2014 Edition;* Caltrans.

Appendix D

Air Quality Worksheets

CSULA EIR - CSULA Field

Los Angeles-South Coast County, Annual

1.0 Project Characteristics

1.1 Land Usage

Land Uses	Size	Metric	Lot Acreage	Floor Surface Area	Population
City Park	0.00	Acre	4.68	203,804.00	0

1.2 Other Project Characteristics

Urbanization	Urban	**Wind Speed (m/s)**	2.2	**Precipitation Freq (Days)**	33
Climate Zone	12			**Operational Year**	2019
Utility Company	Los Angeles Department of Water & Power				
CO2 Intensity (lb/MWhr)	1227.89	**CH4 Intensity (lb/MWhr)**	0.029	**N2O Intensity (lb/MWhr)**	0.006

1.3 User Entered Comments & Non-Default Data

Project Characteristics -

Land Use - 203,804 sf

Table Name	Column Name	Default Value	New Value
tblArchitecturalCoating	EF_Parking	100.00	0.00
tblAreaCoating	Area_EF_Parking	100	0
tblLandUse	LandUseSquareFeet	0.00	203,804.00
tblLandUse	LotAcreage	0.00	4.68
tblProjectCharacteristics	OperationalYear	2018	2019

2.0 Emissions Summary

2.1 Overall Construction

Unmitigated Construction

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Year	tons/yr										MT/yr					
2018	0.4385	3.8117	2.9950	5.8700e-003	0.2053	0.2073	0.4126	0.0744	0.1945	0.2689	0.0000	530.2864	530.2864	0.0928	0.0000	532.6065
2019	0.0184	0.1581	0.1646	2.8000e-004	4.8000e-003	8.9900e-003	0.0138	1.2800e-003	8.4100e-003	9.6900e-003	0.0000	24.9378	24.9378	5.6000e-003	0.0000	25.0779
Maximum	**0.4385**	**3.8117**	**2.9950**	**5.8700e-003**	**0.2053**	**0.2073**	**0.4126**	**0.0744**	**0.1945**	**0.2689**	**0.0000**	**530.2864**	**530.2864**	**0.0928**	**0.0000**	**532.6065**

2.2 Overall Operational

Unmitigated Operational

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	tons/yr										MT/yr					
Area	0.7365	0.0000	0.0000	0.0000		0.0000	0.0000		0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Energy	0.0000	0.0000	0.0000	0.0000		0.0000	0.0000		0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Mobile	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Waste						0.0000	0.0000		0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Water						0.0000	0.0000		0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Total	**0.7365**	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**

3.0 Construction Detail

Construction Phase

Phase Number	Phase Name	Phase Type	Start Date	End Date	Num Days Week	Num Days	Phase Description
1	Architectural Coating	Architectural Coating	1/29/2019	2/21/2019	5	18	
2	Building Construction	Building Construction	2/15/2018	1/2/2019	5	230	
3	Demolition	Demolition	1/1/2018	1/26/2018	5	20	
4	Grading	Grading	2/3/2018	2/14/2018	5	8	
5	Paving	Paving	1/3/2019	1/28/2019	5	18	
6	Site Preparation	Site Preparation	1/27/2018	2/2/2018	5	5	

Acres of Grading (Site Preparation Phase): 0

Acres of Grading (Grading Phase): 4

Acres of Paving: 0

Residential Indoor: 0; Residential Outdoor: 0; Non-Residential Indoor: 0; Non-Residential Outdoor: 0; Striped Parking Area: 0

OffRoad Equipment

Phase Name	Offroad Equipment Type	Amount	Usage Hours	Horse Power	Load Factor
Architectural Coating	Air Compressors	1	6.00	78	0.48
Paving	Cement and Mortar Mixers	2	6.00	9	0.56
Demolition	Concrete/Industrial Saws	1	8.00	81	0.73
Demolition	Excavators	3	8.00	158	0.38
Building Construction	Cranes	1	7.00	231	0.29
Building Construction	Forklifts	3	8.00	89	0.20
Grading	Excavators	1	8.00	158	0.38
Paving	Pavers	1	8.00	130	0.42
Paving	Rollers	2	6.00	80	0.38
Demolition	Rubber Tired Dozers	2	8.00	247	0.40
Grading	Rubber Tired Dozers	1	8.00	247	0.40
Building Construction	Tractors/Loaders/Backhoes	3	7.00	97	0.37

Building Construction	Generator Sets	1	8.00	84	0.74
Grading	Tractors/Loaders/Backhoes	3	8.00	97	0.37
Paving	Tractors/Loaders/Backhoes	1	8.00	97	0.37
Site Preparation	Tractors/Loaders/Backhoes	4	8.00	97	0.37
Grading	Graders	1	8.00	187	0.41
Paving	Paving Equipment	2	6.00	132	0.36
Site Preparation	Rubber Tired Dozers	3	8.00	247	0.40
Building Construction	Welders	1	8.00	46	0.45

Trips and VMT

Phase Name	Offroad Equipment Count	Worker Trip Number	Vendor Trip Number	Hauling Trip Number	Worker Trip Length	Vendor Trip Length	Hauling Trip Length	Worker Vehicle Class	Vendor Vehicle Class	Hauling Vehicle Class
Architectural Coating	1	17.00	0.00	0.00	14.70	6.90	20.00	LD_Mix	HDT_Mix	HHDT
Building Construction	9	86.00	33.00	0.00	14.70	6.90	20.00	LD_Mix	HDT_Mix	HHDT
Demolition	6	15.00	0.00	0.00	14.70	6.90	20.00	LD_Mix	HDT_Mix	HHDT
Grading	6	15.00	0.00	0.00	14.70	6.90	20.00	LD_Mix	HDT_Mix	HHDT
Paving	8	20.00	0.00	0.00	14.70	6.90	20.00	LD_Mix	HDT_Mix	HHDT
Site Preparation	7	18.00	0.00	0.00	14.70	6.90	20.00	LD_Mix	HDT_Mix	HHDT

3.1 Mitigation Measures Construction

3.2 Architectural Coating - 2019

Unmitigated Construction On-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	tons/yr										MT/yr					
Archit. Coating	0.0000					0.0000	0.0000		0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Off-Road	2.4000e-003	0.0165	0.0166	3.0000e-005		1.1600e-003	1.1600e-003		1.1600e-003	1.1600e-003	0.0000	2.2979	2.2979	1.9000e-004	0.0000	2.3028
Total	**2.4000e-003**	**0.0165**	**0.0166**	**3.0000e-005**		**1.1600e-003**	**1.1600e-003**		**1.1600e-003**	**1.1600e-003**	**0.0000**	**2.2979**	**2.2979**	**1.9000e-004**	**0.0000**	**2.3028**

Unmitigated Construction Off-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	tons/yr										MT/yr					
Hauling	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Vendor	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Worker	7.7000e-004	6.4000e-004	6.9500e-003	2.0000e-005	1.6800e-003	1.0000e-005	1.6900e-003	4.5000e-004	1.0000e-005	4.6000e-004	0.0000	1.6116	1.6116	6.0000e-005	0.0000	1.6130
Total	**7.7000e-004**	**6.4000e-004**	**6.9500e-003**	**2.0000e-005**	**1.6800e-003**	**1.0000e-005**	**1.6900e-003**	**4.5000e-004**	**1.0000e-005**	**4.6000e-004**	**0.0000**	**1.6116**	**1.6116**	**6.0000e-005**	**0.0000**	**1.6130**

3.3 Building Construction - 2018

Unmitigated Construction On-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	tons/yr										MT/yr					
Off-Road	0.3055	2.6665	2.0042	3.0700e-003		0.1710	0.1710		0.1607	0.1607	0.0000	271.0547	271.0547	0.0664	0.0000	272.7149
Total	**0.3055**	**2.6665**	**2.0042**	**3.0700e-003**		**0.1710**	**0.1710**		**0.1607**	**0.1607**	**0.0000**	**271.0547**	**271.0547**	**0.0664**	**0.0000**	**272.7149**

Unmitigated Construction Off-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	tons/yr										MT/yr					
Hauling	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Vendor	0.0176	0.4711	0.1325	9.8000e-004	0.0237	3.2700e-003	0.0270	6.8400e-003	3.1300e-003	9.9700e-003	0.0000	95.0531	95.0531	6.5200e-003	0.0000	95.2161

Worker	0.0543	0.0465	0.4998	1.1800e-003	0.1074	9.8000e-004	0.1084	0.0285	9.0000e-004	0.0294	0.0000	106.7454	106.7454	4.0100e-003	0.0000	106.8458
Total	**0.0720**	**0.5176**	**0.6323**	**2.1600e-003**	**0.1311**	**4.2500e-003**	**0.1354**	**0.0354**	**4.0300e-003**	**0.0394**	**0.0000**	**201.7986**	**201.7986**	**0.0105**	**0.0000**	**202.0619**

3.3 Building Construction - 2019

Unmitigated Construction On-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	tons/yr										MT/yr					
Off-Road	2.3600e-003	0.0211	0.0172	3.0000e-005		1.2900e-003	1.2900e-003		1.2100e-003	1.2100e-003	0.0000	2.3510	2.3510	5.7000e-004	0.0000	2.3654
Total	**2.3600e-003**	**0.0211**	**0.0172**	**3.0000e-005**		**1.2900e-003**	**1.2900e-003**		**1.2100e-003**	**1.2100e-003**	**0.0000**	**2.3510**	**2.3510**	**5.7000e-004**	**0.0000**	**2.3654**

Unmitigated Construction Off-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	tons/yr										MT/yr					
Hauling	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Vendor	1.4000e-004	3.9000e-003	1.0700e-003	1.0000e-005	2.1000e-004	2.0000e-005	2.3000e-004	6.0000e-005	2.0000e-005	8.0000e-005	0.0000	0.8252	0.8252	6.0000e-005	0.0000	0.8266
Worker	4.3000e-004	3.6000e-004	3.9000e-003	1.0000e-005	9.4000e-004	1.0000e-005	9.5000e-004	2.5000e-004	1.0000e-005	2.6000e-004	0.0000	0.9059	0.9059	3.0000e-005	0.0000	0.9067
Total	**5.7000e-004**	**4.2600e-003**	**4.9700e-003**	**2.0000e-005**	**1.1500e-003**	**3.0000e-005**	**1.1800e-003**	**3.1000e-004**	**3.0000e-005**	**3.4000e-004**	**0.0000**	**1.7311**	**1.7311**	**9.0000e-005**	**0.0000**	**1.7333**

3.4 Demolition - 2018

Unmitigated Construction On-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	tons/yr										MT/yr					
Off-Road	0.0372	0.3832	0.2230	3.9000e-004		0.0194	0.0194		0.0181	0.0181	0.0000	35.1241	35.1241	9.6800e-003	0.0000	35.3660
Total	**0.0372**	**0.3832**	**0.2230**	**3.9000e-004**		**0.0194**	**0.0194**		**0.0181**	**0.0181**	**0.0000**	**35.1241**	**35.1241**	**9.6800e-003**	**0.0000**	**35.3660**

Unmitigated Construction Off-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	tons/yr										MT/yr					
Hauling	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Vendor	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Worker	8.3000e-004	7.1000e-004	7.6500e-003	2.0000e-005	1.6400e-003	1.0000e-005	1.6600e-003	4.4000e-004	1.0000e-005	4.5000e-004	0.0000	1.6332	1.6332	6.0000e-005	0.0000	1.6347
Total	**8.3000e-004**	**7.1000e-004**	**7.6500e-003**	**2.0000e-005**	**1.6400e-003**	**1.0000e-005**	**1.6600e-003**	**4.4000e-004**	**1.0000e-005**	**4.5000e-004**	**0.0000**	**1.6332**	**1.6332**	**6.0000e-005**	**0.0000**	**1.6347**

3.5 Grading - 2018

Unmitigated Construction On-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	tons/yr										MT/yr					
Fugitive Dust					0.0262	0.0000	0.0262	0.0135	0.0000	0.0135	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Off-Road	0.0111	0.1227	0.0663	1.2000e-004		6.2100e-003	6.2100e-003		5.7100e-003	5.7100e-003	0.0000	10.8428	10.8428	3.3800e-003	0.0000	10.9271
Total	**0.0111**	**0.1227**	**0.0663**	**1.2000e-004**	**0.0262**	**6.2100e-003**	**0.0324**	**0.0135**	**5.7100e-003**	**0.0192**	**0.0000**	**10.8428**	**10.8428**	**3.3800e-003**	**0.0000**	**10.9271**

Unmitigated Construction Off-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	tons/yr										MT/yr					
Hauling	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Vendor	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Worker	3.3000e-004	2.8000e-004	3.0600e-003	1.0000e-005	6.6000e-004	1.0000e-005	6.6000e-004	1.7000e-004	1.0000e-005	1.8000e-004	0.0000	0.6533	0.6533	2.0000e-005	0.0000	0.6539
Total	**3.3000e-004**	**2.8000e-004**	**3.0600e-003**	**1.0000e-005**	**6.6000e-004**	**1.0000e-005**	**6.6000e-004**	**1.7000e-004**	**1.0000e-005**	**1.8000e-004**	**0.0000**	**0.6533**	**0.6533**	**2.0000e-005**	**0.0000**	**0.6539**

3.6 Paving - 2019

Unmitigated Construction On-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	tons/yr										MT/yr					
Off-Road	0.0114	0.1148	0.1108	1.7000e-004		6.4800e-003	6.4800e-003		5.9700e-003	5.9700e-003	0.0000	15.0501	15.0501	4.6300e-003	0.0000	15.1658
Paving	0.0000					0.0000	0.0000		0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Total	**0.0114**	**0.1148**	**0.1108**	**1.7000e-004**		**6.4800e-003**	**6.4800e-003**		**5.9700e-003**	**5.9700e-003**	**0.0000**	**15.0501**	**15.0501**	**4.6300e-003**	**0.0000**	**15.1658**

Unmitigated Construction Off-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	tons/yr										MT/yr					
Hauling	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Vendor	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000

Worker	9.0000e-004	7.5000e-004	8.1700e-003	2.0000e-005	1.9700e-003	2.0000e-005	1.9900e-003	5.2000e-004	2.0000e-005	5.4000e-004	0.0000	1.8960	1.8960	7.0000e-005	0.0000	1.8977
Total	**9.0000e-004**	**7.5000e-004**	**8.1700e-003**	**2.0000e-005**	**1.9700e-003**	**2.0000e-005**	**1.9900e-003**	**5.2000e-004**	**2.0000e-005**	**5.4000e-004**	**0.0000**	**1.8960**	**1.8960**	**7.0000e-005**	**0.0000**	**1.8977**

3.7 Site Preparation - 2018

Unmitigated Construction On-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	tons/yr										MT/yr					
Fugitive Dust					0.0452	0.0000	0.0452	0.0248	0.0000	0.0248	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Off-Road	0.0114	0.1205	0.0562	1.0000e-004		6.4400e-003	6.4400e-003		5.9300e-003	5.9300e-003	0.0000	8.6900	8.6900	2.7100e-003	0.0000	8.7576
Total	**0.0114**	**0.1205**	**0.0562**	**1.0000e-004**	**0.0452**	**6.4400e-003**	**0.0516**	**0.0248**	**5.9300e-003**	**0.0308**	**0.0000**	**8.6900**	**8.6900**	**2.7100e-003**	**0.0000**	**8.7576**

Unmitigated Construction Off-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	tons/yr										MT/yr					
Hauling	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Vendor	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Worker	2.5000e-004	2.1000e-004	2.2900e-003	1.0000e-005	4.9000e-004	0.0000	5.0000e-004	1.3000e-004	0.0000	1.4000e-004	0.0000	0.4900	0.4900	2.0000e-005	0.0000	0.4904
Total	**2.5000e-004**	**2.1000e-004**	**2.2900e-003**	**1.0000e-005**	**4.9000e-004**	**0.0000**	**5.0000e-004**	**1.3000e-004**	**0.0000**	**1.4000e-004**	**0.0000**	**0.4900**	**0.4900**	**2.0000e-005**	**0.0000**	**0.4904**

CSULA EIR - CSULA Field

Los Angeles-South Coast County, Summer

1.0 Project Characteristics

1.1 Land Usage

Land Uses	Size	Metric	Lot Acreage	Floor Surface Area	Population
City Park	0.00	Acre	4.68	203,804.00	0

1.2 Other Project Characteristics

Urbanization	Urban	**Wind Speed (m/s)**	2.2	**Precipitation Freq (Days)**	33
Climate Zone	12			**Operational Year**	2019

Utility Company Los Angeles Department of Water & Power

CO2 Intensity (lb/MWhr)	1227.89	**CH4 Intensity (lb/MWhr)**	0.029	**N2O Intensity (lb/MWhr)**	0.006

1.3 User Entered Comments & Non-Default Data

Project Characteristics -

Land Use - 203,804 sf

Table Name	Column Name	Default Value	New Value
tblArchitecturalCoating	EF_Parking	100.00	0.00
tblAreaCoating	Area_EF_Parking	100	0
tblLandUse	LandUseSquareFeet	0.00	203,804.00
tblLandUse	LotAcreage	0.00	4.68
tblProjectCharacteristics	OperationalYear	2018	2019

2.0 Emissions Summary

2.1 Overall Construction (Maximum Daily Emission)

Unmitigated Construction

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Year	lb/day										lb/day					
2018	4.6622	48.2738	23.4484	0.0465	18.2675	2.5787	20.8462	9.9840	2.3724	12.3565	0.0000	4,628.6504	4,628.6504	1.2013	0.0000	4,647.2447
2019	2.9279	25.2136	22.3238	0.0460	1.1725	1.3225	2.4951	0.3158	1.2437	1.5594	0.0000	4,554.8079	4,554.8079	0.7261	0.0000	4,572.9610
Maximum	**4.6622**	**48.2738**	**23.4484**	**0.0465**	**18.2675**	**2.5787**	**20.8462**	**9.9840**	**2.3724**	**12.3565**	**0.0000**	**4,628.6504**	**4,628.6504**	**1.2013**	**0.0000**	**4,647.2447**

2.2 Overall Operational

Unmitigated Operational

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Area	4.0353	0.0000	0.0000	0.0000		0.0000	0.0000		0.0000	0.0000		0.0000	0.0000	0.0000		0.0000
Energy	0.0000	0.0000	0.0000	0.0000		0.0000	0.0000		0.0000	0.0000		0.0000	0.0000	0.0000	0.0000	0.0000
Mobile	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000		0.0000	0.0000	0.0000		0.0000
Total	**4.0353**	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**		**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**

3.0 Construction Detail

Construction Phase

Phase Number	Phase Name	Phase Type	Start Date	End Date	Num Days Week	Num Days	Phase Description
1	Architectural Coating	Architectural Coating	1/29/2019	2/21/2019	5	18	
2	Building Construction	Building Construction	2/15/2018	1/2/2019	5	230	
3	Demolition	Demolition	1/1/2018	1/26/2018	5	20	
4	Grading	Grading	2/3/2018	2/14/2018	5	8	
5	Paving	Paving	1/3/2019	1/28/2019	5	18	
6	Site Preparation	Site Preparation	1/27/2018	2/2/2018	5	5	

Acres of Grading (Site Preparation Phase): 0

Acres of Grading (Grading Phase): 4

Acres of Paving: 0

Residential Indoor: 0; Residential Outdoor: 0; Non-Residential Indoor: 0; Non-Residential Outdoor: 0; Striped Parking Area: 0

OffRoad Equipment

Phase Name	Offroad Equipment Type	Amount	Usage Hours	Horse Power	Load Factor
Architectural Coating	Air Compressors	1	6.00	78	0.48
Paving	Cement and Mortar Mixers	2	6.00	9	0.56
Demolition	Concrete/Industrial Saws	1	8.00	81	0.73
Demolition	Excavators	3	8.00	158	0.38
Building Construction	Cranes	1	7.00	231	0.29
Building Construction	Forklifts	3	8.00	89	0.20
Grading	Excavators	1	8.00	158	0.38
Paving	Pavers	1	8.00	130	0.42
Paving	Rollers	2	6.00	80	0.38
Demolition	Rubber Tired Dozers	2	8.00	247	0.40
Grading	Rubber Tired Dozers	1	8.00	247	0.40
Building Construction	Tractors/Loaders/Backhoes	3	7.00	97	0.37
Building Construction	Generator Sets	1	8.00	84	0.74
Grading	Tractors/Loaders/Backhoes	3	8.00	97	0.37
Paving	Tractors/Loaders/Backhoes	1	8.00	97	0.37

Site Preparation	Tractors/Loaders/Backhoes	4	8.00	97	0.37
Grading	Graders	1	8.00	187	0.41
Paving	Paving Equipment	2	6.00	132	0.36
Site Preparation	Rubber Tired Dozers	3	8.00	247	0.40
Building Construction	Welders	1	8.00	46	0.45

Trips and VMT

Phase Name	Offroad Equipment Count	Worker Trip Number	Vendor Trip Number	Hauling Trip Number	Worker Trip Length	Vendor Trip Length	Hauling Trip Length	Worker Vehicle Class	Vendor Vehicle Class	Hauling Vehicle Class
Architectural Coating	1	17.00	0.00	0.00	14.70	6.90	20.00	LD_Mix	HDT_Mix	HHDT
Building Construction	9	86.00	33.00	0.00	14.70	6.90	20.00	LD_Mix	HDT_Mix	HHDT
Demolition	6	15.00	0.00	0.00	14.70	6.90	20.00	LD_Mix	HDT_Mix	HHDT
Grading	6	15.00	0.00	0.00	14.70	6.90	20.00	LD_Mix	HDT_Mix	HHDT
Paving	8	20.00	0.00	0.00	14.70	6.90	20.00	LD_Mix	HDT_Mix	HHDT
Site Preparation	7	18.00	0.00	0.00	14.70	6.90	20.00	LD_Mix	HDT_Mix	HHDT

3.1 Mitigation Measures Construction

3.2 Architectural Coating - 2019

Unmitigated Construction On-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Archit. Coating	0.0000					0.0000	0.0000		0.0000	0.0000			0.0000			0.0000
Off-Road	0.2664	1.8354	1.8413	2.9700e-003		0.1288	0.1288		0.1288	0.1288		281.4481	281.4481	0.0238		282.0423
Total	**0.2664**	**1.8354**	**1.8413**	**2.9700e-003**		**0.1288**	**0.1288**		**0.1288**	**0.1288**		**281.4481**	**281.4481**	**0.0238**		**282.0423**

Total	**0.0849**	**0.0624**	**0.8197**	**2.0700e-003**	**0.1900**	**1.6400e-003**	**0.1917**	**0.0504**	**1.5100e-003**	**0.0519**		**206.2020**	**206.2020**	**7.0800e-003**		**206.3791**

3.3 Building Construction - 2018

Unmitigated Construction On-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Off-Road	2.6795	23.3900	17.5804	0.0269		1.4999	1.4999		1.4099	1.4099		2,620.9351	2,620.9351	0.6421		2,636.9883
Total	**2.6795**	**23.3900**	**17.5804**	**0.0269**		**1.4999**	**1.4999**		**1.4099**	**1.4099**		**2,620.9351**	**2,620.9351**	**0.6421**		**2,636.9883**

3.3 Building Construction - 2019

Unmitigated Construction On-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Off-Road	2.3612	21.0788	17.1638	0.0269		1.2899	1.2899		1.2127	1.2127		2,591.5802	2,591.5802	0.6313		2,607.3635
Total	**2.3612**	**21.0788**	**17.1638**	**0.0269**		**1.2899**	**1.2899**		**1.2127**	**1.2127**		**2,591.5802**	**2,591.5802**	**0.6313**		**2,607.3635**

3.4 Demolition - 2018

Unmitigated Construction On-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Off-Road	3.7190	38.3225	22.3040	0.0388		1.9386	1.9386		1.8048	1.8048		3,871.7665	3,871.7665	1.0667		3,898.4344
Total	**3.7190**	**38.3225**	**22.3040**	**0.0388**		**1.9386**	**1.9386**		**1.8048**	**1.8048**		**3,871.7665**	**3,871.7665**	**1.0667**		**3,898.4344**

3.5 Grading - 2018

Unmitigated Construction On-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Fugitive Dust					6.5523	0.0000	6.5523	3.3675	0.0000	3.3675			0.0000			0.0000
Off-Road	2.7733	30.6725	16.5770	0.0297		1.5513	1.5513		1.4272	1.4272		2,988.0216	2,988.0216	0.9302		3,011.2769
Total	**2.7733**	**30.6725**	**16.5770**	**0.0297**	**6.5523**	**1.5513**	**8.1037**	**3.3675**	**1.4272**	**4.7947**		**2,988.0216**	**2,988.0216**	**0.9302**		**3,011.2769**

3.6 Paving - 2019

Unmitigated Construction On-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Off-Road	1.2679	12.7604	12.3130	0.0189		0.7196	0.7196		0.6637	0.6637		1,843.3191	1,843.3191	0.5671		1,857.4966
Paving	0.0000					0.0000	0.0000		0.0000	0.0000			0.0000			0.0000
Total	**1.2679**	**12.7604**	**12.3130**	**0.0189**		**0.7196**	**0.7196**		**0.6637**	**0.6637**		**1,843.3191**	**1,843.3191**	**0.5671**		**1,857.4966**

3.7 Site Preparation - 2018

Unmitigated Construction On-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Fugitive Dust					18.0663	0.0000	18.0663	9.9307	0.0000	9.9307			0.0000			0.0000
Off-Road	4.5627	48.1988	22.4763	0.0380		2.5769	2.5769		2.3708	2.3708		3,831.6239	3,831.6239	1.1928		3,861.4448
Total	**4.5627**	**48.1988**	**22.4763**	**0.0380**	**18.0663**	**2.5769**	**20.6432**	**9.9307**	**2.3708**	**12.3014**		**3,831.6239**	**3,831.6239**	**1.1928**		**3,861.4448**

CSULA EIR - CSULA Field

Los Angeles-South Coast County, Winter

1.0 Project Characteristics

1.1 Land Usage

Land Uses	Size	Metric	Lot Acreage	Floor Surface Area	Population
City Park	0.00	Acre	4.68	203,804.00	0

1.2 Other Project Characteristics

Urbanization	Urban	**Wind Speed (m/s)**	2.2	**Precipitation Freq (Days)**	33
Climate Zone	12			**Operational Year**	2019
Utility Company	Los Angeles Department of Water & Power				
CO2 Intensity (lb/MWhr)	1227.89	**CH4 Intensity (lb/MWhr)**	0.029	**N2O Intensity (lb/MWhr)**	0.006

1.3 User Entered Comments & Non-Default Data

Project Characteristics -

Land Use - 203,804 sf

Table Name	Column Name	Default Value	New Value
tblArchitecturalCoating	EF_Parking	100.00	0.00
tblAreaCoating	Area_EF_Parking	100	0
tblLandUse	LandUseSquareFeet	0.00	203,804.00
tblLandUse	LotAcreage	0.00	4.68
tblProjectCharacteristics	OperationalYear	2018	2019

2.0 Emissions Summary

2.1 Overall Construction (Maximum Daily Emission)

Unmitigated Construction

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Year	lb/day										lb/day					
2018	4.6728	48.2819	23.3714	0.0456	18.2675	2.5787	20.8462	9.9840	2.3724	12.3565	0.0000	4,540.9250	4,540.9250	1.2008	0.0000	4,559.5653
2019	2.9804	25.2527	22.0861	0.0452	1.1725	1.3229	2.4955	0.3158	1.2440	1.5598	0.0000	4,469.0271	4,469.0271	0.7280	0.0000	4,487.2274
Maximum	**4.6728**	**48.2819**	**23.3714**	**0.0456**	**18.2675**	**2.5787**	**20.8462**	**9.9840**	**2.3724**	**12.3565**	**0.0000**	**4,540.9250**	**4,540.9250**	**1.2008**	**0.0000**	**4,559.5653**

2.2 Overall Operational

Unmitigated Operational

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Area	4.0353	0.0000	0.0000	0.0000		0.0000	0.0000		0.0000	0.0000		0.0000	0.0000	0.0000		0.0000
Energy	0.0000	0.0000	0.0000	0.0000		0.0000	0.0000		0.0000	0.0000		0.0000	0.0000	0.0000	0.0000	0.0000
Mobile	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000		0.0000	0.0000	0.0000		0.0000
Total	**4.0353**	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**		**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**

3.0 Construction Detail

Construction Phase

Phase Number	Phase Name	Phase Type	Start Date	End Date	Num Days Week	Num Days	Phase Description
1	Architectural Coating	Architectural Coating	1/29/2019	2/21/2019	5	18	
2	Building Construction	Building Construction	2/15/2018	1/2/2019	5	230	
3	Demolition	Demolition	1/1/2018	1/26/2018	5	20	
4	Grading	Grading	2/3/2018	2/14/2018	5	8	
5	Paving	Paving	1/3/2019	1/28/2019	5	18	
6	Site Preparation	Site Preparation	1/27/2018	2/2/2018	5	5	

Acres of Grading (Site Preparation Phase): 0

Acres of Grading (Grading Phase): 4

Acres of Paving: 0

Residential Indoor: 0; Residential Outdoor: 0; Non-Residential Indoor: 0; Non-Residential Outdoor: 0; Striped Parking Area: 0

OffRoad Equipment

Phase Name	Offroad Equipment Type	Amount	Usage Hours	Horse Power	Load Factor
Architectural Coating	Air Compressors	1	6.00	78	0.48
Paving	Cement and Mortar Mixers	2	6.00	9	0.56
Demolition	Concrete/Industrial Saws	1	8.00	81	0.73
Demolition	Excavators	3	8.00	158	0.38
Building Construction	Cranes	1	7.00	231	0.29
Building Construction	Forklifts	3	8.00	89	0.20
Grading	Excavators	1	8.00	158	0.38
Paving	Pavers	1	8.00	130	0.42
Paving	Rollers	2	6.00	80	0.38
Demolition	Rubber Tired Dozers	2	8.00	247	0.40
Grading	Rubber Tired Dozers	1	8.00	247	0.40
Building Construction	Tractors/Loaders/Backhoes	3	7.00	97	0.37
Building Construction	Generator Sets	1	8.00	84	0.74
Grading	Tractors/Loaders/Backhoes	3	8.00	97	0.37
Paving	Tractors/Loaders/Backhoes	1	8.00	97	0.37

Site Preparation	Tractors/Loaders/Backhoes	4	8.00	97	0.37
Grading	Graders	1	8.00	187	0.41
Paving	Paving Equipment	2	6.00	132	0.36
Site Preparation	Rubber Tired Dozers	3	8.00	247	0.40
Building Construction	Welders	1	8.00	46	0.45

Trips and VMT

Phase Name	Offroad Equipment Count	Worker Trip Number	Vendor Trip Number	Hauling Trip Number	Worker Trip Length	Vendor Trip Length	Hauling Trip Length	Worker Vehicle Class	Vendor Vehicle Class	Hauling Vehicle Class
Architectural Coating	1	17.00	0.00	0.00	14.70	6.90	20.00	LD_Mix	HDT_Mix	HHDT
Building Construction	9	86.00	33.00	0.00	14.70	6.90	20.00	LD_Mix	HDT_Mix	HHDT
Demolition	6	15.00	0.00	0.00	14.70	6.90	20.00	LD_Mix	HDT_Mix	HHDT
Grading	6	15.00	0.00	0.00	14.70	6.90	20.00	LD_Mix	HDT_Mix	HHDT
Paving	8	20.00	0.00	0.00	14.70	6.90	20.00	LD_Mix	HDT_Mix	HHDT
Site Preparation	7	18.00	0.00	0.00	14.70	6.90	20.00	LD_Mix	HDT_Mix	HHDT

3.1 Mitigation Measures Construction

3.2 Architectural Coating - 2019

Unmitigated Construction On-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Archit. Coating	0.0000					0.0000	0.0000		0.0000	0.0000			0.0000			0.0000
Off-Road	0.2664	1.8354	1.8413	2.9700e-003		0.1288	0.1288		0.1288	0.1288		281.4481	281.4481	0.0238		282.0423
Total	**0.2664**	**1.8354**	**1.8413**	**2.9700e-003**		**0.1288**	**0.1288**		**0.1288**	**0.1288**		**281.4481**	**281.4481**	**0.0238**		**282.0423**

3.3 Building Construction - 2018

Unmitigated Construction On-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Off-Road	2.6795	23.3900	17.5804	0.0269		1.4999	1.4999		1.4099	1.4099		2,620.9351	2,620.9351	0.6421		2,636.9883
Total	**2.6795**	**23.3900**	**17.5804**	**0.0269**		**1.4999**	**1.4999**		**1.4099**	**1.4099**		**2,620.9351**	**2,620.9351**	**0.6421**		**2,636.9883**

3.3 Building Construction - 2019

Unmitigated Construction On-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Off-Road	2.3612	21.0788	17.1638	0.0269		1.2899	1.2899		1.2127	1.2127		2,591.5802	2,591.5802	0.6313		2,607.3635
Total	**2.3612**	**21.0788**	**17.1638**	**0.0269**		**1.2899**	**1.2899**		**1.2127**	**1.2127**		**2,591.5802**	**2,591.5802**	**0.6313**		**2,607.3635**

3.4 Demolition - 2018

Unmitigated Construction On-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Off-Road	3.7190	38.3225	22.3040	0.0388		1.9386	1.9386		1.8048	1.8048		3,871.7665	3,871.7665	1.0667		3,898.4344
Total	**3.7190**	**38.3225**	**22.3040**	**0.0388**		**1.9386**	**1.9386**		**1.8048**	**1.8048**		**3,871.7665**	**3,871.7665**	**1.0667**		**3,898.4344**

3.5 Grading - 2018

Unmitigated Construction On-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Fugitive Dust					6.5523	0.0000	6.5523	3.3675	0.0000	3.3675			0.0000			0.0000
Off-Road	2.7733	30.6725	16.5770	0.0297		1.5513	1.5513		1.4272	1.4272		2,988.0216	2,988.0216	0.9302		3,011.2769
Total	**2.7733**	**30.6725**	**16.5770**	**0.0297**	**6.5523**	**1.5513**	**8.1037**	**3.3675**	**1.4272**	**4.7947**		**2,988.0216**	**2,988.0216**	**0.9302**		**3,011.2769**

3.6 Paving - 2019

Unmitigated Construction On-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Off-Road	1.2679	12.7604	12.3130	0.0189		0.7196	0.7196		0.6637	0.6637		1,843.3191	1,843.3191	0.5671		1,857.4966
Paving	0.0000					0.0000	0.0000		0.0000	0.0000			0.0000			0.0000
Total	**1.2679**	**12.7604**	**12.3130**	**0.0189**		**0.7196**	**0.7196**		**0.6637**	**0.6637**		**1,843.3191**	**1,843.3191**	**0.5671**		**1,857.4966**

3.7 Site Preparation - 2018

Unmitigated Construction On-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Fugitive Dust					18.0663	0.0000	18.0663	9.9307	0.0000	9.9307			0.0000			0.0000
Off-Road	4.5627	48.1988	22.4763	0.0380		2.5769	2.5769		2.3708	2.3708		3,831.6239	3,831.6239	1.1928		3,861.4448
Total	**4.5627**	**48.1988**	**22.4763**	**0.0380**	**18.0663**	**2.5769**	**20.6432**	**9.9307**	**2.3708**	**12.3014**		**3,831.6239**	**3,831.6239**	**1.1928**		**3,861.4448**

CSULA EIR - Parking

Los Angeles-South Coast County, Annual

1.0 Project Characteristics

1.1 Land Usage

Land Uses	Size	Metric	Lot Acreage	Floor Surface Area	Population
Unenclosed Parking with Elevator	1,650.00	Space	14.85	660,000.00	0

1.2 Other Project Characteristics

Urbanization	Urban	**Wind Speed (m/s)**	2.2	**Precipitation Freq (Days)**	33
Climate Zone	12			**Operational Year**	2019
Utility Company	Los Angeles Department of Water & Power				
CO2 Intensity (lb/MWhr)	1227.89	**CH4 Intensity (lb/MWhr)**	0.029	**N2O Intensity (lb/MWhr)**	0.006

1.3 User Entered Comments & Non-Default Data

Project Characteristics -

Land Use - "1650 parking spaces, including up to 100 new parking spaces." Assumption: the parking structure will be unenclosed with elevator (see CalEEMod pg. 23)

Construction Phase -

Table Name	Column Name	Default Value	New Value
tblArchitecturalCoating	EF_Parking	100.00	0.00
tblAreaCoating	Area_EF_Parking	100	0
tblProjectCharacteristics	OperationalYear	2018	2019

2.0 Emissions Summary

2.1 Overall Construction

Unmitigated Construction

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Year	tons/yr										MT/yr					
2017	0.4052	3.6647	2.7341	5.7000e-003	0.3973	0.1715	0.5688	0.1513	0.1598	0.3111	0.0000	524.8954	524.8954	0.0841	0.0000	526.9986
2018	0.5142	4.1743	3.8947	9.5500e-003	0.3941	0.1798	0.5739	0.1063	0.1690	0.2753	0.0000	875.7193	875.7193	0.0989	0.0000	878.1905
Maximum	**0.5142**	**4.1743**	**3.8947**	**9.5500e-003**	**0.3973**	**0.1798**	**0.5739**	**0.1513**	**0.1690**	**0.3111**	**0.0000**	**875.7193**	**875.7193**	**0.0989**	**0.0000**	**878.1905**

2.2 Overall Operational

Unmitigated Operational

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	tons/yr										MT/yr					
Area	0.0447	2.0000e-004	0.0213	0.0000		8.0000e-005	8.0000e-005		8.0000e-005	8.0000e-005	0.0000	0.0410	0.0410	1.1000e-004	0.0000	0.0437
Energy	0.0000	0.0000	0.0000	0.0000		0.0000	0.0000		0.0000	0.0000	0.0000	1,036.6168	1,036.6168	0.0245	5.0700e-003	1,038.7384
Mobile	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Waste						0.0000	0.0000		0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Water						0.0000	0.0000		0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Total	**0.0447**	**2.0000e-004**	**0.0213**	**0.0000**	**0.0000**	**8.0000e-005**	**8.0000e-005**	**0.0000**	**8.0000e-005**	**8.0000e-005**	**0.0000**	**1,036.6578**	**1,036.6578**	**0.0246**	**5.0700e-003**	**1,038.7821**

3.0 Construction Detail

Construction Phase

Phase Number	Phase Name	Phase Type	Start Date	End Date	Num Days Week	Num Days	Phase Description
1	Demolition	Demolition	6/1/2017	6/28/2017	5	20	
2	Site Preparation	Site Preparation	6/29/2017	7/12/2017	5	10	
3	Grading	Grading	7/13/2017	8/23/2017	5	30	
4	Building Construction	Building Construction	8/24/2017	10/17/2018	5	300	
5	Paving	Paving	10/18/2018	11/14/2018	5	20	
6	Architectural Coating	Architectural Coating	11/15/2018	12/12/2018	5	20	

Acres of Grading (Site Preparation Phase): 0

Acres of Grading (Grading Phase): 75

Acres of Paving: 14.85

Residential Indoor: 0; Residential Outdoor: 0; Non-Residential Indoor: 0; Non-Residential Outdoor: 0; Striped Parking Area: 39,600

OffRoad Equipment

Phase Name	Offroad Equipment Type	Amount	Usage Hours	Horse Power	Load Factor
Architectural Coating	Air Compressors	1	6.00	78	0.48
Demolition	Excavators	3	8.00	158	0.38
Demolition	Concrete/Industrial Saws	1	8.00	81	0.73
Grading	Excavators	2	8.00	158	0.38
Building Construction	Cranes	1	7.00	231	0.29
Building Construction	Forklifts	3	8.00	89	0.20
Building Construction	Generator Sets	1	8.00	84	0.74
Paving	Pavers	2	8.00	130	0.42
Paving	Rollers	2	8.00	80	0.38
Demolition	Rubber Tired Dozers	2	8.00	247	0.40
Grading	Rubber Tired Dozers	1	8.00	247	0.40
Building Construction	Tractors/Loaders/Backhoes	3	7.00	97	0.37

Grading	Graders	1	8.00	187	0.41
Grading	Tractors/Loaders/Backhoes	2	8.00	97	0.37
Paving	Paving Equipment	2	8.00	132	0.36
Site Preparation	Tractors/Loaders/Backhoes	4	8.00	97	0.37
Site Preparation	Rubber Tired Dozers	3	8.00	247	0.40
Grading	Scrapers	2	8.00	367	0.48
Building Construction	Welders	1	8.00	46	0.45

Trips and VMT

Phase Name	Offroad Equipment Count	Worker Trip Number	Vendor Trip Number	Hauling Trip Number	Worker Trip Length	Vendor Trip Length	Hauling Trip Length	Worker Vehicle Class	Vendor Vehicle Class	Hauling Vehicle Class
Architectural Coating	1	55.00	0.00	0.00	14.70	6.90	20.00	LD_Mix	HDT_Mix	HHDT
Building Construction	9	277.00	108.00	0.00	14.70	6.90	20.00	LD_Mix	HDT_Mix	HHDT
Demolition	6	15.00	0.00	0.00	14.70	6.90	20.00	LD_Mix	HDT_Mix	HHDT
Grading	8	20.00	0.00	0.00	14.70	6.90	20.00	LD_Mix	HDT_Mix	HHDT
Paving	6	15.00	0.00	0.00	14.70	6.90	20.00	LD_Mix	HDT_Mix	HHDT
Site Preparation	7	18.00	0.00	0.00	14.70	6.90	20.00	LD_Mix	HDT_Mix	HHDT

3.1 Mitigation Measures Construction

3.2 Demolition - 2017

Unmitigated Construction On-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	tons/yr										MT/yr					
Off-Road	0.0410	0.4275	0.2301	3.9000e-004		0.0219	0.0219		0.0204	0.0204	0.0000	35.6005	35.6005	9.7300e-003	0.0000	35.8438
Total	**0.0410**	**0.4275**	**0.2301**	**3.9000e-004**		**0.0219**	**0.0219**		**0.0204**	**0.0204**	**0.0000**	**35.6005**	**35.6005**	**9.7300e-003**	**0.0000**	**35.8438**

Unmitigated Construction Off-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	tons/yr										MT/yr					
Hauling	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Vendor	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Worker	9.4000e-004	8.2000e-004	8.7500e-003	2.0000e-005	1.6400e-003	2.0000e-005	1.6600e-003	4.4000e-004	1.0000e-005	4.5000e-004	0.0000	1.6793	1.6793	7.0000e-005	0.0000	1.6810
Total	**9.4000e-004**	**8.2000e-004**	**8.7500e-003**	**2.0000e-005**	**1.6400e-003**	**2.0000e-005**	**1.6600e-003**	**4.4000e-004**	**1.0000e-005**	**4.5000e-004**	**0.0000**	**1.6793**	**1.6793**	**7.0000e-005**	**0.0000**	**1.6810**

3.3 Site Preparation - 2017

Unmitigated Construction On-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	tons/yr										MT/yr					
Fugitive Dust					0.0903	0.0000	0.0903	0.0497	0.0000	0.0497	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Off-Road	0.0248	0.2614	0.1173	1.9000e-004		0.0144	0.0144		0.0132	0.0132	0.0000	17.6672	17.6672	5.4100e-003	0.0000	17.8025
Total	**0.0248**	**0.2614**	**0.1173**	**1.9000e-004**	**0.0903**	**0.0144**	**0.1047**	**0.0497**	**0.0132**	**0.0629**	**0.0000**	**17.6672**	**17.6672**	**5.4100e-003**	**0.0000**	**17.8025**

Unmitigated Construction Off-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	tons/yr										MT/yr					
Hauling	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Vendor	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000

Worker	5.7000e-004	4.9000e-004	5.2500e-003	1.0000e-005	9.9000e-004	1.0000e-005	1.0000e-003	2.6000e-004	1.0000e-005	2.7000e-004	0.0000	1.0076	1.0076	4.0000e-005	0.0000	1.0086
Total	**5.7000e-004**	**4.9000e-004**	**5.2500e-003**	**1.0000e-005**	**9.9000e-004**	**1.0000e-005**	**1.0000e-003**	**2.6000e-004**	**1.0000e-005**	**2.7000e-004**	**0.0000**	**1.0076**	**1.0076**	**4.0000e-005**	**0.0000**	**1.0086**

3.4 Grading - 2017

Unmitigated Construction On-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	tons/yr										MT/yr					
Fugitive Dust					0.1301	0.0000	0.1301	0.0540	0.0000	0.0540	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Off-Road	0.0862	1.0191	0.5817	9.3000e-004		0.0461	0.0461		0.0424	0.0424	0.0000	86.3398	86.3398	0.0265	0.0000	87.0011
Total	**0.0862**	**1.0191**	**0.5817**	**9.3000e-004**	**0.1301**	**0.0461**	**0.1762**	**0.0540**	**0.0424**	**0.0964**	**0.0000**	**86.3398**	**86.3398**	**0.0265**	**0.0000**	**87.0011**

Unmitigated Construction Off-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	tons/yr										MT/yr					
Hauling	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Vendor	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Worker	1.8800e-003	1.6400e-003	0.0175	4.0000e-005	3.2900e-003	3.0000e-005	3.3200e-003	8.7000e-004	3.0000e-005	9.0000e-004	0.0000	3.3585	3.3585	1.4000e-004	0.0000	3.3620
Total	**1.8800e-003**	**1.6400e-003**	**0.0175**	**4.0000e-005**	**3.2900e-003**	**3.0000e-005**	**3.3200e-003**	**8.7000e-004**	**3.0000e-005**	**9.0000e-004**	**0.0000**	**3.3585**	**3.3585**	**1.4000e-004**	**0.0000**	**3.3620**

3.5 Building Construction - 2017

Unmitigated Construction On-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	tons/yr										MT/yr					
Off-Road	0.1433	1.2215	0.8364	1.2400e-003		0.0822	0.0822		0.0772	0.0772	0.0000	110.6267	110.6267	0.0273	0.0000	111.3081
Total	**0.1433**	**1.2215**	**0.8364**	**1.2400e-003**		**0.0822**	**0.0822**		**0.0772**	**0.0772**	**0.0000**	**110.6267**	**110.6267**	**0.0273**	**0.0000**	**111.3081**

Unmitigated Construction Off-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	tons/yr										MT/yr					
Hauling	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Vendor	0.0264	0.6628	0.1934	1.3100e-003	0.0313	5.4600e-003	0.0368	9.0300e-003	5.2200e-003	0.0143	0.0000	125.9695	125.9695	9.0700e-003	0.0000	126.1963
Worker	0.0800	0.0695	0.7436	1.5800e-003	0.1396	1.3200e-003	0.1410	0.0371	1.2200e-003	0.0383	0.0000	142.6464	142.6464	5.9500e-003	0.0000	142.7952
Total	**0.1064**	**0.7323**	**0.9370**	**2.8900e-003**	**0.1709**	**6.7800e-003**	**0.1777**	**0.0461**	**6.4400e-003**	**0.0526**	**0.0000**	**268.6159**	**268.6159**	**0.0150**	**0.0000**	**268.9915**

3.5 Building Construction - 2018

Unmitigated Construction On-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	tons/yr										MT/yr					
Off-Road	0.2787	2.4326	1.8284	2.8000e-003		0.1560	0.1560		0.1466	0.1466	0.0000	247.2779	247.2779	0.0606	0.0000	248.7925
Total	**0.2787**	**2.4326**	**1.8284**	**2.8000e-003**		**0.1560**	**0.1560**		**0.1466**	**0.1466**	**0.0000**	**247.2779**	**247.2779**	**0.0606**	**0.0000**	**248.7925**

Unmitigated Construction Off-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	tons/yr										MT/yr					
Hauling	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Vendor	0.0526	1.4066	0.3955	2.9400e-003	0.0708	9.7700e-003	0.0805	0.0204	9.3400e-003	0.0298	0.0000	283.7950	283.7950	0.0195	0.0000	284.2816
Worker	0.1596	0.1366	1.4687	3.4800e-003	0.3157	2.8700e-003	0.3186	0.0838	2.6500e-003	0.0865	0.0000	313.6600	313.6600	0.0118	0.0000	313.9548
Total	**0.2122**	**1.5432**	**1.8642**	**6.4200e-003**	**0.3864**	**0.0126**	**0.3991**	**0.1043**	**0.0120**	**0.1163**	**0.0000**	**597.4549**	**597.4549**	**0.0313**	**0.0000**	**598.2364**

3.6 Paving - 2018

Unmitigated Construction On-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	tons/yr										MT/yr					
Off-Road	0.0164	0.1752	0.1480	2.3000e-004		9.5600e-003	9.5600e-003		8.8000e-003	8.8000e-003	0.0000	20.8116	20.8116	6.4800e-003	0.0000	20.9736
Paving	0.0000					0.0000	0.0000		0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Total	**0.0164**	**0.1752**	**0.1480**	**2.3000e-004**		**9.5600e-003**	**9.5600e-003**		**8.8000e-003**	**8.8000e-003**	**0.0000**	**20.8116**	**20.8116**	**6.4800e-003**	**0.0000**	**20.9736**

Unmitigated Construction Off-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	tons/yr										MT/yr					

Hauling	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Vendor	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Worker	8.3000e-004	7.1000e-004	7.6500e-003	2.0000e-005	1.6400e-003	1.0000e-005	1.6600e-003	4.4000e-004	1.0000e-005	4.5000e-004	0.0000	1.6332	1.6332	6.0000e-005	0.0000	1.6347
Total	**8.3000e-004**	**7.1000e-004**	**7.6500e-003**	**2.0000e-005**	**1.6400e-003**	**1.0000e-005**	**1.6600e-003**	**4.4000e-004**	**1.0000e-005**	**4.5000e-004**	**0.0000**	**1.6332**	**1.6332**	**6.0000e-005**	**0.0000**	**1.6347**

3.7 Architectural Coating - 2018

Unmitigated Construction On-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	tons/yr										MT/yr					
Archit. Coating	0.0000					0.0000	0.0000		0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Off-Road	2.9900e-003	0.0201	0.0185	3.0000e-005		1.5100e-003	1.5100e-003		1.5100e-003	1.5100e-003	0.0000	2.5533	2.5533	2.4000e-004	0.0000	2.5593
Total	**2.9900e-003**	**0.0201**	**0.0185**	**3.0000e-005**		**1.5100e-003**	**1.5100e-003**		**1.5100e-003**	**1.5100e-003**	**0.0000**	**2.5533**	**2.5533**	**2.4000e-004**	**0.0000**	**2.5593**

Unmitigated Construction Off-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	tons/yr										MT/yr					
Hauling	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Vendor	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Worker	3.0500e-003	2.6100e-003	0.0280	7.0000e-005	6.0300e-003	5.0000e-005	6.0800e-003	1.6000e-003	5.0000e-005	1.6500e-003	0.0000	5.9884	5.9884	2.3000e-004	0.0000	5.9940
Total	**3.0500e-003**	**2.6100e-003**	**0.0280**	**7.0000e-005**	**6.0300e-003**	**5.0000e-005**	**6.0800e-003**	**1.6000e-003**	**5.0000e-005**	**1.6500e-003**	**0.0000**	**5.9884**	**5.9884**	**2.3000e-004**	**0.0000**	**5.9940**

CSULA EIR - Parking

Los Angeles-South Coast County, Summer

1.0 Project Characteristics

1.1 Land Usage

Land Uses	Size	Metric	Lot Acreage	Floor Surface Area	Population
Unenclosed Parking with Elevator	1,650.00	Space	14.85	660,000.00	0

1.2 Other Project Characteristics

Urbanization	Urban	**Wind Speed (m/s)**	2.2	**Precipitation Freq (Days)**	33
Climate Zone	12			**Operational Year**	2019
Utility Company	Los Angeles Department of Water & Power				
CO2 Intensity (lb/MWhr)	1227.89	**CH4 Intensity (lb/MWhr)**	0.029	**N2O Intensity (lb/MWhr)**	0.006

1.3 User Entered Comments & Non-Default Data

Project Characteristics -

Land Use - "1650 parking spaces, including up to 100 new parking spaces." Assumption: the parking structure will be unenclosed with elevator (see CalEEMod pg. 23)

Construction Phase -

Table Name	Column Name	Default Value	New Value
tblArchitecturalCoating	EF_Parking	100.00	0.00
tblAreaCoating	Area_EF_Parking	100	0
tblProjectCharacteristics	OperationalYear	2018	2019

2.0 Emissions Summary

2.1 Overall Construction (Maximum Daily Emission)

Unmitigated Construction

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Year	lb/day										lb/day					
2017	5.8734	68.0355	40.0138	0.0915	18.2675	3.0748	21.1479	9.9840	2.8288	12.6341	0.0000	9,273.2850	9,273.2850	1.9548	0.0000	9,298.5945
2018	4.7067	37.7814	36.1595	0.0904	3.7876	1.6208	5.4084	1.0202	1.5246	2.5448	0.0000	9,135.7936	9,135.7936	0.9727	0.0000	9,160.1109
Maximum	**5.8734**	**68.0355**	**40.0138**	**0.0915**	**18.2675**	**3.0748**	**21.1479**	**9.9840**	**2.8288**	**12.6341**	**0.0000**	**9,273.2850**	**9,273.2850**	**1.9548**	**0.0000**	**9,298.5945**

2.2 Overall Operational

Unmitigated Operational

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Area	0.2499	1.5800e-003	0.1701	1.0000e-005		6.1000e-004	6.1000e-004		6.1000e-004	6.1000e-004		0.3611	0.3611	9.8000e-004		0.3856
Energy	0.0000	0.0000	0.0000	0.0000		0.0000	0.0000		0.0000	0.0000		0.0000	0.0000	0.0000	0.0000	0.0000
Mobile	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000		0.0000	0.0000	0.0000		0.0000
Total	**0.2499**	**1.5800e-003**	**0.1701**	**1.0000e-005**	**0.0000**	**6.1000e-004**	**6.1000e-004**	**0.0000**	**6.1000e-004**	**6.1000e-004**		**0.3611**	**0.3611**	**9.8000e-004**	**0.0000**	**0.3856**

3.0 Construction Detail

Construction Phase

Phase Number	Phase Name	Phase Type	Start Date	End Date	Num Days Week	Num Days	Phase Description
1	Demolition	Demolition	6/1/2017	6/28/2017	5	20	
2	Site Preparation	Site Preparation	6/29/2017	7/12/2017	5	10	
3	Grading	Grading	7/13/2017	8/23/2017	5	30	
4	Building Construction	Building Construction	8/24/2017	10/17/2018	5	300	
5	Paving	Paving	10/18/2018	11/14/2018	5	20	
6	Architectural Coating	Architectural Coating	11/15/2018	12/12/2018	5	20	

Acres of Grading (Site Preparation Phase): 0

Acres of Grading (Grading Phase): 75

Acres of Paving: 14.85

Residential Indoor: 0; Residential Outdoor: 0; Non-Residential Indoor: 0; Non-Residential Outdoor: 0; Striped Parking Area: 39,600

OffRoad Equipment

Phase Name	Offroad Equipment Type	Amount	Usage Hours	Horse Power	Load Factor
Architectural Coating	Air Compressors	1	6.00	78	0.48
Demolition	Excavators	3	8.00	158	0.38
Demolition	Concrete/Industrial Saws	1	8.00	81	0.73
Grading	Excavators	2	8.00	158	0.38
Building Construction	Cranes	1	7.00	231	0.29
Building Construction	Forklifts	3	8.00	89	0.20
Building Construction	Generator Sets	1	8.00	84	0.74
Paving	Pavers	2	8.00	130	0.42
Paving	Rollers	2	8.00	80	0.38
Demolition	Rubber Tired Dozers	2	8.00	247	0.40
Grading	Rubber Tired Dozers	1	8.00	247	0.40
Building Construction	Tractors/Loaders/Backhoes	3	7.00	97	0.37
Grading	Graders	1	8.00	187	0.41
Grading	Tractors/Loaders/Backhoes	2	8.00	97	0.37
Paving	Paving Equipment	2	8.00	132	0.36

Site Preparation	Tractors/Loaders/Backhoes		4	8.00	97	0.37
Site Preparation	Rubber Tired Dozers		3	8.00	247	0.40
Grading	Scrapers		2	8.00	367	0.48
Building Construction	Welders		1	8.00	46	0.45

Trips and VMT

Phase Name	Offroad Equipment Count	Worker Trip Number	Vendor Trip Number	Hauling Trip Number	Worker Trip Length	Vendor Trip Length	Hauling Trip Length	Worker Vehicle Class	Vendor Vehicle Class	Hauling Vehicle Class
Architectural Coating	1	55.00	0.00	0.00	14.70	6.90	20.00	LD_Mix	HDT_Mix	HHDT
Building Construction	9	277.00	108.00	0.00	14.70	6.90	20.00	LD_Mix	HDT_Mix	HHDT
Demolition	6	15.00	0.00	0.00	14.70	6.90	20.00	LD_Mix	HDT_Mix	HHDT
Grading	8	20.00	0.00	0.00	14.70	6.90	20.00	LD_Mix	HDT_Mix	HHDT
Paving	6	15.00	0.00	0.00	14.70	6.90	20.00	LD_Mix	HDT_Mix	HHDT
Site Preparation	7	18.00	0.00	0.00	14.70	6.90	20.00	LD_Mix	HDT_Mix	HHDT

3.1 Mitigation Measures Construction

3.2 Demolition - 2017

Unmitigated Construction On-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Off-Road	4.1031	42.7475	23.0122	0.0388		2.1935	2.1935		2.0425	2.0425		3,924.2833	3,924.2833	1.0730		3,951.1070
Total	**4.1031**	**42.7475**	**23.0122**	**0.0388**		**2.1935**	**2.1935**		**2.0425**	**2.0425**		**3,924.2833**	**3,924.2833**	**1.0730**		**3,951.1070**

Unmitigated Construction Off-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e

Category	lb/day										lb/day					
Hauling	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000		0.0000	0.0000	0.0000		0.0000
Vendor	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000		0.0000	0.0000	0.0000		0.0000
Worker	0.0938	0.0720	0.9234	1.9500e-003	0.1677	1.5600e-003	0.1692	0.0445	1.4400e-003	0.0459		193.3376	193.3376	8.0300e-003		193.5383
Total	**0.0938**	**0.0720**	**0.9234**	**1.9500e-003**	**0.1677**	**1.5600e-003**	**0.1692**	**0.0445**	**1.4400e-003**	**0.0459**		**193.3376**	**193.3376**	**8.0300e-003**		**193.5383**

3.3 Site Preparation - 2017

Unmitigated Construction On-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Fugitive Dust					18.0663	0.0000	18.0663	9.9307	0.0000	9.9307			0.0000			0.0000
Off-Road	4.9608	52.2754	23.4554	0.0380		2.8786	2.8786		2.6483	2.6483		3,894.9500	3,894.9500	1.1934		3,924.7852
Total	**4.9608**	**52.2754**	**23.4554**	**0.0380**	**18.0663**	**2.8786**	**20.9448**	**9.9307**	**2.6483**	**12.5790**		**3,894.9500**	**3,894.9500**	**1.1934**		**3,924.7852**

Unmitigated Construction Off-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Hauling	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000		0.0000	0.0000	0.0000		0.0000
Vendor	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000		0.0000	0.0000	0.0000		0.0000
Worker	0.1126	0.0863	1.1081	2.3300e-003	0.2012	1.8700e-003	0.2031	0.0534	1.7300e-003	0.0551		232.0052	232.0052	9.6300e-003		232.2460
Total	**0.1126**	**0.0863**	**1.1081**	**2.3300e-003**	**0.2012**	**1.8700e-003**	**0.2031**	**0.0534**	**1.7300e-003**	**0.0551**		**232.0052**	**232.0052**	**9.6300e-003**		**232.2460**

3.4 Grading - 2017

Unmitigated Construction On-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Fugitive Dust					8.6733	0.0000	8.6733	3.5965	0.0000	3.5965			0.0000			0.0000
Off-Road	5.7483	67.9396	38.7826	0.0620		3.0727	3.0727		2.8269	2.8269		6,344.8863	6,344.8863	1.9441		6,393.4879
Total	**5.7483**	**67.9396**	**38.7826**	**0.0620**	**8.6733**	**3.0727**	**11.7460**	**3.5965**	**2.8269**	**6.4234**		**6,344.8863**	**6,344.8863**	**1.9441**		**6,393.4879**

Unmitigated Construction Off-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Hauling	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000		0.0000	0.0000	0.0000		0.0000
Vendor	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000		0.0000	0.0000	0.0000		0.0000
Worker	0.1251	0.0959	1.2312	2.5900e-003	0.2236	2.0800e-003	0.2256	0.0593	1.9200e-003	0.0612		257.7835	257.7835	0.0107		258.0511
Total	**0.1251**	**0.0959**	**1.2312**	**2.5900e-003**	**0.2236**	**2.0800e-003**	**0.2256**	**0.0593**	**1.9200e-003**	**0.0612**		**257.7835**	**257.7835**	**0.0107**		**258.0511**

3.5 Building Construction - 2017

Unmitigated Construction On-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Off-Road	3.1149	26.5546	18.1825	0.0269		1.7879	1.7879		1.6791	1.6791		2,650.9797	2,650.9797	0.6531		2,667.3078

Total	**3.1149**	**26.5546**	**18.1825**	**0.0269**		**1.7879**	**1.7879**		**1.6791**	**1.6791**		**2,650.9797**	**2,650.9797**	**0.6531**		**2,667.3078**

Unmitigated Construction Off-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Hauling	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000		0.0000	0.0000	0.0000		0.0000
Vendor	0.5638	14.0816	4.0066	0.0287	0.6914	0.1179	0.8093	0.1991	0.1128	0.3119		3,052.0036	3,052.0036	0.2110		3,057.2795
Worker	1.7322	1.3286	17.0523	0.0359	3.0962	0.0288	3.1250	0.8211	0.0266	0.8477		3,570.3016	3,570.3016	0.1482		3,574.0072
Total	**2.2960**	**15.4102**	**21.0589**	**0.0646**	**3.7876**	**0.1467**	**3.9343**	**1.0202**	**0.1394**	**1.1596**		**6,622.3053**	**6,622.3053**	**0.3593**		**6,631.2866**

3.5 Building Construction - 2018

Unmitigated Construction On-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Off-Road	2.6795	23.3900	17.5804	0.0269		1.4999	1.4999		1.4099	1.4099		2,620.9351	2,620.9351	0.6421		2,636.9883
Total	**2.6795**	**23.3900**	**17.5804**	**0.0269**		**1.4999**	**1.4999**		**1.4099**	**1.4099**		**2,620.9351**	**2,620.9351**	**0.6421**		**2,636.9883**

Unmitigated Construction Off-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Hauling	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000		0.0000	0.0000	0.0000		0.0000

Vendor	0.4969	13.2365	3.6190	0.0286	0.6914	0.0933	0.7847	0.1991	0.0892	0.2883		3,042.1377	3,042.1377	0.2003		3,047.1455
Worker	1.5304	1.1549	14.9601	0.0349	3.0962	0.0276	3.1238	0.8211	0.0255	0.8466		3,472.7208	3,472.7208	0.1303		3,475.9771
Total	**2.0272**	**14.3914**	**18.5791**	**0.0635**	**3.7876**	**0.1209**	**3.9085**	**1.0202**	**0.1147**	**1.1349**		**6,514.8585**	**6,514.8585**	**0.3306**		**6,523.1226**

3.6 Paving - 2018

Unmitigated Construction On-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Off-Road	1.6437	17.5209	14.7964	0.0228		0.9561	0.9561		0.8797	0.8797		2,294.0887	2,294.0887	0.7142		2,311.9432
Paving	0.0000					0.0000	0.0000		0.0000	0.0000			0.0000			0.0000
Total	**1.6437**	**17.5209**	**14.7964**	**0.0228**		**0.9561**	**0.9561**		**0.8797**	**0.8797**		**2,294.0887**	**2,294.0887**	**0.7142**		**2,311.9432**

Unmitigated Construction Off-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Hauling	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000		0.0000	0.0000	0.0000		0.0000
Vendor	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000		0.0000	0.0000	0.0000		0.0000
Worker	0.0829	0.0625	0.8101	1.8900e-003	0.1677	1.4900e-003	0.1692	0.0445	1.3800e-003	0.0458		188.0535	188.0535	7.0500e-003		188.2298
Total	**0.0829**	**0.0625**	**0.8101**	**1.8900e-003**	**0.1677**	**1.4900e-003**	**0.1692**	**0.0445**	**1.3800e-003**	**0.0458**		**188.0535**	**188.0535**	**7.0500e-003**		**188.2298**

3.7 Architectural Coating - 2018

Unmitigated Construction On-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Archit. Coating	0.0000					0.0000	0.0000		0.0000	0.0000			0.0000			0.0000
Off-Road	0.2986	2.0058	1.8542	2.9700e-003		0.1506	0.1506		0.1506	0.1506		281.4485	281.4485	0.0267		282.1171
Total	**0.2986**	**2.0058**	**1.8542**	**2.9700e-003**		**0.1506**	**0.1506**		**0.1506**	**0.1506**		**281.4485**	**281.4485**	**0.0267**		**282.1171**

Unmitigated Construction Off-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Hauling	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000		0.0000	0.0000	0.0000		0.0000
Vendor	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000		0.0000	0.0000	0.0000		0.0000
Worker	0.3039	0.2293	2.9704	6.9300e-003	0.6148	5.4800e-003	0.6203	0.1630	5.0500e-003	0.1681		689.5294	689.5294	0.0259		690.1760
Total	**0.3039**	**0.2293**	**2.9704**	**6.9300e-003**	**0.6148**	**5.4800e-003**	**0.6203**	**0.1630**	**5.0500e-003**	**0.1681**		**689.5294**	**689.5294**	**0.0259**		**690.1760**

CSULA EIR - Parking

Los Angeles-South Coast County, Winter

1.0 Project Characteristics

1.1 Land Usage

Land Uses	Size	Metric	Lot Acreage	Floor Surface Area	Population
Unenclosed Parking with Elevator	1,650.00	Space	14.85	660,000.00	0

1.2 Other Project Characteristics

Urbanization	Urban	**Wind Speed (m/s)**	2.2	**Precipitation Freq (Days)**	33
Climate Zone	12			**Operational Year**	2019
Utility Company	Los Angeles Department of Water & Power				
CO2 Intensity (lb/MWhr)	1227.89	**CH4 Intensity (lb/MWhr)**	0.029	**N2O Intensity (lb/MWhr)**	0.006

1.3 User Entered Comments & Non-Default Data

Project Characteristics -

Land Use - "1650 parking spaces, including up to 100 new parking spaces." Assumption: the parking structure will be unenclosed with elevator (see CalEEMod pg. 23)

Construction Phase -

Table Name	Column Name	Default Value	New Value
tblArchitecturalCoating	EF_Parking	100.00	0.00
tblAreaCoating	Area_EF_Parking	100	0
tblProjectCharacteristics	OperationalYear	2018	2019

2.0 Emissions Summary

2.1 Overall Construction (Maximum Daily Emission)

Unmitigated Construction

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Year	lb/day										lb/day					
2017	5.8866	68.0459	39.9224	0.0887	18.2675	3.0748	21.1479	9.9840	2.8288	12.6341	0.0000	8,986.0934	8,986.0934	1.9542	0.0000	9,011.5582
2018	4.8910	37.9352	35.3329	0.0876	3.7876	1.6222	5.4098	1.0202	1.5260	2.5462	0.0000	8,851.9490	8,851.9490	0.9788	0.0000	8,876.4197
Maximum	**5.8866**	**68.0459**	**39.9224**	**0.0887**	**18.2675**	**3.0748**	**21.1479**	**9.9840**	**2.8288**	**12.6341**	**0.0000**	**8,986.0934**	**8,986.0934**	**1.9542**	**0.0000**	**9,011.5582**

2.2 Overall Operational

Unmitigated Operational

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Area	0.2499	1.5800e-003	0.1701	1.0000e-005		6.1000e-004	6.1000e-004		6.1000e-004	6.1000e-004		0.3611	0.3611	9.8000e-004		0.3856
Energy	0.0000	0.0000	0.0000	0.0000		0.0000	0.0000		0.0000	0.0000		0.0000	0.0000	0.0000	0.0000	0.0000
Mobile	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000		0.0000	0.0000	0.0000		0.0000
Total	**0.2499**	**1.5800e-003**	**0.1701**	**1.0000e-005**	**0.0000**	**6.1000e-004**	**6.1000e-004**	**0.0000**	**6.1000e-004**	**6.1000e-004**		**0.3611**	**0.3611**	**9.8000e-004**	**0.0000**	**0.3856**

3.0 Construction Detail

Construction Phase

Phase Number	Phase Name	Phase Type	Start Date	End Date	Num Days Week	Num Days	Phase Description
1	Demolition	Demolition	6/1/2017	6/28/2017	5	20	
2	Site Preparation	Site Preparation	6/29/2017	7/12/2017	5	10	
3	Grading	Grading	7/13/2017	8/23/2017	5	30	
4	Building Construction	Building Construction	8/24/2017	10/17/2018	5	300	
5	Paving	Paving	10/18/2018	11/14/2018	5	20	
6	Architectural Coating	Architectural Coating	11/15/2018	12/12/2018	5	20	

Acres of Grading (Site Preparation Phase): 0

Acres of Grading (Grading Phase): 75

Acres of Paving: 14.85

Residential Indoor: 0; Residential Outdoor: 0; Non-Residential Indoor: 0; Non-Residential Outdoor: 0; Striped Parking Area: 39,600

OffRoad Equipment

Phase Name	Offroad Equipment Type	Amount	Usage Hours	Horse Power	Load Factor
Architectural Coating	Air Compressors	1	6.00	78	0.48
Demolition	Excavators	3	8.00	158	0.38
Demolition	Concrete/Industrial Saws	1	8.00	81	0.73
Grading	Excavators	2	8.00	158	0.38
Building Construction	Cranes	1	7.00	231	0.29
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Building Construction	Generator Sets	1	8.00	84	0.74
Paving	Pavers	2	8.00	130	0.42
Paving	Rollers	2	8.00	80	0.38
Demolition	Rubber Tired Dozers	2	8.00	247	0.40
Grading	Rubber Tired Dozers	1	8.00	247	0.40
Building Construction	Tractors/Loaders/Backhoes	3	7.00	97	0.37
Grading	Graders	1	8.00	187	0.41
Grading	Tractors/Loaders/Backhoes	2	8.00	97	0.37
Paving	Paving Equipment	2	8.00	132	0.36

Site Preparation	Tractors/Loaders/Backhoes	4	8.00	97	0.37
Site Preparation	Rubber Tired Dozers	3	8.00	247	0.40
Grading	Scrapers	2	8.00	367	0.48
Building Construction	Welders	1	8.00	46	0.45

Trips and VMT

Phase Name	Offroad Equipment Count	Worker Trip Number	Vendor Trip Number	Hauling Trip Number	Worker Trip Length	Vendor Trip Length	Hauling Trip Length	Worker Vehicle Class	Vendor Vehicle Class	Hauling Vehicle Class
Architectural Coating	1	55.00	0.00	0.00	14.70	6.90	20.00	LD_Mix	HDT_Mix	HHDT
Building Construction	9	277.00	108.00	0.00	14.70	6.90	20.00	LD_Mix	HDT_Mix	HHDT
Demolition	6	15.00	0.00	0.00	14.70	6.90	20.00	LD_Mix	HDT_Mix	HHDT
Grading	8	20.00	0.00	0.00	14.70	6.90	20.00	LD_Mix	HDT_Mix	HHDT
Paving	6	15.00	0.00	0.00	14.70	6.90	20.00	LD_Mix	HDT_Mix	HHDT
Site Preparation	7	18.00	0.00	0.00	14.70	6.90	20.00	LD_Mix	HDT_Mix	HHDT

3.1 Mitigation Measures Construction

3.2 Demolition - 2017

Unmitigated Construction On-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Off-Road	4.1031	42.7475	23.0122	0.0388		2.1935	2.1935		2.0425	2.0425		3,924.2833	3,924.2833	1.0730		3,951.1070
Total	**4.1031**	**42.7475**	**23.0122**	**0.0388**		**2.1935**	**2.1935**		**2.0425**	**2.0425**		**3,924.2833**	**3,924.2833**	**1.0730**		**3,951.1070**

Unmitigated Construction Off-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e

Category	lb/day										lb/day					
Hauling	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000		0.0000	0.0000	0.0000		0.0000
Vendor	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000		0.0000	0.0000	0.0000		0.0000
Worker	0.1037	0.0797	0.8549	1.8300e-003	0.1677	1.5600e-003	0.1692	0.0445	1.4400e-003	0.0459		182.0869	182.0869	7.6100e-003		182.2772
Total	**0.1037**	**0.0797**	**0.8549**	**1.8300e-003**	**0.1677**	**1.5600e-003**	**0.1692**	**0.0445**	**1.4400e-003**	**0.0459**		**182.0869**	**182.0869**	**7.6100e-003**		**182.2772**

3.3 Site Preparation - 2017

Unmitigated Construction On-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Fugitive Dust					18.0663	0.0000	18.0663	9.9307	0.0000	9.9307			0.0000			0.0000
Off-Road	4.9608	52.2754	23.4554	0.0380		2.8786	2.8786		2.6483	2.6483		3,894.9500	3,894.9500	1.1934		3,924.7852
Total	**4.9608**	**52.2754**	**23.4554**	**0.0380**	**18.0663**	**2.8786**	**20.9448**	**9.9307**	**2.6483**	**12.5790**		**3,894.9500**	**3,894.9500**	**1.1934**		**3,924.7852**

Unmitigated Construction Off-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Hauling	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000		0.0000	0.0000	0.0000		0.0000
Vendor	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000		0.0000	0.0000	0.0000		0.0000
Worker	0.1245	0.0956	1.0259	2.2000e-003	0.2012	1.8700e-003	0.2031	0.0534	1.7300e-003	0.0551		218.5043	218.5043	9.1300e-003		218.7326
Total	**0.1245**	**0.0956**	**1.0259**	**2.2000e-003**	**0.2012**	**1.8700e-003**	**0.2031**	**0.0534**	**1.7300e-003**	**0.0551**		**218.5043**	**218.5043**	**9.1300e-003**		**218.7326**

3.4 Grading - 2017

Unmitigated Construction On-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Fugitive Dust					8.6733	0.0000	8.6733	3.5965	0.0000	3.5965			0.0000			0.0000
Off-Road	5.7483	67.9396	38.7826	0.0620		3.0727	3.0727		2.8269	2.8269		6,344.8863	6,344.8863	1.9441		6,393.4879
Total	**5.7483**	**67.9396**	**38.7826**	**0.0620**	**8.6733**	**3.0727**	**11.7460**	**3.5965**	**2.8269**	**6.4234**		**6,344.8863**	**6,344.8863**	**1.9441**		**6,393.4879**

Unmitigated Construction Off-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Hauling	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000		0.0000	0.0000	0.0000		0.0000
Vendor	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000		0.0000	0.0000	0.0000		0.0000
Worker	0.1383	0.1062	1.1398	2.4400e-003	0.2236	2.0800e-003	0.2256	0.0593	1.9200e-003	0.0612		242.7826	242.7826	0.0102		243.0362
Total	**0.1383**	**0.1062**	**1.1398**	**2.4400e-003**	**0.2236**	**2.0800e-003**	**0.2256**	**0.0593**	**1.9200e-003**	**0.0612**		**242.7826**	**242.7826**	**0.0102**		**243.0362**

3.5 Building Construction - 2017

Unmitigated Construction On-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					

Off-Road	3.1149	26.5546	18.1825	0.0269		1.7879	1.7879		1.6791	1.6791		2,650.9797	2,650.9797	0.6531		2,667.3078
Total	**3.1149**	**26.5546**	**18.1825**	**0.0269**		**1.7879**	**1.7879**		**1.6791**	**1.6791**		**2,650.9797**	**2,650.9797**	**0.6531**		**2,667.3078**

Unmitigated Construction Off-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Hauling	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000		0.0000	0.0000	0.0000		0.0000
Vendor	0.5868	14.1306	4.3909	0.0280	0.6914	0.1198	0.8111	0.1991	0.1146	0.3136		2,972.5750	2,972.5750	0.2250		2,978.1988
Worker	1.9154	1.4714	15.7869	0.0338	3.0962	0.0288	3.1250	0.8211	0.0266	0.8477		3,362.5386	3,362.5386	0.1405		3,366.0515
Total	**2.5022**	**15.6020**	**20.1777**	**0.0618**	**3.7876**	**0.1486**	**3.9361**	**1.0202**	**0.1411**	**1.1613**		**6,335.1136**	**6,335.1136**	**0.3655**		**6,344.2503**

3.5 Building Construction - 2018

Unmitigated Construction On-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Off-Road	2.6795	23.3900	17.5804	0.0269		1.4999	1.4999		1.4099	1.4099		2,620.9351	2,620.9351	0.6421		2,636.9883
Total	**2.6795**	**23.3900**	**17.5804**	**0.0269**		**1.4999**	**1.4999**		**1.4099**	**1.4099**		**2,620.9351**	**2,620.9351**	**0.6421**		**2,636.9883**

Unmitigated Construction Off-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					

Hauling	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000		0.0000	0.0000	0.0000		0.0000
Vendor	0.5178	13.2662	3.9781	0.0278	0.6914	0.0948	0.7862	0.1991	0.0907	0.2897		2,960.8185	2,960.8185	0.2136		2,966.1592
Worker	1.6938	1.2789	13.7744	0.0329	3.0962	0.0276	3.1238	0.8211	0.0255	0.8466		3,270.1954	3,270.1954	0.1231		3,273.2722
Total	**2.2116**	**14.5452**	**17.7524**	**0.0607**	**3.7876**	**0.1224**	**3.9100**	**1.0202**	**0.1161**	**1.1363**		**6,231.0139**	**6,231.0139**	**0.3367**		**6,239.4314**

3.6 Paving - 2018

Unmitigated Construction On-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Off-Road	1.6437	17.5209	14.7964	0.0228		0.9561	0.9561		0.8797	0.8797		2,294.0887	2,294.0887	0.7142		2,311.9432
Paving	0.0000					0.0000	0.0000		0.0000	0.0000			0.0000			0.0000
Total	**1.6437**	**17.5209**	**14.7964**	**0.0228**		**0.9561**	**0.9561**		**0.8797**	**0.8797**		**2,294.0887**	**2,294.0887**	**0.7142**		**2,311.9432**

Unmitigated Construction Off-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Hauling	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000		0.0000	0.0000	0.0000		0.0000
Vendor	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000		0.0000	0.0000	0.0000		0.0000
Worker	0.0917	0.0693	0.7459	1.7800e-003	0.1677	1.4900e-003	0.1692	0.0445	1.3800e-003	0.0458		177.0864	177.0864	6.6600e-003		177.2530
Total	**0.0917**	**0.0693**	**0.7459**	**1.7800e-003**	**0.1677**	**1.4900e-003**	**0.1692**	**0.0445**	**1.3800e-003**	**0.0458**		**177.0864**	**177.0864**	**6.6600e-003**		**177.2530**

3.7 Architectural Coating - 2018

Unmitigated Construction On-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Archit. Coating	0.0000					0.0000	0.0000		0.0000	0.0000			0.0000			0.0000
Off-Road	0.2986	2.0058	1.8542	2.9700e-003		0.1506	0.1506		0.1506	0.1506		281.4485	281.4485	0.0267		282.1171
Total	**0.2986**	**2.0058**	**1.8542**	**2.9700e-003**		**0.1506**	**0.1506**		**0.1506**	**0.1506**		**281.4485**	**281.4485**	**0.0267**		**282.1171**

Unmitigated Construction Off-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Hauling	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000		0.0000	0.0000	0.0000		0.0000
Vendor	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000		0.0000	0.0000	0.0000		0.0000
Worker	0.3363	0.2539	2.7350	6.5300e-003	0.6148	5.4800e-003	0.6203	0.1630	5.0500e-003	0.1681		649.3168	649.3168	0.0244		649.9277
Total	**0.3363**	**0.2539**	**2.7350**	**6.5300e-003**	**0.6148**	**5.4800e-003**	**0.6203**	**0.1630**	**5.0500e-003**	**0.1681**		**649.3168**	**649.3168**	**0.0244**		**649.9277**

CSULA EIR - Student Housing Project + Dining Facility

Los Angeles-South Coast County, Annual

1.0 Project Characteristics

1.1 Land Usage

Land Uses	Size	Metric	Lot Acreage	Floor Surface Area	Population
High Turnover (Sit Down Restaurant)	15.00	1000sqft	0.34	15,000.00	0
Apartments Mid Rise	1,500.00	Dwelling Unit	39.47	440,000.00	1500

1.2 Other Project Characteristics

Urbanization	Urban	**Wind Speed (m/s)**	2.2	**Precipitation Freq (Days)**	33
Climate Zone	12			**Operational Year**	2021
Utility Company	Los Angeles Department of Water & Power				
CO2 Intensity (lb/MWhr)	1227.89	**CH4 Intensity (lb/MWhr)**	0.029	**N2O Intensity (lb/MWhr)**	0.006

1.3 User Entered Comments & Non-Default Data

Project Characteristics -

Land Use - Apartment Mid-Rise = 3 to 10 levels, changed default sf (1.5M) to 440K (per IS), changed default pop. (4300) to 1500 (per IS)

Woodstoves - There will be no fireplaces or woodstoves in the student housing or dining facility

Table Name	Column Name	Default Value	New Value
tblArchitecturalCoating	EF_Parking	100.00	0.00
tblFireplaces	FireplaceDayYear	25.00	0.00
tblFireplaces	FireplaceHourDay	3.00	0.00
tblFireplaces	FireplaceWoodMass	1,019.20	0.00
tblFireplaces	NumberGas	1,275.00	0.00
tblFireplaces	NumberNoFireplace	150.00	0.00
tblFireplaces	NumberWood	75.00	0.00

tblLandUse	BuildingSpaceSquareFeet	1,500,000.00	440,000.00
tblLandUse	LandUseSquareFeet	1,500,000.00	440,000.00
tblLandUse	Population	4,290.00	1,500.00
tblProjectCharacteristics	OperationalYear	2018	2021
tblWoodstoves	NumberCatalytic	75.00	0.00
tblWoodstoves	NumberNoncatalytic	75.00	0.00
tblWoodstoves	WoodstoveDayYear	25.00	0.00
tblWoodstoves	WoodstoveWoodMass	999.60	0.00

2.0 Emissions Summary

2.1 Overall Construction

Unmitigated Construction

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Year	tons/yr										MT/yr					
2018	0.8615	6.5141	6.4521	0.0147	1.2967	0.2788	1.5754	0.4711	0.2589	0.7300	0.0000	1,338.5542	1,338.5542	0.1765	0.0000	1,342.9677
2019	1.1080	5.8550	9.3612	0.0255	1.6870	0.1978	1.8848	0.4512	0.1860	0.6371	0.0000	2,331.5854	2,331.5854	0.1616	0.0000	2,335.6248
2020	1.0119	5.3568	8.6897	0.0251	1.6935	0.1704	1.8638	0.4529	0.1601	0.6130	0.0000	2,286.9081	2,286.9081	0.1535	0.0000	2,290.7461
2021	1.9071	2.4808	4.1355	0.0118	0.7874	0.0823	0.8696	0.2104	0.0770	0.2875	0.0000	1,072.7807	1,072.7807	0.0824	0.0000	1,074.8402
Maximum	**1.9071**	**6.5141**	**9.3612**	**0.0255**	**1.6935**	**0.2788**	**1.8848**	**0.4711**	**0.2589**	**0.7300**	**0.0000**	**2,331.5854**	**2,331.5854**	**0.1765**	**0.0000**	**2,335.6248**

2.2 Overall Operational

Unmitigated Operational

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	tons/yr										MT/yr					
Area	2.2585	0.1790	15.5028	8.2000e-004		0.0855	0.0855		0.0855	0.0855	0.0000	25.2687	25.2687	0.0245	0.0000	25.8809
Energy	0.1243	1.0724	0.5268	6.7800e-003		0.0859	0.0859		0.0859	0.0859	0.0000	5,215.8881	5,215.8881	0.1177	0.0420	5,231.3557
Mobile	3.7462	19.1038	50.1253	0.1710	13.6715	0.1466	13.8181	3.6648	0.1369	3.8017	0.0000	15,777.5047	15,777.5047	0.8518	0.0000	15,798.7994
Waste						0.0000	0.0000		0.0000	0.0000	176.2977	0.0000	176.2977	10.4189	0.0000	436.7700
Water						0.0000	0.0000		0.0000	0.0000	32.4500	1,124.8341	1,157.2841	3.3595	0.0842	1,266.3612
Total	**6.1290**	**20.3552**	**66.1549**	**0.1786**	**13.6715**	**0.3180**	**13.9894**	**3.6648**	**0.3082**	**3.9731**	**208.7477**	**22,143.4956**	**22,352.2432**	**14.7724**	**0.1262**	**22,759.1672**

Mitigated Operational

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	tons/yr										MT/yr					
Area	2.2585	0.1790	15.5028	8.2000e-004		0.0855	0.0855		0.0855	0.0855	0.0000	25.2687	25.2687	0.0245	0.0000	25.8809
Energy	0.1243	1.0724	0.5268	6.7800e-003		0.0859	0.0859		0.0859	0.0859	0.0000	5,215.8881	5,215.8881	0.1177	0.0420	5,231.3557
Mobile	3.7462	19.1038	50.1253	0.1710	13.6715	0.1466	13.8181	3.6648	0.1369	3.8017	0.0000	15,777.5047	15,777.5047	0.8518	0.0000	15,798.7994
Waste						0.0000	0.0000		0.0000	0.0000	176.2977	0.0000	176.2977	10.4189	0.0000	436.7700
Water						0.0000	0.0000		0.0000	0.0000	32.4500	1,124.8341	1,157.2841	3.3595	0.0842	1,266.3612
Total	**6.1290**	**20.3552**	**66.1549**	**0.1786**	**13.6715**	**0.3180**	**13.9894**	**3.6648**	**0.3082**	**3.9731**	**208.7477**	**22,143.4956**	**22,352.2432**	**14.7724**	**0.1262**	**22,759.1672**

	ROG	**NOx**	**CO**	**SO2**	**Fugitive PM10**	**Exhaust PM10**	**PM10 Total**	**Fugitive PM2.5**	**Exhaust PM2.5**	**PM2.5 Total**	**Bio- CO2**	**NBio-CO2**	**Total CO2**	**CH4**	**N20**	**CO2e**

Percent Reduction	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00

3.0 Construction Detail

Construction Phase

Phase Number	Phase Name	Phase Type	Start Date	End Date	Num Days Week	Num Days	Phase Description
1	Demolition	Demolition	1/1/2018	3/9/2018	5	50	
2	Site Preparation	Site Preparation	3/10/2018	4/20/2018	5	30	
3	Grading	Grading	4/21/2018	8/3/2018	5	75	
4	Building Construction	Building Construction	8/4/2018	6/4/2021	5	740	
5	Paving	Paving	6/5/2021	8/20/2021	5	55	
6	Architectural Coating	Architectural Coating	8/21/2021	11/5/2021	5	55	

Acres of Grading (Site Preparation Phase): 0

Acres of Grading (Grading Phase): 187.5

Acres of Paving: 0

Residential Indoor: 891,000; Residential Outdoor: 297,000; Non-Residential Indoor: 22,500; Non-Residential Outdoor: 7,500; Striped

OffRoad Equipment

Phase Name	Offroad Equipment Type	Amount	Usage Hours	Horse Power	Load Factor
Demolition	Concrete/Industrial Saws	1	8.00	81	0.73
Demolition	Excavators	3	8.00	158	0.38
Demolition	Rubber Tired Dozers	2	8.00	247	0.40
Site Preparation	Rubber Tired Dozers	3	8.00	247	0.40
Site Preparation	Tractors/Loaders/Backhoes	4	8.00	97	0.37
Grading	Excavators	2	8.00	158	0.38
Grading	Graders	1	8.00	187	0.41
Grading	Rubber Tired Dozers	1	8.00	247	0.40
Grading	Scrapers	2	8.00	367	0.48
Grading	Tractors/Loaders/Backhoes	2	8.00	97	0.37

Building Construction	Cranes	1	7.00	231	0.29
Building Construction	Forklifts	3	8.00	89	0.20
Building Construction	Generator Sets	1	8.00	84	0.74
Building Construction	Tractors/Loaders/Backhoes	3	7.00	97	0.37
Building Construction	Welders	1	8.00	46	0.45
Paving	Pavers	2	8.00	130	0.42
Paving	Paving Equipment	2	8.00	132	0.36
Paving	Rollers	2	8.00	80	0.38
Architectural Coating	Air Compressors	1	6.00	78	0.48

Trips and VMT

Phase Name	Offroad Equipment Count	Worker Trip Number	Vendor Trip Number	Hauling Trip Number	Worker Trip Length	Vendor Trip Length	Hauling Trip Length	Worker Vehicle Class	Vendor Vehicle Class	Hauling Vehicle Class
Demolition	6	15.00	0.00	0.00	14.70	6.90	20.00	LD_Mix	HDT_Mix	HHDT
Site Preparation	7	18.00	0.00	0.00	14.70	6.90	20.00	LD_Mix	HDT_Mix	HHDT
Grading	8	20.00	0.00	0.00	14.70	6.90	20.00	LD_Mix	HDT_Mix	HHDT
Building Construction	9	1,086.00	163.00	0.00	14.70	6.90	20.00	LD_Mix	HDT_Mix	HHDT
Paving	6	15.00	0.00	0.00	14.70	6.90	20.00	LD_Mix	HDT_Mix	HHDT
Architectural Coating	1	217.00	0.00	0.00	14.70	6.90	20.00	LD_Mix	HDT_Mix	HHDT

3.1 Mitigation Measures Construction

3.2 Demolition - 2018

Unmitigated Construction On-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	tons/yr										MT/yr					
Off-Road	0.0930	0.9581	0.5576	9.7000e-004		0.0485	0.0485		0.0451	0.0451	0.0000	87.8102	87.8102	0.0242	0.0000	88.4150
Total	**0.0930**	**0.9581**	**0.5576**	**9.7000e-004**		**0.0485**	**0.0485**		**0.0451**	**0.0451**	**0.0000**	**87.8102**	**87.8102**	**0.0242**	**0.0000**	**88.4150**

Unmitigated Construction Off-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	tons/yr										MT/yr					
Hauling	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Vendor	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Worker	2.0800e-003	1.7800e-003	0.0191	5.0000e-005	4.1100e-003	4.0000e-005	4.1500e-003	1.0900e-003	3.0000e-005	1.1300e-003	0.0000	4.0830	4.0830	1.5000e-004	0.0000	4.0868
Total	**2.0800e-003**	**1.7800e-003**	**0.0191**	**5.0000e-005**	**4.1100e-003**	**4.0000e-005**	**4.1500e-003**	**1.0900e-003**	**3.0000e-005**	**1.1300e-003**	**0.0000**	**4.0830**	**4.0830**	**1.5000e-004**	**0.0000**	**4.0868**

3.3 Site Preparation - 2018

Unmitigated Construction On-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	tons/yr										MT/yr					
Fugitive Dust					0.2710	0.0000	0.2710	0.1490	0.0000	0.1490	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Off-Road	0.0684	0.7230	0.3371	5.7000e-004		0.0387	0.0387		0.0356	0.0356	0.0000	52.1399	52.1399	0.0162	0.0000	52.5457
Total	**0.0684**	**0.7230**	**0.3371**	**5.7000e-004**	**0.2710**	**0.0387**	**0.3096**	**0.1490**	**0.0356**	**0.1845**	**0.0000**	**52.1399**	**52.1399**	**0.0162**	**0.0000**	**52.5457**

Unmitigated Construction Off-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	tons/yr										MT/yr					
Hauling	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000

Vendor	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Worker	1.5000e-003	1.2800e-003	0.0138	3.0000e-005	2.9600e-003	3.0000e-005	2.9900e-003	7.9000e-004	2.0000e-005	8.1000e-004	0.0000	2.9398	2.9398	1.1000e-004	0.0000	2.9425
Total	**1.5000e-003**	**1.2800e-003**	**0.0138**	**3.0000e-005**	**2.9600e-003**	**3.0000e-005**	**2.9900e-003**	**7.9000e-004**	**2.0000e-005**	**8.1000e-004**	**0.0000**	**2.9398**	**2.9398**	**1.1000e-004**	**0.0000**	**2.9425**

3.4 Grading - 2018

Unmitigated Construction On-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	tons/yr										MT/yr					
Fugitive Dust					0.3253	0.0000	0.3253	0.1349	0.0000	0.1349	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Off-Road	0.1909	2.2321	1.3159	2.3300e-003		0.0988	0.0988		0.0909	0.0909	0.0000	212.4319	212.4319	0.0661	0.0000	214.0852
Total	**0.1909**	**2.2321**	**1.3159**	**2.3300e-003**	**0.3253**	**0.0988**	**0.4240**	**0.1349**	**0.0909**	**0.2257**	**0.0000**	**212.4319**	**212.4319**	**0.0661**	**0.0000**	**214.0852**

Unmitigated Construction Off-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	tons/yr										MT/yr					
Hauling	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Vendor	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Worker	4.1600e-003	3.5600e-003	0.0382	9.0000e-005	8.2200e-003	7.0000e-005	8.2900e-003	2.1800e-003	7.0000e-005	2.2500e-003	0.0000	8.1660	8.1660	3.1000e-004	0.0000	8.1736
Total	**4.1600e-003**	**3.5600e-003**	**0.0382**	**9.0000e-005**	**8.2200e-003**	**7.0000e-005**	**8.2900e-003**	**2.1800e-003**	**7.0000e-005**	**2.2500e-003**	**0.0000**	**8.1660**	**8.1660**	**3.1000e-004**	**0.0000**	**8.1736**

3.5 Building Construction - 2018

Unmitigated Construction On-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	tons/yr										MT/yr					
Off-Road	0.1420	1.2397	0.9318	1.4300e-003		0.0795	0.0795		0.0747	0.0747	0.0000	126.0166	126.0166	0.0309	0.0000	126.7885
Total	**0.1420**	**1.2397**	**0.9318**	**1.4300e-003**		**0.0795**	**0.0795**		**0.0747**	**0.0747**	**0.0000**	**126.0166**	**126.0166**	**0.0309**	**0.0000**	**126.7885**

Unmitigated Construction Off-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	tons/yr										MT/yr					
Hauling	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Vendor	0.0405	1.0819	0.3042	2.2600e-003	0.0544	7.5100e-003	0.0619	0.0157	7.1900e-003	0.0229	0.0000	218.2785	218.2785	0.0150	0.0000	218.6528
Worker	0.3189	0.2728	2.9345	6.9400e-003	0.6307	5.7400e-003	0.6365	0.1675	5.2900e-003	0.1728	0.0000	626.6884	626.6884	0.0236	0.0000	627.2775
Total	**0.3594**	**1.3547**	**3.2387**	**9.2000e-003**	**0.6851**	**0.0133**	**0.6984**	**0.1832**	**0.0125**	**0.1957**	**0.0000**	**844.9670**	**844.9670**	**0.0385**	**0.0000**	**845.9304**

3.5 Building Construction - 2019

Unmitigated Construction On-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	tons/yr										MT/yr					
Off-Road	0.3081	2.7508	2.2399	3.5100e-003		0.1683	0.1683		0.1583	0.1583	0.0000	306.8110	306.8110	0.0747	0.0000	308.6795
Total	**0.3081**	**2.7508**	**2.2399**	**3.5100e-003**		**0.1683**	**0.1683**		**0.1583**	**0.1583**	**0.0000**	**306.8110**	**306.8110**	**0.0747**	**0.0000**	**308.6795**

Unmitigated Construction Off-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	tons/yr										MT/yr					
Hauling	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Vendor	0.0900	2.5126	0.6872	5.5000e-003	0.1340	0.0158	0.1498	0.0387	0.0151	0.0538	0.0000	531.9247	531.9247	0.0355	0.0000	532.8124
Worker	0.7099	0.5917	6.4341	0.0165	1.5530	0.0137	1.5667	0.4125	0.0126	0.4251	0.0000	1,492.8497	1,492.8497	0.0513	0.0000	1,494.1329
Total	**0.7999**	**3.1042**	**7.1213**	**0.0220**	**1.6870**	**0.0295**	**1.7165**	**0.4512**	**0.0277**	**0.4789**	**0.0000**	**2,024.7744**	**2,024.7744**	**0.0868**	**0.0000**	**2,026.9453**

3.5 Building Construction - 2020

Unmitigated Construction On-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	tons/yr										MT/yr					
Off-Road	0.2777	2.5134	2.2072	3.5300e-003		0.1463	0.1463		0.1376	0.1376	0.0000	303.4091	303.4091	0.0740	0.0000	305.2596
Total	**0.2777**	**2.5134**	**2.2072**	**3.5300e-003**		**0.1463**	**0.1463**		**0.1376**	**0.1376**	**0.0000**	**303.4091**	**303.4091**	**0.0740**	**0.0000**	**305.2596**

Unmitigated Construction Off-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	tons/yr										MT/yr					
Hauling	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Vendor	0.0774	2.3139	0.6264	5.4800e-003	0.1345	0.0108	0.1453	0.0388	0.0103	0.0491	0.0000	530.4645	530.4645	0.0337	0.0000	531.3072
Worker	0.6567	0.5296	5.8561	0.0161	1.5590	0.0133	1.5722	0.4141	0.0123	0.4263	0.0000	1,453.0346	1,453.0346	0.0458	0.0000	1,454.1793

Total	**0.7342**	**2.8435**	**6.4825**	**0.0216**	**1.6935**	**0.0241**	**1.7175**	**0.4529**	**0.0225**	**0.4754**	**0.0000**	**1,983.4990**	**1,983.4990**	**0.0795**	**0.0000**	**1,985.4865**

3.5 Building Construction - 2021

Unmitigated Construction On-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	tons/yr										MT/yr					
Off-Road	0.1055	0.9675	0.9199	1.4900e-003		0.0532	0.0532		0.0500	0.0500	0.0000	128.5587	128.5587	0.0310	0.0000	129.3341
Total	**0.1055**	**0.9675**	**0.9199**	**1.4900e-003**		**0.0532**	**0.0532**		**0.0500**	**0.0500**	**0.0000**	**128.5587**	**128.5587**	**0.0310**	**0.0000**	**129.3341**

Unmitigated Construction Off-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	tons/yr										MT/yr					
Hauling	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Vendor	0.0281	0.8928	0.2421	2.3000e-003	0.0570	1.8200e-003	0.0588	0.0165	1.7400e-003	0.0182	0.0000	222.9931	222.9931	0.0137	0.0000	223.3351
Worker	0.2593	0.2019	2.2793	6.6000e-003	0.6605	5.4400e-003	0.6659	0.1754	5.0100e-003	0.1804	0.0000	596.0500	596.0500	0.0175	0.0000	596.4885
Total	**0.2874**	**1.0947**	**2.5213**	**8.9000e-003**	**0.7175**	**7.2600e-003**	**0.7247**	**0.1919**	**6.7500e-003**	**0.1986**	**0.0000**	**819.0431**	**819.0431**	**0.0312**	**0.0000**	**819.8235**

3.6 Paving - 2021

Unmitigated Construction On-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	tons/yr										MT/yr					

Off-Road	0.0345	0.3553	0.4030	6.3000e-004		0.0186	0.0186		0.0172	0.0172	0.0000	55.0646	55.0646	0.0178	0.0000	55.5098
Paving	0.0000					0.0000	0.0000		0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Total	**0.0345**	**0.3553**	**0.4030**	**6.3000e-004**		**0.0186**	**0.0186**		**0.0172**	**0.0172**	**0.0000**	**55.0646**	**55.0646**	**0.0178**	**0.0000**	**55.5098**

Unmitigated Construction Off-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	tons/yr										MT/yr					
Hauling	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Vendor	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Worker	1.7700e-003	1.3800e-003	0.0156	5.0000e-005	4.5200e-003	4.0000e-005	4.5600e-003	1.2000e-003	3.0000e-005	1.2300e-003	0.0000	4.0793	4.0793	1.2000e-004	0.0000	4.0823
Total	**1.7700e-003**	**1.3800e-003**	**0.0156**	**5.0000e-005**	**4.5200e-003**	**4.0000e-005**	**4.5600e-003**	**1.2000e-003**	**3.0000e-005**	**1.2300e-003**	**0.0000**	**4.0793**	**4.0793**	**1.2000e-004**	**0.0000**	**4.0823**

3.7 Architectural Coating - 2021

Unmitigated Construction On-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	tons/yr										MT/yr					
Archit. Coating	1.4461					0.0000	0.0000		0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Off-Road	6.0200e-003	0.0420	0.0500	8.0000e-005		2.5900e-003	2.5900e-003		2.5900e-003	2.5900e-003	0.0000	7.0215	7.0215	4.8000e-004	0.0000	7.0335
Total	**1.4521**	**0.0420**	**0.0500**	**8.0000e-005**		**2.5900e-003**	**2.5900e-003**		**2.5900e-003**	**2.5900e-003**	**0.0000**	**7.0215**	**7.0215**	**4.8000e-004**	**0.0000**	**7.0335**

Unmitigated Construction Off-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	tons/yr										MT/yr					
Hauling	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Vendor	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Worker	0.0257	0.0200	0.2257	6.5000e-004	0.0654	5.4000e-004	0.0659	0.0174	5.0000e-004	0.0179	0.0000	59.0136	59.0136	1.7400e-003	0.0000	59.0570
Total	**0.0257**	**0.0200**	**0.2257**	**6.5000e-004**	**0.0654**	**5.4000e-004**	**0.0659**	**0.0174**	**5.0000e-004**	**0.0179**	**0.0000**	**59.0136**	**59.0136**	**1.7400e-003**	**0.0000**	**59.0570**

CSULA EIR - Student Housing Project + Dining Facility

Los Angeles-South Coast County, Summer

1.0 Project Characteristics

1.1 Land Usage

Land Uses	Size	Metric	Lot Acreage	Floor Surface Area	Population
High Turnover (Sit Down Restaurant)	15.00	1000sqft	0.34	15,000.00	0
Apartments Mid Rise	1,500.00	Dwelling Unit	39.47	440,000.00	1500

1.2 Other Project Characteristics

Urbanization Urban **Wind Speed (m/s)** 2.2 **Precipitation Freq (Days)** 33

Climate Zone 12 **Operational Year** 2021

Utility Company Los Angeles Department of Water & Power

CO2 Intensity (lb/MWhr) 1227.89 **CH4 Intensity (lb/MWhr)** 0.029 **N2O Intensity (lb/MWhr)** 0.006

1.3 User Entered Comments & Non-Default Data

Project Characteristics -

Land Use - Apartment Mid-Rise = 3 to 10 levels, changed default sf (1.5M) to 440K (per IS), changed default pop. (4300) to 1500 (per IS)

Woodstoves - There will be no fireplaces or woodstoves in the student housing or dining facility

Table Name	Column Name	Default Value	New Value
tblArchitecturalCoating	EF_Parking	100.00	0.00
tblFireplaces	FireplaceDayYear	25.00	0.00
tblFireplaces	FireplaceHourDay	3.00	0.00
tblFireplaces	FireplaceWoodMass	1,019.20	0.00
tblFireplaces	NumberGas	1,275.00	0.00
tblFireplaces	NumberNoFireplace	150.00	0.00
tblFireplaces	NumberWood	75.00	0.00

tblLandUse	BuildingSpaceSquareFeet	1,500,000.00	440,000.00
tblLandUse	LandUseSquareFeet	1,500,000.00	440,000.00
tblLandUse	Population	4,290.00	1,500.00
tblProjectCharacteristics	OperationalYear	2018	2021
tblWoodstoves	NumberCatalytic	75.00	0.00
tblWoodstoves	NumberNoncatalytic	75.00	0.00
tblWoodstoves	WoodstoveDayYear	25.00	0.00
tblWoodstoves	WoodstoveWoodMass	999.60	0.00

2.0 Emissions Summary

2.1 Overall Construction (Maximum Daily Emission)

Unmitigated Construction

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Year	lb/day										lb/day					
2018	9.4293	59.6052	81.6945	0.2069	18.2675	2.6357	20.8462	9.9840	2.4249	12.3565	0.0000	20,827.3812	20,827.3812	1.9534	0.0000	20,863.7589
2019	8.4637	43.9300	74.5322	0.2019	13.1824	1.5148	14.6972	3.5197	1.4242	4.9440	0.0000	20,308.9267	20,308.9267	1.3750	0.0000	20,343.3025
2020	7.6974	40.0802	68.9413	0.1975	13.1824	1.3001	14.4826	3.5198	1.2219	4.7416	0.0000	19,841.1514	19,841.1514	1.3011	0.0000	19,873.6789
2021	53.7353	36.4575	64.4537	0.1930	13.1825	1.0891	14.2715	3.5198	1.0226	4.5423	0.0000	19,400.9588	19,400.9588	1.2444	0.0000	19,432.0681
Maximum	**53.7353**	**59.6052**	**81.6945**	**0.2069**	**18.2675**	**2.6357**	**20.8462**	**9.9840**	**2.4249**	**12.3565**	**0.0000**	**20,827.3812**	**20,827.3812**	**1.9534**	**0.0000**	**20,863.7589**

2.2 Overall Operational

Unmitigated Operational

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Area	13.5592	1.4316	124.0223	6.5300e-003		0.6836	0.6836		0.6836	0.6836	0.0000	222.8318	222.8318	0.2160	0.0000	228.2304
Energy	0.6811	5.8764	2.8863	0.0372		0.4706	0.4706		0.4706	0.4706		7,430.4948	7,430.4948	0.1424	0.1362	7,474.6505
Mobile	22.6957	104.9333	296.2196	1.0101	79.3656	0.8349	80.2006	21.2404	0.7795	22.0198		102,708.2077	102,708.2077	5.3942		102,843.0618
Total	**36.9360**	**112.2414**	**423.1283**	**1.0538**	**79.3656**	**1.9892**	**81.3548**	**21.2404**	**1.9337**	**23.1741**	**0.0000**	**110,361.5342**	**110,361.5342**	**5.7525**	**0.1362**	**110,545.9427**

3.0 Construction Detail

Construction Phase

Phase Number	Phase Name	Phase Type	Start Date	End Date	Num Days Week	Num Days	Phase Description
1	Demolition	Demolition	1/1/2018	3/9/2018	5	50	
2	Site Preparation	Site Preparation	3/10/2018	4/20/2018	5	30	
3	Grading	Grading	4/21/2018	8/3/2018	5	75	
4	Building Construction	Building Construction	8/4/2018	6/4/2021	5	740	
5	Paving	Paving	6/5/2021	8/20/2021	5	55	
6	Architectural Coating	Architectural Coating	8/21/2021	11/5/2021	5	55	

Acres of Grading (Site Preparation Phase): 0

Acres of Grading (Grading Phase): 187.5

Acres of Paving: 0

Residential Indoor: 891,000; Residential Outdoor: 297,000; Non-Residential Indoor: 22,500; Non-Residential Outdoor: 7,500; Striped Parking Area:

OffRoad Equipment

Phase Name	Offroad Equipment Type	Amount	Usage Hours	Horse Power	Load Factor
Demolition	Concrete/Industrial Saws	1	8.00	81	0.73
Demolition	Excavators	3	8.00	158	0.38

Demolition	Rubber Tired Dozers	2	8.00	247	0.40
Site Preparation	Rubber Tired Dozers	3	8.00	247	0.40
Site Preparation	Tractors/Loaders/Backhoes	4	8.00	97	0.37
Grading	Excavators	2	8.00	158	0.38
Grading	Graders	1	8.00	187	0.41
Grading	Rubber Tired Dozers	1	8.00	247	0.40
Grading	Scrapers	2	8.00	367	0.48
Grading	Tractors/Loaders/Backhoes	2	8.00	97	0.37
Building Construction	Cranes	1	7.00	231	0.29
Building Construction	Forklifts	3	8.00	89	0.20
Building Construction	Generator Sets	1	8.00	84	0.74
Building Construction	Tractors/Loaders/Backhoes	3	7.00	97	0.37
Building Construction	Welders	1	8.00	46	0.45
Paving	Pavers	2	8.00	130	0.42
Paving	Paving Equipment	2	8.00	132	0.36
Paving	Rollers	2	8.00	80	0.38
Architectural Coating	Air Compressors	1	6.00	78	0.48

Trips and VMT

Phase Name	Offroad Equipment Count	Worker Trip Number	Vendor Trip Number	Hauling Trip Number	Worker Trip Length	Vendor Trip Length	Hauling Trip Length	Worker Vehicle Class	Vendor Vehicle Class	Hauling Vehicle Class
Demolition	6	15.00	0.00	0.00	14.70	6.90	20.00	LD_Mix	HDT_Mix	HHDT
Site Preparation	7	18.00	0.00	0.00	14.70	6.90	20.00	LD_Mix	HDT_Mix	HHDT
Grading	8	20.00	0.00	0.00	14.70	6.90	20.00	LD_Mix	HDT_Mix	HHDT
Building Construction	9	1,086.00	163.00	0.00	14.70	6.90	20.00	LD_Mix	HDT_Mix	HHDT
Paving	6	15.00	0.00	0.00	14.70	6.90	20.00	LD_Mix	HDT_Mix	HHDT
Architectural Coating	1	217.00	0.00	0.00	14.70	6.90	20.00	LD_Mix	HDT_Mix	HHDT

3.1 Mitigation Measures Construction

3.2 Demolition - 2018

Unmitigated Construction On-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Off-Road	3.7190	38.3225	22.3040	0.0388		1.9386	1.9386		1.8048	1.8048		3,871.7665	3,871.7665	1.0667		3,898.4344
Total	**3.7190**	**38.3225**	**22.3040**	**0.0388**		**1.9386**	**1.9386**		**1.8048**	**1.8048**		**3,871.7665**	**3,871.7665**	**1.0667**		**3,898.4344**

Unmitigated Construction Off-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Hauling	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000		0.0000	0.0000	0.0000		0.0000
Vendor	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000		0.0000	0.0000	0.0000		0.0000
Worker	0.0829	0.0625	0.8101	1.8900e-003	0.1677	1.4900e-003	0.1692	0.0445	1.3800e-003	0.0458		188.0535	188.0535	7.0500e-003		188.2298
Total	**0.0829**	**0.0625**	**0.8101**	**1.8900e-003**	**0.1677**	**1.4900e-003**	**0.1692**	**0.0445**	**1.3800e-003**	**0.0458**		**188.0535**	**188.0535**	**7.0500e-003**		**188.2298**

3.3 Site Preparation - 2018

Unmitigated Construction On-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Fugitive Dust					18.0663	0.0000	18.0663	9.9307	0.0000	9.9307			0.0000			0.0000

Off-Road	4.5627	48.1988	22.4763	0.0380		2.5769	2.5769		2.3708	2.3708		3,831.6239	3,831.6239	1.1928		3,861.4448
Total	**4.5627**	**48.1988**	**22.4763**	**0.0380**	**18.0663**	**2.5769**	**20.6432**	**9.9307**	**2.3708**	**12.3014**		**3,831.6239**	**3,831.6239**	**1.1928**		**3,861.4448**

Unmitigated Construction Off-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Hauling	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000		0.0000	0.0000	0.0000		0.0000
Vendor	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000		0.0000	0.0000	0.0000		0.0000
Worker	0.0995	0.0751	0.9721	2.2700e-003	0.2012	1.7900e-003	0.2030	0.0534	1.6500e-003	0.0550		225.6642	225.6642	8.4600e-003		225.8758
Total	**0.0995**	**0.0751**	**0.9721**	**2.2700e-003**	**0.2012**	**1.7900e-003**	**0.2030**	**0.0534**	**1.6500e-003**	**0.0550**		**225.6642**	**225.6642**	**8.4600e-003**		**225.8758**

3.4 Grading - 2018

Unmitigated Construction On-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Fugitive Dust					8.6733	0.0000	8.6733	3.5965	0.0000	3.5965			0.0000			0.0000
Off-Road	5.0901	59.5218	35.0894	0.0620		2.6337	2.6337		2.4230	2.4230		6,244.4284	6,244.4284	1.9440		6,293.0278
Total	**5.0901**	**59.5218**	**35.0894**	**0.0620**	**8.6733**	**2.6337**	**11.3071**	**3.5965**	**2.4230**	**6.0195**		**6,244.4284**	**6,244.4284**	**1.9440**		**6,293.0278**

Unmitigated Construction Off-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e

Category	lb/day										lb/day					
Hauling	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000		0.0000	0.0000	0.0000		0.0000
Vendor	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000		0.0000	0.0000	0.0000		0.0000
Worker	0.1105	0.0834	1.0802	2.5200e-003	0.2236	1.9900e-003	0.2256	0.0593	1.8400e-003	0.0611		250.7380	250.7380	9.4000e-003		250.9731
Total	**0.1105**	**0.0834**	**1.0802**	**2.5200e-003**	**0.2236**	**1.9900e-003**	**0.2256**	**0.0593**	**1.8400e-003**	**0.0611**		**250.7380**	**250.7380**	**9.4000e-003**		**250.9731**

3.5 Building Construction - 2018

Unmitigated Construction On-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Off-Road	2.6795	23.3900	17.5804	0.0269		1.4999	1.4999		1.4099	1.4099		2,620.9351	2,620.9351	0.6421		2,636.9883
Total	**2.6795**	**23.3900**	**17.5804**	**0.0269**		**1.4999**	**1.4999**		**1.4099**	**1.4099**		**2,620.9351**	**2,620.9351**	**0.6421**		**2,636.9883**

Unmitigated Construction Off-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Hauling	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000		0.0000	0.0000	0.0000		0.0000
Vendor	0.7499	19.9773	5.4621	0.0431	1.0435	0.1408	1.1843	0.3004	0.1347	0.4351		4,591.3745	4,591.3745	0.3023		4,598.9326
Worker	5.9999	4.5278	58.6521	0.1369	12.1389	0.1082	12.2471	3.2193	0.0998	3.3191		13,615.0716	13,615.0716	0.5107		13,627.8380
Total	**6.7498**	**24.5051**	**64.1141**	**0.1800**	**13.1824**	**0.2490**	**13.4314**	**3.5197**	**0.2345**	**3.7542**		**18,206.4461**	**18,206.4461**	**0.8130**		**18,226.7706**

3.5 Building Construction - 2019

Unmitigated Construction On-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Off-Road	2.3612	21.0788	17.1638	0.0269		1.2899	1.2899		1.2127	1.2127		2,591.5802	2,591.5802	0.6313		2,607.3635
Total	**2.3612**	**21.0788**	**17.1638**	**0.0269**		**1.2899**	**1.2899**		**1.2127**	**1.2127**		**2,591.5802**	**2,591.5802**	**0.6313**		**2,607.3635**

Unmitigated Construction Off-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Hauling	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000		0.0000	0.0000	0.0000		0.0000
Vendor	0.6773	18.8639	5.0054	0.0426	1.0435	0.1203	1.1638	0.3004	0.1151	0.4155		4,544.6783	4,544.6783	0.2912		4,551.9592
Worker	5.4252	3.9873	52.3630	0.1323	12.1389	0.1047	12.2436	3.2193	0.0965	3.3158		13,172.6683	13,172.6683	0.4525		13,183.9799
Total	**6.1025**	**22.8512**	**57.3684**	**0.1749**	**13.1824**	**0.2249**	**13.4074**	**3.5197**	**0.2115**	**3.7312**		**17,717.3466**	**17,717.3466**	**0.7437**		**17,735.9391**

3.5 Building Construction - 2020

Unmitigated Construction On-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					

Off-Road	2.1198	19.1860	16.8485	0.0269		1.1171	1.1171		1.0503	1.0503		2,553.0631	2,553.0631	0.6229		2,568.6345
Total	**2.1198**	**19.1860**	**16.8485**	**0.0269**		**1.1171**	**1.1171**		**1.0503**	**1.0503**		**2,553.0631**	**2,553.0631**	**0.6229**		**2,568.6345**

Unmitigated Construction Off-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Hauling	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000		0.0000	0.0000	0.0000		0.0000
Vendor	0.5797	17.3387	4.5429	0.0423	1.0435	0.0816	1.1251	0.3005	0.0781	0.3785		4,515.5025	4,515.5025	0.2756		4,522.3913
Worker	4.9978	3.5555	47.5499	0.1283	12.1389	0.1015	12.2404	3.2193	0.0935	3.3128		12,772.5858	12,772.5858	0.4027		12,782.6531
Total	**5.5775**	**20.8942**	**52.0928**	**0.1705**	**13.1824**	**0.1831**	**13.3655**	**3.5198**	**0.1716**	**3.6913**		**17,288.0883**	**17,288.0883**	**0.6782**		**17,305.0444**

3.5 Building Construction - 2021

Unmitigated Construction On-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Off-Road	1.9009	17.4321	16.5752	0.0269		0.9586	0.9586		0.9013	0.9013		2,553.3639	2,553.3639	0.6160		2,568.7643
Total	**1.9009**	**17.4321**	**16.5752**	**0.0269**		**0.9586**	**0.9586**		**0.9013**	**0.9013**		**2,553.3639**	**2,553.3639**	**0.6160**		**2,568.7643**

Unmitigated Construction Off-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Hauling	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000		0.0000	0.0000	0.0000		0.0000
Vendor	0.4955	15.8256	4.1372	0.0419	1.0436	0.0324	1.0759	0.3005	0.0310	0.3314		4,480.5543	4,480.5543	0.2640		4,487.1533
Worker	4.6552	3.1998	43.7412	0.1242	12.1389	0.0981	12.2370	3.2193	0.0904	3.3097		12,367.0406	12,367.0406	0.3644		12,376.1505
Total	**5.1507**	**19.0254**	**47.8785**	**0.1661**	**13.1825**	**0.1305**	**13.3129**	**3.5198**	**0.1213**	**3.6411**		**16,847.5949**	**16,847.5949**	**0.6284**		**16,863.3038**

3.6 Paving - 2021

Unmitigated Construction On-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Off-Road	1.2556	12.9191	14.6532	0.0228		0.6777	0.6777		0.6235	0.6235		2,207.2109	2,207.2109	0.7139		2,225.0573
Paving	0.0000					0.0000	0.0000		0.0000	0.0000			0.0000			0.0000
Total	**1.2556**	**12.9191**	**14.6532**	**0.0228**		**0.6777**	**0.6777**		**0.6235**	**0.6235**		**2,207.2109**	**2,207.2109**	**0.7139**		**2,225.0573**

Unmitigated Construction Off-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Hauling	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000		0.0000	0.0000	0.0000		0.0000
Vendor	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000		0.0000	0.0000	0.0000		0.0000
Worker	0.0643	0.0442	0.6042	1.7100e-003	0.1677	1.3500e-003	0.1690	0.0445	1.2500e-003	0.0457		170.8155	170.8155	5.0300e-003		170.9413

Total	**0.0643**	**0.0442**	**0.6042**	**1.7100e-003**	**0.1677**	**1.3500e-003**	**0.1690**	**0.0445**	**1.2500e-003**	**0.0457**		**170.8155**	**170.8155**	**5.0300e-003**		**170.9413**

3.7 Architectural Coating - 2021

Unmitigated Construction On-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Archit. Coating	52.5862					0.0000	0.0000		0.0000	0.0000			0.0000			0.0000
Off-Road	0.2189	1.5268	1.8176	2.9700e-003		0.0941	0.0941		0.0941	0.0941		281.4481	281.4481	0.0193		281.9309
Total	**52.8051**	**1.5268**	**1.8176**	**2.9700e-003**		**0.0941**	**0.0941**		**0.0941**	**0.0941**		**281.4481**	**281.4481**	**0.0193**		**281.9309**

Unmitigated Construction Off-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Hauling	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000		0.0000	0.0000	0.0000		0.0000
Vendor	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000		0.0000	0.0000	0.0000		0.0000
Worker	0.9302	0.6394	8.7402	0.0248	2.4256	0.0196	2.4452	0.6433	0.0181	0.6613		2,471.1306	2,471.1306	0.0728		2,472.9509
Total	**0.9302**	**0.6394**	**8.7402**	**0.0248**	**2.4256**	**0.0196**	**2.4452**	**0.6433**	**0.0181**	**0.6613**		**2,471.1306**	**2,471.1306**	**0.0728**		**2,472.9509**

CSULA EIR - Student Housing Project + Dining Facility

Los Angeles-South Coast County, Winter

1.0 Project Characteristics

1.1 Land Usage

Land Uses	Size	Metric	Lot Acreage	Floor Surface Area	Population
High Turnover (Sit Down Restaurant)	15.00	1000sqft	0.34	15,000.00	0
Apartments Mid Rise	1,500.00	Dwelling Unit	39.47	440,000.00	1500

1.2 Other Project Characteristics

Urbanization	Urban	**Wind Speed (m/s)**	2.2	**Precipitation Freq (Days)**	33
Climate Zone	12			**Operational Year**	2021
Utility Company	Los Angeles Department of Water & Power				
CO2 Intensity (lb/MWhr)	1227.89	**CH4 Intensity (lb/MWhr)**	0.029	**N2O Intensity (lb/MWhr)**	0.006

1.3 User Entered Comments & Non-Default Data

Project Characteristics -

Land Use - Apartment Mid-Rise = 3 to 10 levels, changed default sf (1.5M) to 440K (per IS), changed default pop. (4300) to 1500 (per IS)

Woodstoves - There will be no fireplaces or woodstoves in the student housing or dining facility

Table Name	Column Name	Default Value	New Value
tblArchitecturalCoating	EF_Parking	100.00	0.00
tblFireplaces	FireplaceDayYear	25.00	0.00
tblFireplaces	FireplaceHourDay	3.00	0.00
tblFireplaces	FireplaceWoodMass	1,019.20	0.00
tblFireplaces	NumberGas	1,275.00	0.00
tblFireplaces	NumberNoFireplace	150.00	0.00
tblFireplaces	NumberWood	75.00	0.00

tblLandUse	BuildingSpaceSquareFeet	1,500,000.00	440,000.00
tblLandUse	LandUseSquareFeet	1,500,000.00	440,000.00
tblLandUse	Population	4,290.00	1,500.00
tblProjectCharacteristics	OperationalYear	2018	2021
tblWoodstoves	NumberCatalytic	75.00	0.00
tblWoodstoves	NumberNoncatalytic	75.00	0.00
tblWoodstoves	WoodstoveDayYear	25.00	0.00
tblWoodstoves	WoodstoveWoodMass	999.60	0.00

2.0 Emissions Summary

2.1 Overall Construction (Maximum Daily Emission)

Unmitigated Construction

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Year	lb/day										lb/day					
2018	10.1016	59.6141	77.5878	0.1977	18.2675	2.6357	20.8462	9.9840	2.4249	12.3565	0.0000	19,910.6328	19,910.6328	1.9529	0.0000	19,946.8092
2019	9.0816	44.3836	70.7339	0.1930	13.1824	1.5168	14.6992	3.5197	1.4261	4.9459	0.0000	19,416.9377	19,416.9377	1.3687	0.0000	19,451.1542
2020	8.2756	40.4576	65.4086	0.1888	13.1824	1.3014	14.4839	3.5198	1.2231	4.7429	0.0000	18,971.6682	18,971.6682	1.2956	0.0000	19,004.0586
2021	53.8398	36.7669	61.1443	0.1846	13.1825	1.0901	14.2726	3.5198	1.0236	4.5433	0.0000	18,555.7428	18,555.7428	1.2400	0.0000	18,586.7426
Maximum	**53.8398**	**59.6141**	**77.5878**	**0.1977**	**18.2675**	**2.6357**	**20.8462**	**9.9840**	**2.4249**	**12.3565**	**0.0000**	**19,910.6328**	**19,910.6328**	**1.9529**	**0.0000**	**19,946.8092**

2.2 Overall Operational

Unmitigated Operational

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Area	13.5592	1.4316	124.0223	6.5300e-003		0.6836	0.6836		0.6836	0.6836	0.0000	222.8318	222.8318	0.2160	0.0000	228.2304
Energy	0.6811	5.8764	2.8863	0.0372		0.4706	0.4706		0.4706	0.4706		7,430.4948	7,430.4948	0.1424	0.1362	7,474.6505
Mobile	22.0489	107.4458	282.4493	0.9604	79.3656	0.8397	80.2053	21.2404	0.7840	22.0244		97,707.4821	97,707.4821	5.3832		97,842.0632
Total	**36.2892**	**114.7538**	**409.3580**	**1.0041**	**79.3656**	**1.9939**	**81.3595**	**21.2404**	**1.9383**	**23.1786**	**0.0000**	**105,360.8086**	**105,360.8086**	**5.7416**	**0.1362**	**105,544.9441**

3.0 Construction Detail

Construction Phase

Phase Number	Phase Name	Phase Type	Start Date	End Date	Num Days Week	Num Days	Phase Description
1	Demolition	Demolition	1/1/2018	3/9/2018	5	50	
2	Site Preparation	Site Preparation	3/10/2018	4/20/2018	5	30	
3	Grading	Grading	4/21/2018	8/3/2018	5	75	
4	Building Construction	Building Construction	8/4/2018	6/4/2021	5	740	
5	Paving	Paving	6/5/2021	8/20/2021	5	55	
6	Architectural Coating	Architectural Coating	8/21/2021	11/5/2021	5	55	

Acres of Grading (Site Preparation Phase): 0

Acres of Grading (Grading Phase): 187.5

Acres of Paving: 0

Residential Indoor: 891,000; Residential Outdoor: 297,000; Non-Residential Indoor: 22,500; Non-Residential Outdoor: 7,500; Striped

OffRoad Equipment

Phase Name	Offroad Equipment Type	Amount	Usage Hours	Horse Power	Load Factor
Demolition	Concrete/Industrial Saws	1	8.00	81	0.73
Demolition	Excavators	3	8.00	158	0.38
Demolition	Rubber Tired Dozers	2	8.00	247	0.40
Site Preparation	Rubber Tired Dozers	3	8.00	247	0.40
Site Preparation	Tractors/Loaders/Backhoes	4	8.00	97	0.37
Grading	Excavators	2	8.00	158	0.38
Grading	Graders	1	8.00	187	0.41
Grading	Rubber Tired Dozers	1	8.00	247	0.40
Grading	Scrapers	2	8.00	367	0.48
Grading	Tractors/Loaders/Backhoes	2	8.00	97	0.37
Building Construction	Cranes	1	7.00	231	0.29
Building Construction	Forklifts	3	8.00	89	0.20
Building Construction	Generator Sets	1	8.00	84	0.74
Building Construction	Tractors/Loaders/Backhoes	3	7.00	97	0.37
Building Construction	Welders	1	8.00	46	0.45
Paving	Pavers	2	8.00	130	0.42
Paving	Paving Equipment	2	8.00	132	0.36
Paving	Rollers	2	8.00	80	0.38
Architectural Coating	Air Compressors	1	6.00	78	0.48

Trips and VMT

Phase Name	Offroad Equipment Count	Worker Trip Number	Vendor Trip Number	Hauling Trip Number	Worker Trip Length	Vendor Trip Length	Hauling Trip Length	Worker Vehicle Class	Vendor Vehicle Class	Hauling Vehicle Class
Demolition	6	15.00	0.00	0.00	14.70	6.90	20.00	LD_Mix	HDT_Mix	HHDT
Site Preparation	7	18.00	0.00	0.00	14.70	6.90	20.00	LD_Mix	HDT_Mix	HHDT
Grading	8	20.00	0.00	0.00	14.70	6.90	20.00	LD_Mix	HDT_Mix	HHDT
Building Construction	9	1,086.00	163.00	0.00	14.70	6.90	20.00	LD_Mix	HDT_Mix	HHDT
Paving	6	15.00	0.00	0.00	14.70	6.90	20.00	LD_Mix	HDT_Mix	HHDT
Architectural Coating	1	217.00	0.00	0.00	14.70	6.90	20.00	LD_Mix	HDT_Mix	HHDT

3.1 Mitigation Measures Construction

3.2 Demolition - 2018

Unmitigated Construction On-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Off-Road	3.7190	38.3225	22.3040	0.0388		1.9386	1.9386		1.8048	1.8048		3,871.7665	3,871.7665	1.0667		3,898.4344
Total	**3.7190**	**38.3225**	**22.3040**	**0.0388**		**1.9386**	**1.9386**		**1.8048**	**1.8048**		**3,871.7665**	**3,871.7665**	**1.0667**		**3,898.4344**

Unmitigated Construction Off-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Hauling	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000		0.0000	0.0000	0.0000		0.0000
Vendor	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000		0.0000	0.0000	0.0000		0.0000
Worker	0.0917	0.0693	0.7459	1.7800e-003	0.1677	1.4900e-003	0.1692	0.0445	1.3800e-003	0.0458		177.0864	177.0864	6.6600e-003		177.2530
Total	**0.0917**	**0.0693**	**0.7459**	**1.7800e-003**	**0.1677**	**1.4900e-003**	**0.1692**	**0.0445**	**1.3800e-003**	**0.0458**		**177.0864**	**177.0864**	**6.6600e-003**		**177.2530**

3.3 Site Preparation - 2018

Unmitigated Construction On-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e

Category	lb/day										lb/day					
Fugitive Dust					18.0663	0.0000	18.0663	9.9307	0.0000	9.9307			0.0000			0.0000
Off-Road	4.5627	48.1988	22.4763	0.0380		2.5769	2.5769		2.3708	2.3708		3,831.6239	3,831.6239	1.1928		3,861.4448
Total	**4.5627**	**48.1988**	**22.4763**	**0.0380**	**18.0663**	**2.5769**	**20.6432**	**9.9307**	**2.3708**	**12.3014**		**3,831.6239**	**3,831.6239**	**1.1928**		**3,861.4448**

Unmitigated Construction Off-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Hauling	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000		0.0000	0.0000	0.0000		0.0000
Vendor	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000		0.0000	0.0000	0.0000		0.0000
Worker	0.1101	0.0831	0.8951	2.1400e-003	0.2012	1.7900e-003	0.2030	0.0534	1.6500e-003	0.0550		212.5037	212.5037	8.0000e-003		212.7036
Total	**0.1101**	**0.0831**	**0.8951**	**2.1400e-003**	**0.2012**	**1.7900e-003**	**0.2030**	**0.0534**	**1.6500e-003**	**0.0550**		**212.5037**	**212.5037**	**8.0000e-003**		**212.7036**

3.4 Grading - 2018

Unmitigated Construction On-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Fugitive Dust					8.6733	0.0000	8.6733	3.5965	0.0000	3.5965			0.0000			0.0000
Off-Road	5.0901	59.5218	35.0894	0.0620		2.6337	2.6337		2.4230	2.4230		6,244.4284	6,244.4284	1.9440		6,293.0278
Total	**5.0901**	**59.5218**	**35.0894**	**0.0620**	**8.6733**	**2.6337**	**11.3071**	**3.5965**	**2.4230**	**6.0195**		**6,244.4284**	**6,244.4284**	**1.9440**		**6,293.0278**

Unmitigated Construction Off-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Hauling	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000		0.0000	0.0000	0.0000		0.0000
Vendor	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000		0.0000	0.0000	0.0000		0.0000
Worker	0.1223	0.0923	0.9945	2.3700e-003	0.2236	1.9900e-003	0.2256	0.0593	1.8400e-003	0.0611		236.1152	236.1152	8.8900e-003		236.3373
Total	**0.1223**	**0.0923**	**0.9945**	**2.3700e-003**	**0.2236**	**1.9900e-003**	**0.2256**	**0.0593**	**1.8400e-003**	**0.0611**		**236.1152**	**236.1152**	**8.8900e-003**		**236.3373**

3.5 Building Construction - 2018

Unmitigated Construction On-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Off-Road	2.6795	23.3900	17.5804	0.0269		1.4999	1.4999		1.4099	1.4099		2,620.9351	2,620.9351	0.6421		2,636.9883
Total	**2.6795**	**23.3900**	**17.5804**	**0.0269**		**1.4999**	**1.4999**		**1.4099**	**1.4099**		**2,620.9351**	**2,620.9351**	**0.6421**		**2,636.9883**

Unmitigated Construction Off-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Hauling	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000		0.0000	0.0000	0.0000		0.0000

Vendor	0.7814	20.0222	6.0039	0.0420	1.0435	0.1430	1.1865	0.3004	0.1368	0.4373		4,468.6427	4,468.6427	0.3224		4,476.7032
Worker	6.6407	5.0141	54.0035	0.1289	12.1389	0.1082	12.2471	3.2193	0.0998	3.3191		12,821.0550	12,821.0550	0.4825		12,833.1177
Total	**7.4221**	**25.0363**	**60.0074**	**0.1708**	**13.1824**	**0.2513**	**13.4337**	**3.5197**	**0.2366**	**3.7563**		**17,289.6976**	**17,289.6976**	**0.8049**		**17,309.8209**

3.5 Building Construction - 2019

Unmitigated Construction On-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Off-Road	2.3612	21.0788	17.1638	0.0269		1.2899	1.2899		1.2127	1.2127		2,591.5802	2,591.5802	0.6313		2,607.3635
Total	**2.3612**	**21.0788**	**17.1638**	**0.0269**		**1.2899**	**1.2899**		**1.2127**	**1.2127**		**2,591.5802**	**2,591.5802**	**0.6313**		**2,607.3635**

Unmitigated Construction Off-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Hauling	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000		0.0000	0.0000	0.0000		0.0000
Vendor	0.7064	18.8892	5.5172	0.0415	1.0435	0.1222	1.1657	0.3004	0.1169	0.4174		4,421.8169	4,421.8169	0.3106		4,429.5826
Worker	6.0140	4.4156	48.0529	0.1246	12.1389	0.1047	12.2436	3.2193	0.0965	3.3158		12,403.5406	12,403.5406	0.4267		12,414.2081
Total	**6.7204**	**23.3048**	**53.5701**	**0.1661**	**13.1824**	**0.2269**	**13.4093**	**3.5197**	**0.2134**	**3.7331**		**16,825.3575**	**16,825.3575**	**0.7373**		**16,843.7907**

3.5 Building Construction - 2020

Unmitigated Construction On-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Off-Road	2.1198	19.1860	16.8485	0.0269		1.1171	1.1171		1.0503	1.0503		2,553.0631	2,553.0631	0.6229		2,568.6345
Total	**2.1198**	**19.1860**	**16.8485**	**0.0269**		**1.1171**	**1.1171**		**1.0503**	**1.0503**		**2,553.0631**	**2,553.0631**	**0.6229**		**2,568.6345**

Unmitigated Construction Off-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Hauling	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000		0.0000	0.0000	0.0000		0.0000
Vendor	0.6061	17.3351	5.0104	0.0411	1.0435	0.0829	1.1264	0.3005	0.0793	0.3798		4,392.0198	4,392.0198	0.2937		4,399.3620
Worker	5.5497	3.9364	43.5498	0.1208	12.1389	0.1015	12.2404	3.2193	0.0935	3.3128		12,026.5854	12,026.5854	0.3791		12,036.0621
Total	**6.1558**	**21.2716**	**48.5601**	**0.1619**	**13.1824**	**0.1844**	**13.3668**	**3.5198**	**0.1728**	**3.6925**		**16,418.6052**	**16,418.6052**	**0.6728**		**16,435.4241**

3.5 Building Construction - 2021

Unmitigated Construction On-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Off-Road	1.9009	17.4321	16.5752	0.0269		0.9586	0.9586		0.9013	0.9013		2,553.3639	2,553.3639	0.6160		2,568.7643
Total	**1.9009**	**17.4321**	**16.5752**	**0.0269**		**0.9586**	**0.9586**		**0.9013**	**0.9013**		**2,553.3639**	**2,553.3639**	**0.6160**		**2,568.7643**

Unmitigated Construction Off-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Hauling	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000		0.0000	0.0000	0.0000		0.0000
Vendor	0.5201	15.7929	4.5765	0.0408	1.0436	0.0334	1.0770	0.3005	0.0319	0.3324		4,357.7321	4,357.7321	0.2813		4,364.7651
Worker	5.1783	3.5420	39.9926	0.1169	12.1389	0.0981	12.2370	3.2193	0.0904	3.3097		11,644.6468	11,644.6468	0.3427		11,653.2133
Total	**5.6984**	**19.3348**	**44.5691**	**0.1577**	**13.1825**	**0.1315**	**13.3140**	**3.5198**	**0.1223**	**3.6421**		**16,002.3789**	**16,002.3789**	**0.6240**		**16,017.9784**

3.6 Paving - 2021

Unmitigated Construction On-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Off-Road	1.2556	12.9191	14.6532	0.0228		0.6777	0.6777		0.6235	0.6235		2,207.2109	2,207.2109	0.7139		2,225.0573
Paving	0.0000					0.0000	0.0000		0.0000	0.0000			0.0000			0.0000
Total	**1.2556**	**12.9191**	**14.6532**	**0.0228**		**0.6777**	**0.6777**		**0.6235**	**0.6235**		**2,207.2109**	**2,207.2109**	**0.7139**		**2,225.0573**

Unmitigated Construction Off-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Hauling	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000		0.0000	0.0000	0.0000		0.0000
Vendor	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000		0.0000	0.0000	0.0000		0.0000
Worker	0.0715	0.0489	0.5524	1.6100e-003	0.1677	1.3500e-003	0.1690	0.0445	1.2500e-003	0.0457		160.8377	160.8377	4.7300e-003		160.9560

Total	**0.0715**	**0.0489**	**0.5524**	**1.6100e-003**	**0.1677**	**1.3500e-003**	**0.1690**	**0.0445**	**1.2500e-003**	**0.0457**		**160.8377**	**160.8377**	**4.7300e-003**		**160.9560**

3.7 Architectural Coating - 2021

Unmitigated Construction On-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Archit. Coating	52.5862					0.0000	0.0000		0.0000	0.0000			0.0000			0.0000
Off-Road	0.2189	1.5268	1.8176	2.9700e-003		0.0941	0.0941		0.0941	0.0941		281.4481	281.4481	0.0193		281.9309
Total	**52.8051**	**1.5268**	**1.8176**	**2.9700e-003**		**0.0941**	**0.0941**		**0.0941**	**0.0941**		**281.4481**	**281.4481**	**0.0193**		**281.9309**

Unmitigated Construction Off-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Hauling	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000		0.0000	0.0000	0.0000		0.0000
Vendor	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000		0.0000	0.0000	0.0000		0.0000
Worker	1.0347	0.7077	7.9912	0.0234	2.4256	0.0196	2.4452	0.6433	0.0181	0.6613		2,326.7849	2,326.7849	0.0685		2,328.4966
Total	**1.0347**	**0.7077**	**7.9912**	**0.0234**	**2.4256**	**0.0196**	**2.4452**	**0.6433**	**0.0181**	**0.6613**		**2,326.7849**	**2,326.7849**	**0.0685**		**2,328.4966**

CSULA Student Housing EIR

Los Angeles-South Coast County, Annual

1.0 Project Characteristics

1.1 Land Usage

Land Uses	Size	Metric	Lot Acreage	Floor Surface Area	Population
Health Club	30.00	1000sqft	0.69	30,000.00	0

1.2 Other Project Characteristics

Urbanization	Urban	**Wind Speed (m/s)**	2.2	**Precipitation Freq (Days)**	33
Climate Zone	12			**Operational Year**	2021
Utility Company	Los Angeles Department of Water & Power				
CO2 Intensity (lb/MWhr)	1227.89	**CH4 Intensity (lb/MWhr)**	0.029	**N2O Intensity (lb/MWhr)**	0.006

1.3 User Entered Comments & Non-Default Data

Project Characteristics - Operational year: 2021

Land Use - z

Construction Phase - adjusted to ensure that op was laster than final construction year

Off-road Equipment -

Architectural Coating - No arch. coatings in non-residential interior/exterior

Vehicle Trips - Updated based on Gibston TIS

Woodstoves - No fireplaces or woodstoves

Area Coating - No arch. coatings for Parking, non-res interior or non-res exterior (per Irena)

Energy Use -

Table Name	Column Name	Default Value	New Value
tblArchitecturalCoating	EF_Nonresidential_Exterior	100.00	0.00
tblArchitecturalCoating	EF_Nonresidential_Interior	100.00	0.00

tblArchitecturalCoating	EF_Parking	100.00	0.00
tblAreaCoating	Area_EF_Nonresidential_Exterior	100	0
tblAreaCoating	Area_EF_Nonresidential_Interior	100	0
tblAreaCoating	Area_EF_Parking	100	0
tblProjectCharacteristics	OperationalYear	2018	2021
tblVehicleTrips	CC_TL	8.40	13.78
tblVehicleTrips	CNW_TL	6.90	13.78
tblVehicleTrips	CW_TL	16.60	13.78
tblVehicleTrips	ST_TR	20.87	5.30
tblVehicleTrips	SU_TR	26.73	5.30
tblVehicleTrips	WD_TR	32.93	5.30

2.0 Emissions Summary

2.1 Overall Construction

Unmitigated Construction

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Year	tons/yr										MT/yr					
2016	0.0180	0.1623	0.1078	1.8000e-004	3.9900e-003	0.0104	0.0144	6.4000e-004	9.8000e-003	0.0105	0.0000	16.3406	16.3406	3.4700e-003	0.0000	16.4273
2017	0.1786	1.7090	1.1630	1.8400e-003	0.0355	0.1104	0.1459	0.0123	0.1019	0.1143	0.0000	170.4953	170.4953	0.0422	0.0000	171.5507
2018	0.0553	0.5245	0.4064	6.7000e-004	8.4800e-003	0.0320	0.0405	2.2800e-003	0.0296	0.0319	0.0000	60.9816	60.9816	0.0151	0.0000	61.3580
Maximum	**0.1786**	**1.7090**	**1.1630**	**1.8400e-003**	**0.0355**	**0.1104**	**0.1459**	**0.0123**	**0.1019**	**0.1143**	**0.0000**	**170.4953**	**170.4953**	**0.0422**	**0.0000**	**171.5507**

2.2 Overall Operational

Unmitigated Operational

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	tons/yr										MT/yr					
Area	0.1084	0.0000	3.8000e-004	0.0000		0.0000	0.0000		0.0000	0.0000	0.0000	7.4000e-004	7.4000e-004	0.0000	0.0000	7.9000e-004
Energy	2.9400e-003	0.0267	0.0224	1.6000e-004		2.0300e-003	2.0300e-003		2.0300e-003	2.0300e-003	0.0000	218.0497	218.0497	5.0200e-003	1.4600e-003	218.6092
Mobile	0.0510	0.2604	0.6848	2.3400e-003	0.1871	2.0000e-003	0.1891	0.0502	1.8700e-003	0.0520	0.0000	215.8106	215.8106	0.0116	0.0000	216.1016
Waste						0.0000	0.0000		0.0000	0.0000	34.7115	0.0000	34.7115	2.0514	0.0000	85.9962
Water						0.0000	0.0000		0.0000	0.0000	0.5629	19.5966	20.1595	0.0583	1.4600e-003	22.0518
Total	**0.1624**	**0.2871**	**0.7076**	**2.5000e-003**	**0.1871**	**4.0300e-003**	**0.1912**	**0.0502**	**3.9000e-003**	**0.0541**	**35.2744**	**453.4576**	**488.7320**	**2.1263**	**2.9200e-003**	**542.7595**

4.0 Operational Detail - Mobile

4.1 Mitigation Measures Mobile

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	tons/yr										MT/yr					
Mitigated	0.0510	0.2604	0.6848	2.3400e-003	0.1871	2.0000e-003	0.1891	0.0502	1.8700e-003	0.0520	0.0000	215.8106	215.8106	0.0116	0.0000	216.1016
Unmitigated	0.0510	0.2604	0.6848	2.3400e-003	0.1871	2.0000e-003	0.1891	0.0502	1.8700e-003	0.0520	0.0000	215.8106	215.8106	0.0116	0.0000	216.1016

4.2 Trip Summary Information

	Average Daily Trip Rate			Unmitigated	Mitigated
Land Use	Weekday	Saturday	Sunday	Annual VMT	Annual VMT

Health Club	159.00	159.00	159.00	492,996	492,996
Total	159.00	159.00	159.00	492,996	492,996

4.3 Trip Type Information

	Miles			Trip %			Trip Purpose %		
Land Use	H-W or C-W	H-S or C-C	H-O or C-NW	H-W or C-	H-S or C-C	H-O or C-NW	Primary	Diverted	Pass-by
Health Club	13.78	13.78	13.78	16.90	64.10	19.00	52	39	9

4.4 Fleet Mix

Land Use	LDA	LDT1	LDT2	MDV	LHD1	LHD2	MHD	HHD	OBUS	UBUS	MCY	SBUS	MH
Health Club	0.547192	0.045177	0.202743	0.121510	0.016147	0.006143	0.019743	0.029945	0.002479	0.002270	0.005078	0.000682	0.000891

CSULA Student Housing EIR

Los Angeles-South Coast County, Summer

1.0 Project Characteristics

1.1 Land Usage

Land Uses	Size	Metric	Lot Acreage	Floor Surface Area	Population
Health Club	30.00	1000sqft	0.69	30,000.00	0

1.2 Other Project Characteristics

Urbanization	Urban	**Wind Speed (m/s)**	2.2	**Precipitation Freq (Days)**	33
Climate Zone	12			**Operational Year**	2021

Utility Company Los Angeles Department of Water & Power

CO2 Intensity (lb/MWhr)	1227.89	**CH4 Intensity (lb/MWhr)**	0.029	**N2O Intensity (lb/MWhr)**	0.006

1.3 User Entered Comments & Non-Default Data

Project Characteristics - Operational year: 2021

Land Use - z

Construction Phase - adjusted to ensure that op was laster than final construction year

Off-road Equipment -

Architectural Coating - No arch. coatings in non-residential interior/exterior

Vehicle Trips - Updated based on Gibston TIS

Woodstoves - No fireplaces or woodstoves

Area Coating - No arch. coatings for Parking, non-res interior or non-res exterior (per Irena)

Energy Use -

Table Name	Column Name	Default Value	New Value
tblArchitecturalCoating	EF_Nonresidential_Exterior	100.00	0.00
tblArchitecturalCoating	EF_Nonresidential_Interior	100.00	0.00

tblArchitecturalCoating	EF_Parking	100.00	0.00
tblAreaCoating	Area_EF_Nonresidential_Exterior	100	0
tblAreaCoating	Area_EF_Nonresidential_Interior	100	0
tblAreaCoating	Area_EF_Parking	100	0
tblProjectCharacteristics	OperationalYear	2018	2021
tblVehicleTrips	CC_TL	8.40	13.78
tblVehicleTrips	CNW_TL	6.90	13.78
tblVehicleTrips	CW_TL	16.60	13.78
tblVehicleTrips	ST_TR	20.87	5.30
tblVehicleTrips	SU_TR	26.73	5.30
tblVehicleTrips	WD_TR	32.93	5.30

2.0 Emissions Summary

2.1 Overall Construction (Maximum Daily Emission)

Unmitigated Construction

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Year	lb/day										lb/day					
2016	1.3887	11.3012	8.6897	0.0133	0.5861	0.8104	1.0861	0.0721	0.7734	0.8030	0.0000	1,321.3515	1,321.3515	0.3094	0.0000	1,327.4358
2017	1.3885	13.4732	9.0558	0.0144	0.8645	0.8659	1.5974	0.4434	0.7969	1.1421	0.0000	1,474.7722	1,474.7722	0.3740	0.0000	1,484.1212
2018	1.1796	11.6986	8.6209	0.0144	0.2012	0.7143	0.8916	0.0534	0.6573	0.7051	0.0000	1,450.3516	1,450.3516	0.3723	0.0000	1,459.6596
Maximum	**1.3887**	**13.4732**	**9.0558**	**0.0144**	**0.8645**	**0.8659**	**1.5974**	**0.4434**	**0.7969**	**1.1421**	**0.0000**	**1,474.7722**	**1,474.7722**	**0.3740**	**0.0000**	**1,484.1212**

2.2 Overall Operational

Unmitigated Operational

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Area	0.5943	3.0000e-005	3.0700e-003	0.0000		1.0000e-005	1.0000e-005		1.0000e-005	1.0000e-005		6.5700e-003	6.5700e-003	2.0000e-005		7.0000e-003
Energy	0.0161	0.1463	0.1229	8.8000e-004		0.0111	0.0111		0.0111	0.0111		175.6003	175.6003	3.3700e-003	3.2200e-003	176.6438
Mobile	0.2954	1.3711	3.8972	0.0133	1.0483	0.0110	1.0593	0.2806	0.0103	0.2908		1,354.6203	1,354.6203	0.0710		1,356.3945
Total	**0.9058**	**1.5175**	**4.0232**	**0.0142**	**1.0483**	**0.0221**	**1.0705**	**0.2806**	**0.0214**	**0.3020**		**1,530.2272**	**1,530.2272**	**0.0744**	**3.2200e-003**	**1,533.0453**

4.0 Operational Detail - Mobile

4.1 Mitigation Measures Mobile

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Mitigated	0.2954	1.3711	3.8972	0.0133	1.0483	0.0110	1.0593	0.2806	0.0103	0.2908		1,354.6203	1,354.6203	0.0710		1,356.3945
Unmitigated	0.2954	1.3711	3.8972	0.0133	1.0483	0.0110	1.0593	0.2806	0.0103	0.2908		1,354.6203	1,354.6203	0.0710		1,356.3945

4.2 Trip Summary Information

	Average Daily Trip Rate			Unmitigated	Mitigated
Land Use	Weekday	Saturday	Sunday	Annual VMT	Annual VMT
Health Club	159.00	159.00	159.00	492,996	492,996
Total	159.00	159.00	159.00	492,996	492,996

4.3 Trip Type Information

	Miles			Trip %			Trip Purpose %		
Land Use	H-W or C-W	H-S or C-C	H-O or C-NW	H-W or C-	H-S or C-C	H-O or C-NW	Primary	Diverted	Pass-by
Health Club	13.78	13.78	13.78	16.90	64.10	19.00	52	39	9

4.4 Fleet Mix

Land Use	LDA	LDT1	LDT2	MDV	LHD1	LHD2	MHD	HHD	OBUS	UBUS	MCY	SBUS	MH
Health Club	0.547192	0.045177	0.202743	0.121510	0.016147	0.006143	0.019743	0.029945	0.002479	0.002270	0.005078	0.000682	0.000891

CSULA Student Housing EIR

Los Angeles-South Coast County, Winter

1.0 Project Characteristics

1.1 Land Usage

Land Uses	Size	Metric	Lot Acreage	Floor Surface Area	Population
Health Club	30.00	1000sqft	0.69	30,000.00	0

1.2 Other Project Characteristics

Urbanization	Urban	**Wind Speed (m/s)**	2.2	**Precipitation Freq (Days)**	33
Climate Zone	12			**Operational Year**	2021
Utility Company	Los Angeles Department of Water & Power				
CO2 Intensity (lb/MWhr)	1227.89	**CH4 Intensity (lb/MWhr)**	0.029	**N2O Intensity (lb/MWhr)**	0.006

1.3 User Entered Comments & Non-Default Data

Project Characteristics - Operational year: 2021

Land Use - z

Construction Phase - adjusted to ensure that op was laster than final construction year

Off-road Equipment -

Architectural Coating - No arch. coatings in non-residential interior/exterior

Vehicle Trips - Updated based on Gibston TIS

Woodstoves - No fireplaces or woodstoves

Area Coating - No arch. coatings for Parking, non-res interior or non-res exterior (per Irena)

Energy Use -

Table Name	Column Name	Default Value	New Value
tblArchitecturalCoating	EF_Nonresidential_Exterior	100.00	0.00
tblArchitecturalCoating	EF_Nonresidential_Interior	100.00	0.00

tblArchitecturalCoating	EF_Parking	100.00	0.00
tblAreaCoating	Area_EF_Nonresidential_Exterior	100	0
tblAreaCoating	Area_EF_Nonresidential_Interior	100	0
tblAreaCoating	Area_EF_Parking	100	0
tblProjectCharacteristics	OperationalYear	2018	2021
tblVehicleTrips	CC_TL	8.40	13.78
tblVehicleTrips	CNW_TL	6.90	13.78
tblVehicleTrips	CW_TL	16.60	13.78
tblVehicleTrips	ST_TR	20.87	5.30
tblVehicleTrips	SU_TR	26.73	5.30
tblVehicleTrips	WD_TR	32.93	5.30

2.0 Emissions Summary

2.1 Overall Construction (Maximum Daily Emission)

Unmitigated Construction

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Year	lb/day										lb/day					
2016	1.3962	11.3071	8.6407	0.0132	0.5861	0.8104	1.0861	0.0721	0.7734	0.8030	0.0000	1,313.6806	1,313.6806	0.3092	0.0000	1,319.7573
2017	1.3982	13.4822	9.0142	0.0143	0.8645	0.8660	1.5974	0.4434	0.7970	1.1421	0.0000	1,461.3443	1,461.3443	0.3742	0.0000	1,470.7004
2018	1.1883	11.7058	8.5818	0.0142	0.2012	0.7144	0.8917	0.0534	0.6574	0.7051	0.0000	1,437.0821	1,437.0821	0.3726	0.0000	1,446.3970
Maximum	**1.3982**	**13.4822**	**9.0142**	**0.0143**	**0.8645**	**0.8660**	**1.5974**	**0.4434**	**0.7970**	**1.1421**	**0.0000**	**1,461.3443**	**1,461.3443**	**0.3742**	**0.0000**	**1,470.7004**

2.2 Overall Operational

Unmitigated Operational

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Area	0.5943	3.0000e-005	3.0700e-003	0.0000		1.0000e-005	1.0000e-005		1.0000e-005	1.0000e-005		6.5700e-003	6.5700e-003	2.0000e-005		7.0000e-003
Energy	0.0161	0.1463	0.1229	8.8000e-004		0.0111	0.0111		0.0111	0.0111		175.6003	175.6003	3.3700e-003	3.2200e-003	176.6438
Mobile	0.2870	1.4046	3.7122	0.0127	1.0483	0.0111	1.0594	0.2806	0.0103	0.2909		1,288.7531	1,288.7531	0.0708		1,290.5227
Total	**0.8974**	**1.5510**	**3.8382**	**0.0136**	**1.0483**	**0.0222**	**1.0705**	**0.2806**	**0.0215**	**0.3020**		**1,464.3600**	**1,464.3600**	**0.0742**	**3.2200e-003**	**1,467.1736**

4.0 Operational Detail - Mobile

4.1 Mitigation Measures Mobile

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Mitigated	0.2870	1.4046	3.7122	0.0127	1.0483	0.0111	1.0594	0.2806	0.0103	0.2909		1,288.7531	1,288.7531	0.0708		1,290.5227
Unmitigated	0.2870	1.4046	3.7122	0.0127	1.0483	0.0111	1.0594	0.2806	0.0103	0.2909		1,288.7531	1,288.7531	0.0708		1,290.5227

4.2 Trip Summary Information

	Average Daily Trip Rate			Unmitigated	Mitigated
Land Use	Weekday	Saturday	Sunday	Annual VMT	Annual VMT
Health Club	159.00	159.00	159.00	492,996	492,996
Total	159.00	159.00	159.00	492,996	492,996

4.3 Trip Type Information

	Miles			Trip %			Trip Purpose %		
Land Use	H-W or C-W	H-S or C-C	H-O or C-NW	H-W or C-	H-S or C-C	H-O or C-NW	Primary	Diverted	Pass-by
Health Club	13.78	13.78	13.78	16.90	64.10	19.00	52	39	9

4.4 Fleet Mix

Land Use	LDA	LDT1	LDT2	MDV	LHD1	LHD2	MHD	HHD	OBUS	UBUS	MCY	SBUS	MH
Health Club	0.547192	0.045177	0.202743	0.121510	0.016147	0.006143	0.019743	0.029945	0.002479	0.002270	0.005078	0.000682	0.000891

CSULA Student Housing EIR - Parking

Los Angeles-South Coast County, Annual

1.0 Project Characteristics

1.1 Land Usage

Land Uses	Size	Metric	Lot Acreage	Floor Surface Area	Population
Apartments Mid Rise	200.00	Dwelling Unit	4.00	440,000.00	200

1.2 Other Project Characteristics

Urbanization	Urban	**Wind Speed (m/s)**	2.2	**Precipitation Freq (Days)**	33
Climate Zone	12			**Operational Year**	2021
Utility Company	Los Angeles Department of Water & Power				
CO2 Intensity (lb/MWhr)	1227.89	**CH4 Intensity (lb/MWhr)**	0.029	**N2O Intensity (lb/MWhr)**	0.006

1.3 User Entered Comments & Non-Default Data

Project Characteristics - Operational year: 2021

Land Use - z

Construction Phase - adjusted to ensure that op was laster than final construction year

Off-road Equipment -

Architectural Coating - No arch. coatings in non-residential interior/exterior

Vehicle Trips - Updated based on Gibston TIS

Woodstoves - No fireplaces or woodstoves

Area Coating - No arch. coatings for Parking, non-res interior or non-res exterior (per Irena)

Energy Use -

Table Name	Column Name	Default Value	New Value
tblArchitecturalCoating	EF_Nonresidential_Exterior	100.00	0.00
tblArchitecturalCoating	EF_Nonresidential_Interior	100.00	0.00

tblArchitecturalCoating	EF_Parking	100.00	0.00
tblAreaCoating	Area_EF_Nonresidential_Exterior	100	0
tblAreaCoating	Area_EF_Nonresidential_Interior	100	0
tblAreaCoating	Area_EF_Parking	100	0
tblFireplaces	FireplaceDayYear	25.00	0.00
tblFireplaces	FireplaceHourDay	3.00	0.00
tblFireplaces	FireplaceWoodMass	1,019.20	0.00
tblFireplaces	NumberGas	170.00	0.00
tblFireplaces	NumberNoFireplace	20.00	0.00
tblFireplaces	NumberWood	10.00	0.00
tblLandUse	BuildingSpaceSquareFeet	200,000.00	440,000.00
tblLandUse	LandUseSquareFeet	200,000.00	440,000.00
tblLandUse	LotAcreage	5.26	4.00
tblLandUse	Population	572.00	200.00
tblProjectCharacteristics	OperationalYear	2018	2021
tblVehicleTrips	ST_TR	6.39	1.42
tblVehicleTrips	SU_TR	5.86	1.42
tblVehicleTrips	WD_TR	6.65	1.42
tblWoodstoves	NumberCatalytic	10.00	0.00
tblWoodstoves	NumberNoncatalytic	10.00	0.00
tblWoodstoves	WoodstoveDayYear	25.00	0.00
tblWoodstoves	WoodstoveWoodMass	999.60	0.00

2.0 Emissions Summary

2.1 Overall Construction

Unmitigated Construction

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e

Year	tons/yr										MT/yr					
2016	0.0649	0.5516	0.3852	6.6000e-004	0.0304	0.0314	0.0618	0.0123	0.0294	0.0417	0.0000	60.7235	60.7235	0.0121	0.0000	61.0260
2017	0.5617	1.3147	1.1944	2.1800e-003	0.0732	0.0797	0.1529	0.0196	0.0748	0.0944	0.0000	197.4012	197.4012	0.0307	0.0000	198.1695
Maximum	**0.5617**	**1.3147**	**1.1944**	**2.1800e-003**	**0.0732**	**0.0797**	**0.1529**	**0.0196**	**0.0748**	**0.0944**	**0.0000**	**197.4012**	**197.4012**	**0.0307**	**0.0000**	**198.1695**

2.2 Overall Operational

Unmitigated Operational

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	tons/yr										MT/yr					
Area	1.7902	0.0239	2.0670	1.1000e-004		0.0114	0.0114		0.0114	0.0114	0.0000	3.3691	3.3691	3.2600e-003	0.0000	3.4507
Energy	0.0141	0.1204	0.0512	7.7000e-004		9.7300e-003	9.7300e-003		9.7300e-003	9.7300e-003	0.0000	620.9083	620.9083	0.0140	4.9100e-003	622.7220
Mobile	0.0952	0.4937	1.3252	4.5800e-003	0.3683	3.9100e-003	0.3722	0.0987	3.6500e-003	0.1024	0.0000	422.5769	422.5769	0.0226	0.0000	423.1409
Waste						0.0000	0.0000		0.0000	0.0000	18.6752	0.0000	18.6752	1.1037	0.0000	46.2669
Water						0.0000	0.0000		0.0000	0.0000	4.1341	145.3355	149.4696	0.4280	0.0107	163.3700
Total	**1.8996**	**0.6379**	**3.4434**	**5.4600e-003**	**0.3683**	**0.0250**	**0.3934**	**0.0987**	**0.0248**	**0.1235**	**22.8092**	**1,192.1898**	**1,214.9990**	**1.5716**	**0.0157**	**1,258.9505**

4.0 Operational Detail - Mobile

4.1 Mitigation Measures Mobile

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e

Category	tons/yr										MT/yr					
Mitigated	0.0952	0.4937	1.3252	4.5800e-003	0.3683	3.9100e-003	0.3722	0.0987	3.6500e-003	0.1024	0.0000	422.5769	422.5769	0.0226	0.0000	423.1409
Unmitigated	0.0952	0.4937	1.3252	4.5800e-003	0.3683	3.9100e-003	0.3722	0.0987	3.6500e-003	0.1024	0.0000	422.5769	422.5769	0.0226	0.0000	423.1409

4.2 Trip Summary Information

	Average Daily Trip Rate			Unmitigated	Mitigated
Land Use	Weekday	Saturday	Sunday	Annual VMT	Annual VMT
Apartments Mid Rise	284.00	284.00	284.00	970,471	970,471
Total	284.00	284.00	284.00	970,471	970,471

4.3 Trip Type Information

	Miles			Trip %			Trip Purpose %		
Land Use	H-W or C-W	H-S or C-C	H-O or C-NW	H-W or C-	H-S or C-C	H-O or C-NW	Primary	Diverted	Pass-by
Apartments Mid Rise	14.70	5.90	8.70	40.20	19.20	40.60	86	11	3

4.4 Fleet Mix

Land Use	LDA	LDT1	LDT2	MDV	LHD1	LHD2	MHD	HHD	OBUS	UBUS	MCY	SBUS	MH
Apartments Mid Rise	0.547192	0.045177	0.202743	0.121510	0.016147	0.006143	0.019743	0.029945	0.002479	0.002270	0.005078	0.000682	0.000891

CSULA Student Housing EIR - Parking

Los Angeles-South Coast County, Summer

1.0 Project Characteristics

1.1 Land Usage

Land Uses	Size	Metric	Lot Acreage	Floor Surface Area	Population
Apartments Mid Rise	200.00	Dwelling Unit	4.00	440,000.00	200

1.2 Other Project Characteristics

Urbanization	Urban	**Wind Speed (m/s)**	2.2	**Precipitation Freq (Days)**	33
Climate Zone	12			**Operational Year**	2021
Utility Company	Los Angeles Department of Water & Power				
CO2 Intensity (lb/MWhr)	1227.89	**CH4 Intensity (lb/MWhr)**	0.029	**N2O Intensity (lb/MWhr)**	0.006

1.3 User Entered Comments & Non-Default Data

Project Characteristics - Operational year: 2021

Land Use - z

Construction Phase - adjusted to ensure that op was laster than final construction year

Off-road Equipment -

Architectural Coating - No arch. coatings in non-residential interior/exterior

Vehicle Trips - Updated based on Gibston TIS

Woodstoves - No fireplaces or woodstoves

Area Coating - No arch. coatings for Parking, non-res interior or non-res exterior (per Irena)

Energy Use -

Table Name	Column Name	Default Value	New Value
tblArchitecturalCoating	EF_Nonresidential_Exterior	100.00	0.00
tblArchitecturalCoating	EF_Nonresidential_Interior	100.00	0.00

tblArchitecturalCoating	EF_Parking	100.00	0.00
tblAreaCoating	Area_EF_Nonresidential_Exterior	100	0
tblAreaCoating	Area_EF_Nonresidential_Interior	100	0
tblAreaCoating	Area_EF_Parking	100	0
tblFireplaces	FireplaceDayYear	25.00	0.00
tblFireplaces	FireplaceHourDay	3.00	0.00
tblFireplaces	FireplaceWoodMass	1,019.20	0.00
tblFireplaces	NumberGas	170.00	0.00
tblFireplaces	NumberNoFireplace	20.00	0.00
tblFireplaces	NumberWood	10.00	0.00
tblLandUse	BuildingSpaceSquareFeet	200,000.00	440,000.00
tblLandUse	LandUseSquareFeet	200,000.00	440,000.00
tblLandUse	LotAcreage	5.26	4.00
tblLandUse	Population	572.00	200.00
tblProjectCharacteristics	OperationalYear	2018	2021
tblVehicleTrips	ST_TR	6.39	1.42
tblVehicleTrips	SU_TR	5.86	1.42
tblVehicleTrips	WD_TR	6.65	1.42
tblWoodstoves	NumberCatalytic	10.00	0.00
tblWoodstoves	NumberNoncatalytic	10.00	0.00
tblWoodstoves	WoodstoveDayYear	25.00	0.00
tblWoodstoves	WoodstoveWoodMass	999.60	0.00

2.0 Emissions Summary

2.1 Overall Construction (Maximum Daily Emission)

Unmitigated Construction

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e

Year	lb/day										lb/day					
2016	5.3360	54.9145	29.5423	0.0517	18.2675	3.0708	21.3383	9.9840	2.8252	12.8092	0.0000	5,178.3893	5,178.3893	1.2048	0.0000	5,198.3110
2017	153.4687	29.9833	27.8263	0.0512	1.7440	1.8258	3.5698	0.4656	1.7148	2.1804	0.0000	5,100.4662	5,100.4662	0.7712	0.0000	5,119.7465
Maximum	**153.4687**	**54.9145**	**29.5423**	**0.0517**	**18.2675**	**3.0708**	**21.3383**	**9.9840**	**2.8252**	**12.8092**	**0.0000**	**5,178.3893**	**5,178.3893**	**1.2048**	**0.0000**	**5,198.3110**

2.2 Overall Operational

Unmitigated Operational

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Area	9.9673	0.1909	16.5361	8.7000e-004		0.0912	0.0912		0.0912	0.0912	0.0000	29.7105	29.7105	0.0288	0.0000	30.4303
Energy	0.0772	0.6594	0.2806	4.2100e-003		0.0533	0.0533		0.0533	0.0533		841.8398	841.8398	0.0161	0.0154	846.8424
Mobile	0.5509	2.5942	7.5633	0.0261	2.0636	0.0215	2.0851	0.5523	0.0201	0.5723		2,652.4020	2,652.4020	0.1377		2,655.8451
Total	**10.5954**	**3.4445**	**24.3800**	**0.0312**	**2.0636**	**0.1660**	**2.2296**	**0.5523**	**0.1645**	**0.7168**	**0.0000**	**3,523.9522**	**3,523.9522**	**0.1827**	**0.0154**	**3,533.1178**

4.0 Operational Detail - Mobile

4.1 Mitigation Measures Mobile

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					

Mitigated	0.5509	2.5942	7.5633	0.0261	2.0636	0.0215	2.0851	0.5523	0.0201	0.5723		2,652.4020	2,652.4020	0.1377		2,655.8451
Unmitigated	0.5509	2.5942	7.5633	0.0261	2.0636	0.0215	2.0851	0.5523	0.0201	0.5723		2,652.4020	2,652.4020	0.1377		2,655.8451

4.2 Trip Summary Information

	Average Daily Trip Rate			Unmitigated	Mitigated
Land Use	Weekday	Saturday	Sunday	Annual VMT	Annual VMT
Apartments Mid Rise	284.00	284.00	284.00	970,471	970,471
Total	284.00	284.00	284.00	970,471	970,471

4.3 Trip Type Information

	Miles			Trip %			Trip Purpose %		
Land Use	H-W or C-W	H-S or C-C	H-O or C-NW	H-W or C-	H-S or C-C	H-O or C-NW	Primary	Diverted	Pass-by
Apartments Mid Rise	14.70	5.90	8.70	40.20	19.20	40.60	86	11	3

4.4 Fleet Mix

Land Use	LDA	LDT1	LDT2	MDV	LHD1	LHD2	MHD	HHD	OBUS	UBUS	MCY	SBUS	MH
Apartments Mid Rise	0.547192	0.045177	0.202743	0.121510	0.016147	0.006143	0.019743	0.029945	0.002479	0.002270	0.005078	0.000682	0.000891

CSULA Student Housing EIR - Parking

Los Angeles-South Coast County, Winter

1.0 Project Characteristics

1.1 Land Usage

Land Uses	Size	Metric	Lot Acreage	Floor Surface Area	Population
Apartments Mid Rise	200.00	Dwelling Unit	4.00	440,000.00	200

1.2 Other Project Characteristics

Urbanization	Urban	**Wind Speed (m/s)**	2.2	**Precipitation Freq (Days)**	33
Climate Zone	12			**Operational Year**	2021
Utility Company	Los Angeles Department of Water & Power				
CO2 Intensity (lb/MWhr)	1227.89	**CH4 Intensity (lb/MWhr)**	0.029	**N2O Intensity (lb/MWhr)**	0.006

1.3 User Entered Comments & Non-Default Data

Project Characteristics - Operational year: 2021

Land Use - z

Construction Phase - adjusted to ensure that op was laster than final construction year

Off-road Equipment -

Architectural Coating - No arch. coatings in non-residential interior/exterior

Vehicle Trips - Updated based on Gibston TIS

Woodstoves - No fireplaces or woodstoves

Area Coating - No arch. coatings for Parking, non-res interior or non-res exterior (per Irena)

Energy Use -

Table Name	Column Name	Default Value	New Value
tblArchitecturalCoating	EF_Nonresidential_Exterior	100.00	0.00
tblArchitecturalCoating	EF_Nonresidential_Interior	100.00	0.00

tblArchitecturalCoating	EF_Parking	100.00	0.00
tblAreaCoating	Area_EF_Nonresidential_Exterior	100	0
tblAreaCoating	Area_EF_Nonresidential_Interior	100	0
tblAreaCoating	Area_EF_Parking	100	0
tblFireplaces	FireplaceDayYear	25.00	0.00
tblFireplaces	FireplaceHourDay	3.00	0.00
tblFireplaces	FireplaceWoodMass	1,019.20	0.00
tblFireplaces	NumberGas	170.00	0.00
tblFireplaces	NumberNoFireplace	20.00	0.00
tblFireplaces	NumberWood	10.00	0.00
tblLandUse	BuildingSpaceSquareFeet	200,000.00	440,000.00
tblLandUse	LandUseSquareFeet	200,000.00	440,000.00
tblLandUse	LotAcreage	5.26	4.00
tblLandUse	Population	572.00	200.00
tblProjectCharacteristics	OperationalYear	2018	2021
tblVehicleTrips	ST_TR	6.39	1.42
tblVehicleTrips	SU_TR	5.86	1.42
tblVehicleTrips	WD_TR	6.65	1.42
tblWoodstoves	NumberCatalytic	10.00	0.00
tblWoodstoves	NumberNoncatalytic	10.00	0.00
tblWoodstoves	WoodstoveDayYear	25.00	0.00
tblWoodstoves	WoodstoveWoodMass	999.60	0.00

2.0 Emissions Summary

2.1 Overall Construction (Maximum Daily Emission)

Unmitigated Construction

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e

Year	lb/day										lb/day					
2016	5.3496	54.9252	28.9166	0.0504	18.2675	3.0708	21.3383	9.9840	2.8252	12.8092	0.0000	5,053.1738	5,053.1738	1.2043	0.0000	5,073.0575
2017	153.4878	30.0671	27.2432	0.0499	1.7440	1.8261	3.5701	0.4656	1.7152	2.1808	0.0000	4,977.0149	4,977.0149	0.7699	0.0000	4,996.2628
Maximum	**153.4878**	**54.9252**	**28.9166**	**0.0504**	**18.2675**	**3.0708**	**21.3383**	**9.9840**	**2.8252**	**12.8092**	**0.0000**	**5,053.1738**	**5,053.1738**	**1.2043**	**0.0000**	**5,073.0575**

2.2 Overall Operational

Unmitigated Operational

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Area	9.9673	0.1909	16.5361	8.7000e-004		0.0912	0.0912		0.0912	0.0912	0.0000	29.7105	29.7105	0.0288	0.0000	30.4303
Energy	0.0772	0.6594	0.2806	4.2100e-003		0.0533	0.0533		0.0533	0.0533		841.8398	841.8398	0.0161	0.0154	846.8424
Mobile	0.5354	2.6627	7.1768	0.0248	2.0636	0.0216	2.0852	0.5523	0.0202	0.5725		2,524.0452	2,524.0452	0.1371		2,527.4730
Total	**10.5798**	**3.5130**	**23.9936**	**0.0299**	**2.0636**	**0.1661**	**2.2297**	**0.5523**	**0.1646**	**0.7169**	**0.0000**	**3,395.5955**	**3,395.5955**	**0.1820**	**0.0154**	**3,404.7457**

4.0 Operational Detail - Mobile

4.1 Mitigation Measures Mobile

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					

Mitigated	0.5354	2.6627	7.1768	0.0248	2.0636	0.0216	2.0852	0.5523	0.0202	0.5725		2,524.0452	2,524.0452	0.1371		2,527.4730
Unmitigated	0.5354	2.6627	7.1768	0.0248	2.0636	0.0216	2.0852	0.5523	0.0202	0.5725		2,524.0452	2,524.0452	0.1371		2,527.4730

4.2 Trip Summary Information

	Average Daily Trip Rate			Unmitigated	Mitigated
Land Use	Weekday	Saturday	Sunday	Annual VMT	Annual VMT
Apartments Mid Rise	284.00	284.00	284.00	970,471	970,471
Total	284.00	284.00	284.00	970,471	970,471

4.3 Trip Type Information

	Miles			Trip %			Trip Purpose %		
Land Use	H-W or C-W	H-S or C-C	H-O or C-NW	H-W or C-	H-S or C-C	H-O or C-NW	Primary	Diverted	Pass-by
Apartments Mid Rise	14.70	5.90	8.70	40.20	19.20	40.60	86	11	3

4.4 Fleet Mix

Land Use	LDA	LDT1	LDT2	MDV	LHD1	LHD2	MHD	HHD	OBUS	UBUS	MCY	SBUS	MH
Apartments Mid Rise	0.547192	0.045177	0.202743	0.121510	0.016147	0.006143	0.019743	0.029945	0.002479	0.002270	0.005078	0.000682	0.000891

CSULA Student Housing EIR

Los Angeles-South Coast County, Annual

1.0 Project Characteristics

1.1 Land Usage

Land Uses	Size	Metric	Lot Acreage	Floor Surface Area	Population
Health Club	30.00	1000sqft	0.69	30,000.00	0
High Turnover (Sit Down Restaurant)	15.00	1000sqft	0.34	15,000.00	0
Apartments Mid Rise	500.00	Dwelling Unit	4.00	440,000.00	1500

1.2 Other Project Characteristics

Urbanization	Urban	**Wind Speed (m/s)**	2.2	**Precipitation Freq (Days)**	33
Climate Zone	12			**Operational Year**	2021
Utility Company	Los Angeles Department of Water & Power				
CO2 Intensity (lb/MWhr)	1227.89	**CH4 Intensity (lb/MWhr)**	0.029	**N2O Intensity (lb/MWhr)**	0.006

1.3 User Entered Comments & Non-Default Data

Project Characteristics - Operational year: 2021

Land Use - LAFC bundled with its soccer field

Construction Phase - adjusted to ensure that op was laster than final construction year

Off-road Equipment -

Architectural Coating - No arch. coatings in non-residential interior/exterior

Vehicle Trips - Updated based on Gibston TIS

Woodstoves - No fireplaces or woodstoves

Area Coating - No arch. coatings for Parking, non-res interior or non-res exterior (per Irena)

Energy Use -

Table Name	Column Name	Default Value	New Value

tblArchitecturalCoating	EF_Nonresidential_Exterior	100.00	0.00
tblArchitecturalCoating	EF_Nonresidential_Interior	100.00	0.00
tblArchitecturalCoating	EF_Parking	100.00	0.00
tblFireplaces	FireplaceDayYear	25.00	0.00
tblFireplaces	FireplaceHourDay	3.00	0.00
tblFireplaces	FireplaceWoodMass	1,019.20	0.00
tblFireplaces	NumberGas	425.00	0.00
tblFireplaces	NumberNoFireplace	50.00	0.00
tblFireplaces	NumberWood	25.00	0.00
tblLandUse	BuildingSpaceSquareFeet	500,000.00	440,000.00
tblLandUse	LandUseSquareFeet	500,000.00	440,000.00
tblLandUse	LotAcreage	13.16	4.00
tblLandUse	Population	1,430.00	1,500.00
tblProjectCharacteristics	OperationalYear	2018	2021
tblWoodstoves	NumberCatalytic	25.00	0.00
tblWoodstoves	NumberNoncatalytic	25.00	0.00
tblWoodstoves	WoodstoveDayYear	25.00	0.00
tblWoodstoves	WoodstoveWoodMass	999.60	0.00

2.0 Emissions Summary

2.1 Overall Construction

Unmitigated Construction

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Year	tons/yr										MT/yr					
2016	0.0686	0.7026	0.3562	5.9000e-004	0.0929	0.0375	0.1303	0.0503	0.0347	0.0851	0.0000	54.8910	54.8910	0.0148	0.0000	55.2605
2017	0.7126	4.6868	5.1713	0.0108	0.6801	0.2423	0.9224	0.2236	0.2272	0.4507	0.0000	983.7497	983.7497	0.1133	0.0000	986.5825

2018	1.3933	0.1204	0.1429	2.6000e-004	9.2300e-003	6.8500e-003	0.0161	2.4500e-003	6.4200e-003	8.8700e-003	0.0000	23.1728	23.1728	4.1500e-003	0.0000	23.2765
Maximum	**1.3933**	**4.6868**	**5.1713**	**0.0108**	**0.6801**	**0.2423**	**0.9224**	**0.2236**	**0.2272**	**0.4507**	**0.0000**	**983.7497**	**983.7497**	**0.1133**	**0.0000**	**986.5825**

2.2 Overall Operational

Unmitigated Operational

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	tons/yr										MT/yr					
Area	2.0677	0.0597	5.1681	2.7000e-004		0.0285	0.0285		0.0285	0.0285	0.0000	8.4239	8.4239	8.1700e-003	0.0000	8.6280
Energy	0.0568	0.4974	0.2931	3.1000e-003		0.0393	0.0393		0.0393	0.0393	0.0000	2,329.3965	2,329.3965	0.0525	0.0189	2,336.3549
Mobile	1.8176	9.0160	22.7188	0.0756	5.9798	0.0653	6.0450	1.6030	0.0609	1.6639	0.0000	6,979.4014	6,979.4014	0.3848	0.0000	6,989.0204
Waste						0.0000	0.0000		0.0000	0.0000	117.6333	0.0000	117.6333	6.9519	0.0000	291.4314
Water						0.0000	0.0000		0.0000	0.0000	12.3425	417.7530	430.0956	1.2776	0.0320	471.5631
Total	**3.9421**	**9.5730**	**28.1801**	**0.0790**	**5.9798**	**0.1330**	**6.1128**	**1.6030**	**0.1287**	**1.7316**	**129.9758**	**9,734.9748**	**9,864.9506**	**8.6749**	**0.0509**	**10,096.9978**

CSULA Student Housing EIR

Los Angeles-South Coast County, Summer

1.0 Project Characteristics

1.1 Land Usage

Land Uses	Size	Metric	Lot Acreage	Floor Surface Area	Population
Health Club	30.00	1000sqft	0.69	30,000.00	0
High Turnover (Sit Down Restaurant)	15.00	1000sqft	0.34	15,000.00	0
Apartments Mid Rise	500.00	Dwelling Unit	4.00	440,000.00	1500

1.2 Other Project Characteristics

Urbanization	Urban	**Wind Speed (m/s)**	2.2	**Precipitation Freq (Days)**	33
Climate Zone	12			**Operational Year**	2021
Utility Company	Los Angeles Department of Water & Power				
CO2 Intensity (lb/MWhr)	1227.89	**CH4 Intensity (lb/MWhr)**	0.029	**N2O Intensity (lb/MWhr)**	0.006

1.3 User Entered Comments & Non-Default Data

Project Characteristics - Operational year: 2021

Land Use - LAFC bundled with its soccer field

Construction Phase - adjusted to ensure that op was laster than final construction year

Off-road Equipment -

Architectural Coating - No arch. coatings in non-residential interior/exterior

Vehicle Trips - Updated based on Gibston TIS

Woodstoves - No fireplaces or woodstoves

Area Coating - No arch. coatings for Parking, non-res interior or non-res exterior (per Irena)

Energy Use -

Table Name	Column Name	Default Value	New Value

tblArchitecturalCoating	EF_Nonresidential_Exterior	100.00	0.00
tblArchitecturalCoating	EF_Nonresidential_Interior	100.00	0.00
tblArchitecturalCoating	EF_Parking	100.00	0.00
tblFireplaces	FireplaceDayYear	25.00	0.00
tblFireplaces	FireplaceHourDay	3.00	0.00
tblFireplaces	FireplaceWoodMass	1,019.20	0.00
tblFireplaces	NumberGas	425.00	0.00
tblFireplaces	NumberNoFireplace	50.00	0.00
tblFireplaces	NumberWood	25.00	0.00
tblLandUse	BuildingSpaceSquareFeet	500,000.00	440,000.00
tblLandUse	LandUseSquareFeet	500,000.00	440,000.00
tblLandUse	LotAcreage	13.16	4.00
tblLandUse	Population	1,430.00	1,500.00
tblProjectCharacteristics	OperationalYear	2018	2021
tblWoodstoves	NumberCatalytic	25.00	0.00
tblWoodstoves	NumberNoncatalytic	25.00	0.00
tblWoodstoves	WoodstoveDayYear	25.00	0.00
tblWoodstoves	WoodstoveWoodMass	999.60	0.00

2.0 Emissions Summary

2.1 Overall Construction (Maximum Daily Emission)

Unmitigated Construction

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Year	lb/day										lb/day					
2016	5.3360	54.9145	25.1808	0.0408	18.2675	3.0708	21.3383	9.9840	2.8252	12.8092	0.0000	4,195.9316	4,195.9316	1.2048	0.0000	4,226.0523
2017	5.8034	52.3617	43.7769	0.0923	18.2675	2.8804	21.1479	9.9840	2.6500	12.6341	0.0000	9,259.7941	9,259.7941	1.2030	0.0000	9,284.1721

2018	138.3780	17.5834	15.6065	0.0247	0.8495	0.9576	1.1253	0.2253	0.8810	0.9255	0.0000	2,482.1422	2,482.1422	0.7212	0.0000	2,500.1731
Maximum	**138.3780**	**54.9145**	**43.7769**	**0.0923**	**18.2675**	**3.0708**	**21.3383**	**9.9840**	**2.8252**	**12.8092**	**0.0000**	**9,259.7941**	**9,259.7941**	**1.2048**	**0.0000**	**9,284.1721**

2.2 Overall Operational

Unmitigated Operational

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Area	11.7246	0.4773	41.3449	2.1800e-003		0.2279	0.2279		0.2279	0.2279	0.0000	74.2860	74.2860	0.0720	0.0000	76.0861
Energy	0.3114	2.7255	1.6061	0.0170		0.2151	0.2151		0.2151	0.2151		3,396.8961	3,396.8961	0.0651	0.0623	3,417.0821
Mobile	11.3845	51.1724	136.9717	0.4578	35.5376	0.3809	35.9185	9.5108	0.3555	9.8663		46,556.5338	46,556.5338	2.4943		46,618.8915
Total	**23.4205**	**54.3752**	**179.9228**	**0.4769**	**35.5376**	**0.8239**	**36.3615**	**9.5108**	**0.7986**	**10.3094**	**0.0000**	**50,027.7159**	**50,027.7159**	**2.6314**	**0.0623**	**50,112.0597**

CSULA Student Housing EIR

Los Angeles-South Coast County, Winter

1.0 Project Characteristics

1.1 Land Usage

Land Uses	Size	Metric	Lot Acreage	Floor Surface Area	Population
Health Club	30.00	1000sqft	0.69	30,000.00	0
High Turnover (Sit Down Restaurant)	15.00	1000sqft	0.34	15,000.00	0
Apartments Mid Rise	500.00	Dwelling Unit	4.00	440,000.00	1500

1.2 Other Project Characteristics

Urbanization	Urban	**Wind Speed (m/s)**	2.2	**Precipitation Freq (Days)**	33
Climate Zone	12			**Operational Year**	2021
Utility Company	Los Angeles Department of Water & Power				
CO2 Intensity (lb/MWhr)	1227.89	**CH4 Intensity (lb/MWhr)**	0.029	**N2O Intensity (lb/MWhr)**	0.006

1.3 User Entered Comments & Non-Default Data

Project Characteristics - Operational year: 2021

Land Use - LAFC bundled with its soccer field

Construction Phase - adjusted to ensure that op was laster than final construction year

Off-road Equipment -

Architectural Coating - No arch. coatings in non-residential interior/exterior

Vehicle Trips - Updated based on Gibston TIS

Woodstoves - No fireplaces or woodstoves

Area Coating - No arch. coatings for Parking, non-res interior or non-res exterior (per Irena)

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Table Name	Column Name	Default Value	New Value

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tblArchitecturalCoating	EF_Nonresidential_Interior	100.00	0.00
tblArchitecturalCoating	EF_Parking	100.00	0.00
tblFireplaces	FireplaceDayYear	25.00	0.00
tblFireplaces	FireplaceHourDay	3.00	0.00
tblFireplaces	FireplaceWoodMass	1,019.20	0.00
tblFireplaces	NumberGas	425.00	0.00
tblFireplaces	NumberNoFireplace	50.00	0.00
tblFireplaces	NumberWood	25.00	0.00
tblLandUse	BuildingSpaceSquareFeet	500,000.00	440,000.00
tblLandUse	LandUseSquareFeet	500,000.00	440,000.00
tblLandUse	LotAcreage	13.16	4.00
tblLandUse	Population	1,430.00	1,500.00
tblProjectCharacteristics	OperationalYear	2018	2021
tblWoodstoves	NumberCatalytic	25.00	0.00
tblWoodstoves	NumberNoncatalytic	25.00	0.00
tblWoodstoves	WoodstoveDayYear	25.00	0.00
tblWoodstoves	WoodstoveWoodMass	999.60	0.00

2.0 Emissions Summary

2.1 Overall Construction (Maximum Daily Emission)

Unmitigated Construction

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Year	lb/day										lb/day					
2016	5.3496	54.9252	25.0925	0.0407	18.2675	3.0708	21.3383	9.9840	2.8252	12.8092	0.0000	4,182.1239	4,182.1239	1.2043	0.0000	4,212.2312
2017	6.0670	52.3710	42.2626	0.0890	18.2675	2.8804	21.1479	9.9840	2.6500	12.6341	0.0000	8,930.6638	8,930.6638	1.2025	0.0000	8,954.9748

2018	138.4229	17.5902	15.5423	0.0246	0.8495	0.9576	1.1253	0.2253	0.8810	0.9255	0.0000	2,471.1751	2,471.1751	0.7208	0.0000	2,489.1963
Maximum	**138.4229**	**54.9252**	**42.2626**	**0.0890**	**18.2675**	**3.0708**	**21.3383**	**9.9840**	**2.8252**	**12.8092**	**0.0000**	**8,930.6638**	**8,930.6638**	**1.2043**	**0.0000**	**8,954.9748**

2.2 Overall Operational

Unmitigated Operational

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Area	11.7246	0.4773	41.3449	2.1800e-003		0.2279	0.2279		0.2279	0.2279	0.0000	74.2860	74.2860	0.0720	0.0000	76.0861
Energy	0.3114	2.7255	1.6061	0.0170		0.2151	0.2151		0.2151	0.2151		3,396.8961	3,396.8961	0.0651	0.0623	3,417.0821
Mobile	11.0566	52.2002	131.6904	0.4350	35.5376	0.3834	35.9210	9.5108	0.3580	9.8688		44,265.2681	44,265.2681	2.4997		44,327.7617
Total	**23.0926**	**55.4030**	**174.6414**	**0.4542**	**35.5376**	**0.8265**	**36.3641**	**9.5108**	**0.8010**	**10.3118**	**0.0000**	**47,736.4502**	**47,736.4502**	**2.6369**	**0.0623**	**47,820.9299**

Mitigation Monitoring Program

North Campus Project

California State University, Los Angeles

CAL STATE LA

May 2017

WSP | PARSONS BRINCKERHOFF

EXHIBIT A
Environmental Mitigation Monitoring Program
North Campus Project
California State University, Los Angeles

Section 1: Authority

This Environmental Mitigation Monitoring Program has been prepared pursuant to Section 21081.6 of the California Environmental Quality Act, known as CEQA (Public Resources Code Section 21000 et seq.), to provide for the monitoring of mitigation measures required of the North Campus project, as set forth in the Final Environmental Impact Report (EIR) prepared for the project (State Clearinghouse No. 2016111038). This report will be kept on file in the office of the California State University, Los Angeles, Planning, Design and Construction, 5151 State University Drive, Los Angeles, CA 90032.

Section 2: Monitoring Schedule

The California State University, Los Angeles will be responsible for ensuring compliance with mitigation monitoring applicable to implementation of the Project. Staff will prepare or cause to be prepared reports identifying compliance with mitigation measures, as appropriate. Once construction has begun and is underway, monitoring of the mitigation measures associated with construction will be carried out by the California State University, Los Angeles.

Section 3: Changes to Mitigation Measures

Any substantive change in the monitoring and reporting program made by the Lead Agency will be reported in writing. Modifications to the mitigation measures may be made by the Lead Agency subject to one of the following findings, documented by evidence included in the record:

a. The mitigation measure included in the Final EIR and the Mitigation Monitoring Program is no longer required because the significant environmental impact identified in the Final EIR has been found not to exist, or to occur at a level which makes the impact less than significant as a result of changes in the project, changes in conditions of the environment, or other factors.

OR

b. The modified or substitute mitigation measure to be included in the Mitigation Monitoring Program provides a level of environmental protection equal to or greater than that afforded by the mitigation measure included in the Final EIR and the Mitigation Monitoring Program; and

The modified or substitute mitigation measures do not have significant adverse effects on the environment in addition to or greater than those which were considered by the Board of Trustees and other responsible hearing bodies in their decision on the Final EIR and the proposed project; and

The modified or substitute mitigation measures are feasible, and the Lead Agency, through measures included in the Mitigation Monitoring Program or other Lead Agency procedures, can assure their implementation.

Findings and related documentation supporting the findings involving modifications to mitigation measures will be maintained in the project file with the Mitigation Monitoring Program and will be made available to the public upon request.

Section 5: Mitigation Monitoring Matrix

The mitigation monitoring matrix identifies the environmental issue areas for which monitoring is required, the required mitigation measures, the time frame for monitoring, and the responsible monitoring agencies.

Mitigation Measures	Time Frame / Monitoring Milestone	Responsible Monitoring Party
Tribal Cultural Resources While the potential for uncovering significant tribal cultural resources at the project site is considered remote, in an unlikely event that such potential resources are discovered during project construction, the following measures will be implemented: 1. All earth moving construction activity will be halted until a qualified Native American monitor can visit the site and assess the significance of the potential resource.	During construction	CSU Los Angeles
2. The Native American monitor will then conduct on-site cultural tribal resources monitoring, including inspection of exposed surfaces to determine if such resources are present.	During construction	CSU Los Angeles
3. If such resources are present, the Native American monitor will have the authority to divert grading away from exposed resources temporarily to examine the potential significance of such resources.	During construction	CSU Los Angeles
4. If such resources are determined significant and the resource cannot be recovered, the resource site will be covered with a layer of chemically stable soil before constructing project facilities on the site, if feasible; or if data recovery through excavation is the only feasible mitigation, a data recovery plan, which makes provision for adequately recovering the scientifically consequential information from and about the tribal cultural resource will be prepared and adopted prior to any excavation being undertaken and implemented during excavation or grading.	During construction	CSU Los Angeles
5. Such significant resources will be treated with culturally appropriate dignity taking into account the tribal cultural values and meaning of the resource, including protecting the confidentiality of the resource.	During construction	CSU Los Angeles
Short-term Construction Air Quality 1. During high wind episodes (wind speeds exceeding a sustained rate of 25 miles per hour); grading or other high-dust generating activities	During construction	CSU Los Angeles and contractor

Mitigation Measures	Time Frame / Monitoring Milestone	Responsible Monitoring Party
will be suspended.		
2. During smog alerts, all construction activities will be suspended.	During construction	CSU Los Angeles and contractor
3. All construction equipment will be properly tuned.	During construction	CSU Los Angeles and contractor
4. Diesel particulate filters are installed on diesel equipment and trucks and low sulfur diesel will be used for construction equipment.	During construction	CSU Los Angeles and contractor
5. Gasoline, butane, or electric power construction equipment will be used if feasible.	During construction	CSU Los Angeles and contractor
6. To reduce emissions from idling, all equipment and vehicles not in use for more than 5 minutes will be turned off, whenever feasible.	During construction	CSU Los Angeles and contractor
7. Low VOC-content asphalt and concrete will be utilized to the extent possible.	During construction	CSU Los Angeles and contractor
8. All stockpiles will be covered with tarps or plastic sheeting.	During construction	CSU Los Angeles and contractor
9. Speeds on unpaved roads will be reduced below 15 miles per hour.	During construction	CSU Los Angeles and contractor
10. All haul trucks that carry contents subject to airborne dispersal will be covered.	During construction	CSU Los Angeles and contractor
11. All access points to the site used by haul trucks will be kept clean during site earthwork.	During construction	CSU Los Angeles and contractor
12. Exposed surfaces will be watered as needed.	During construction	CSU Los Angeles and contractor
13. All access points used by haul trucks will be kept clean during earthwork.	During construction	CSU Los Angeles and contractor
14. Electricity from power poles rather than temporary diesel or gasoline generators will be used to the extent available.	During construction	CSU Los Angeles and contractor
15. As needed, campus outdoor activities in the site vicinity will be limited during high-dust and other heavy construction activities.	During construction	CSU Los Angeles and contractor

Mitigation Measures	Time Frame / Monitoring Milestone	Responsible Monitoring Party
16. Throughout the construction period, the ventilation systems in existing student residence halls adjacent to the project site will be tested and as needed, put on a more frequent maintenance schedule to ensure that they are functioning properly and providing proper ventilation. 17. During construction of the parking structure, disturbed areas within the construction site will be watered every 3 hours.	During construction	CSU Los Angeles and contractor
Furthermore, the University will continue to: 1. Include in all construction contracts the requirement to use 2010 and newer diesel haul trucks (e.g., material delivery trucks and soil import/export). In the event that that 2010 model year or newer diesel trucks cannot be obtained, provide documentation as information becomes available and use trucks that meet EPA 2007 model year NOx emissions requirements. 2. Include in all construction contracts the requirement that all off-road diesel-powered construction equipment greater than 50 hp shall meet Tier 4 off-road emission standards at a minimum. In addition, if not already supplied with a factory-equipped diesel particulate filter, all construction equipment shall be outfitted with BACT devices certified by CARB. Any emissions control device used by the contractor shall achieve emissions reductions that are no less than what could be achieved by a Level 3 diesel emissions control strategy for a similarly sized engine as defined by CARB regulations. In addition, construction equipment shall incorporate, where feasible, emissions savings technology such as hybrid drives and specific fuel economy standards. In the event that any equipment required under this mitigation measure is not available, provide documentation as information becomes available. A copy of each unit's certified tier specification, BACT documentation, and CARB or SCAQMD operating permit at the time of mobilization of each applicable unit of equipment shall be provided.	During construction	CSU Los Angeles and contractor
Construction Noise 1. Construction will be consistent with the City of Los Angeles regulations, which limit the hours of construction activity to between 7:00 am and 9:00 pm Monday through Friday, and from 8:00 am to 6:00 pm on Saturdays and national holidays. No construction activity will take place on Sunday.	During construction	CSU Los Angeles and contractor
2. Muffled construction equipment will be used whenever possible.	During construction	CSU Los Angeles and contractor
3. Construction staging areas will be located as far as possible from nearby uses.	During construction	CSU Los Angeles and contractor

Mitigation Measures	Time Frame / Monitoring Milestone	Responsible Monitoring Party
4. As needed, a temporary barrier of no less than 8 feet in height made of solid wood or other similar material will be provided and placed strategically along the construction site's boundaries to protect the nearby residential uses, the existing student residences, the Anna Bing Arnold Children's Center, and LACHSA from construction noise.	During construction	CSU Los Angeles and contractor
Construction Traffic and Parking 1. A flag person will be employed as needed at various intersections to direct traffic when heavy construction vehicles enter the campus.	During construction	CSU Los Angeles and contractor
2. Construction and haul trucks will use the City of Los Angeles designated truck routes to travel to and from the site.	During construction	CSU Los Angeles and contractor
3. Construction-related truck traffic will be scheduled to avoid peak travel time on the I-10 and I-710 freeways, as feasible.	During construction	CSU Los Angeles and contractor
4. Hauling of equipment and materials and other truck trips during construction will be scheduled during non-peak hours, to the extent feasible.	During construction	CSU Los Angeles and contractor
Construction Solid Waste 1. Construction inert materials, including vegetative matter, asphalt, concrete, and other recyclable materials will be recycled to the extent feasible.	During construction	CSU Los Angeles and contractor

Compliance with Existing Regulations during Construction

1. **Stormwater.** For construction, in compliance with the existing regulations and as applicable a Construction Storm Water General Permit will be obtained from the Regional Water Quality Control Board, and Pollution Prevention Plan (SWPPP) will be instituted to reduce the entry of construction debris, sediment, and other material from the construction site into local waterways. The SWPPP may include the following:

    - Schedule excavation and grading work for dry weather
    - Use as little water as possible for dust control
    - Never hose down dirty pavement or impermeable surfaces where fluids have spilled
    - Avoid excavation and grading activities during wet weather
    - Construct diversion dikes to channel runoff around the site and line channels with grass or roughened pavement to reduce the velocity of runoff
    - Install sediment filters and/or debris traps at or near entrances to the storm drain system
    - Cover stockpiles and excavated soil with tarps or plastic sheeting

    - Plant permanent vegetation as soon as possible

2. **Archaeological and Paleontological Resources.** In an unlikely event that previously unknown archaeological or paleontological resources are discovered during the construction of the North Campus project, compliance with the existing laws and requirements will reduce that impact to a less than significant level. These laws and regulations include: (1) stopping work in the event that an archaeological or paleontological resource is discovered until a qualified archeologist or paleontologist can visit the site and assess the significance of the potential resource.; (2) the archeologist or paleontologist will then conduct on-site archaeological or paleontological monitoring, including inspection of exposed surfaces to determine if archaeological resources or fossils are present, and (3) if such resources are present, the monitor will have the authority to divert grading away from exposed resources temporarily in order to recover the resources.

3. **Inadvertent Discovery of Human Remains**: In addition, in an unlikely event that containing human remains are inadvertently discovered during construction, compliance with existing laws and regulations will ensure no significant impact. These laws and regulations include: (1) ceasing construction in the vicinity of the discovery or any nearby area, and (2) immediately notifying the Los Angeles County Coroner's Office. Furthermore, if the county coroner determines that the remains are Native American, then (1) contacting the Native American Heritage Commission within 24 hours, (2) the Native American Heritage Commission will then designate a most likely descendent who may make recommendations concerning the disposition of the remains and associated grave goods in consultation, and (3) if the Native American Heritage Commission is unable to identify a most likely descendant or if the most likely descendent failed to make a recommendation within 24 hours, reburying the remains and associated grave goods on the property in a location that will not be disturbed.

Findings of Fact
and
Statement of Overriding Considerations

Pursuant to Sections 21081 and 21081.6 of the Public Resources Code and
Sections 15091 and 15093 of the CEQA Guidelines

North Campus Project

California State University, Los Angeles

CAL STATE LA

Final Environmental Impact Report
State Clearinghouse Number 2016111038

May 2017

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Findings of Fact

1.0 INTRODUCTION

1.1 Purpose

This statement of Findings of Fact addresses the environmental effects associated with the California State University, Los Angeles (Cal State LA) North Campus project located on the Cal State LA campus in Los Angeles, California. These Findings are made pursuant to the California Environmental Quality Act (CEQA) under Sections 21081 and 21081.6 of the Public Resources Code and Sections 15091 of the CEQA Guidelines, Title 14, Cal. Code Regs. 15000, et. seq. The potentially significant impacts were identified in both the Draft Environmental Impact Report (EIR) and the Final EIR, as well as additional facts found in the complete record of proceedings.

Public Resources Code 21081 and Section 15091 of the CEQA Guidelines require that the lead agency prepare written findings for identified significant impacts, accompanied by a brief explanation for the rationale for each finding. The Board of Trustees of the California State University (CSU Board of Trustees) is the lead agency responsible for preparation of the EIR in compliance with CEQA and the CEQA Guidelines. Section 15091 of the CEQA Guidelines states, in part, that:

> (a) No public agency shall approve or carry out a project for which an EIR has been certified which identifies one or more significant environmental effects of the project unless the public agency makes one or more written findings for each of those significant effects, accompanied by a brief explanation of the rationale for each finding. The possible findings are:
>
> (1) Changes or alterations have been required in, or incorporated into, the project which avoid or substantially lessen the significant environmental effect as identified in the final EIR.
>
> (2) Such changes or alterations are within the responsibility and jurisdiction of another public agency and not the agency making the finding. Such changes have been adopted by such other agency or can and should be adopted by such other agency.
>
> (3) Specific economic, legal, social, technological, or other considerations, including provision of employment opportunities for highly trained workers, make infeasible the mitigation measures or project alternatives identified in the final EIR.

In accordance with Public Resource Code 21081 and Section 15093 of the CEQA Guidelines, whenever significant impacts cannot be mitigated to a level below significance, the lead agency is required to balance, as applicable, the benefits of the proposed project against its unavoidable environmental risks when determining whether to approve the project. If the benefits of a proposed project outweigh the unavoidable adverse environmental effects, the adverse effects may be considered "acceptable." In that case, the decision-making agency may prepare and adopt a Statement of Overriding Considerations, pursuant to the CEQA Guidelines.

Section 15093 of the CEQA Guidelines states that:

a) CEQA requires the decision-making agency to balance, as applicable, the economic, legal, social, technological, or other benefits of a proposed project against its unavoidable environmental risks when determining whether to approve the project. If the specific economic, legal, social, technological, or other benefits of a proposed project outweigh the unavoidable adverse environmental effects, the adverse environmental effects may be considered "acceptable."

b) When the lead agency approves a project which will result in the occurrence of significant effects which are identified in the final EIR but are not avoided or substantially lessened, the agency shall state in writing the specific reasons to support its action based on the Final EIR and/or other information in the record. The statement of overriding considerations shall be supported by substantial evidence in the record.

c) If an agency makes a statement of overriding considerations, the statement should be included in the record of the project approval and should be mentioned in the notice of determination. This statement does not substitute for, and shall be in addition to, findings required pursuant to Section 15091. As required by CEQA, the Board of Trustees, in adopting these findings, also adopts a Mitigation Monitoring and Reporting Program for the project. The Board of Trustees finds that the Mitigation Monitoring and Reporting Program, which is incorporated by reference and made a part of these findings, meets the requirements of Section 21081.6 of the Public Resources Code by providing for the implementation and monitoring of measures intended to mitigate potentially significant effects of the project.

The Final EIR for the project identified potentially significant effects that could result from project implementation. However, the CSU Board of Trustees finds that the inclusion of certain mitigation measures as part of the project approval will reduce most, but not all, of those effects to less than significant levels. Those impacts that are not reduced to less than significant levels are identified and overridden due to specific project benefits in a Statement of Overriding Considerations.

In accordance with CEQA and the CEQA Guidelines, the Board of Trustees adopts these findings as part of its certification of the Final EIR for the project. Pursuant to Section 21082.1(c)(3) of the Public Resources Code, the Board of Trustees also finds that the Final EIR reflects the Board's independent judgment as the lead agency for the project.

1.2. Organization and Format of Findings

Section 1.0 contains a summary description of the project and background facts relative to the environmental review process. Section 2.0 discusses the CEQA finding of independent judgment. Section 3.0 identifies the impacts of the project that were studied in the EIR. Section 3.1 of these Findings identifies the significant impacts of the project that cannot be mitigated to a less than significant level, even though all feasible mitigation measures have been identified and incorporated into the project.

Section 3.2 identifies the potentially significant effects of the project that would be mitigated to a less than significant level with implementation of the identified mitigation measures. Section 3.3 identifies the project's potential environmental effects that were determined not to be significant and, therefore, do not require mitigation measures. Section 4.0 discusses the feasibility of project alternatives. Section 5.0 discusses findings with respect to mitigation of significant adverse impacts, and adoption of the Mitigation Monitoring Program (MMP).

1.3 Summary of Project Description

The North Campus project provides for new student housing facilities, new sport and recreation fields, and a parking structure within the northern portion of the California State University, Los Angeles (Cal State LA) campus. The project site is comprised of an existing sports field north of Paseo Rancho Castilla (North Field) and surface parking lots.

The student housing facilities will provide 1,500 beds for freshmen and sophomore students, as well as an associated dining facility. The student residence hall is anticipated to be a five-story building with internal courtyards, and the adjacent dining hall will be a single-story facility.

The existing North Field will be upgraded, including installation of natural grass turf, and will include an approximately 30,000 square-foot facility with sports fitness rooms, locker rooms, administrative rooms, and other amenities for players training at the field. No lighting will be provided at the field. The North Field is anticipated to be used as a practice field by a major league soccer team. As this is a training field, no spectators will be present and no bleachers are therefore provided at the fields. Small surface parking for players and staff will be provided along western edge of the fields. The existing surface parking lots immediately south across Paseo Rancho Castilla will be replaced with new sports and recreation fields. These South Fields will be used by the University students, and will support the Athletics Department programs.

The displaced surface parking will be accommodated in a new parking structure located next to the existing Parking Structure C, on the site that is currently used as a surface parking lot. The four to five-level parking structure will provide approximately 1,650 parking spaces, including up to 100 new parking spaces. The parking structure may also provide space for long-term storage of cars by University students.

1.4. Project Objectives

CEQA states that the statement of project objectives should be clearly written and define the underlying purpose of the project, in order to permit the development of a reasonable range of alternatives and aid the Lead Agency in making findings.

The primary project objectives are to:

- Enhance the provision of student housing on campus to help accommodate the strong student demand for on-campus housing
- Enhance the provision of student housing on campus since living on campus increases students' academic success and improves graduation rates
- Provide student housing at appropriate locations to create sense of place and community identity for students living on campus
- Provide needed sports facilities for University students, including students living at the existing residence halls and new residence hall adjoining these sport facilities
- Provide opportunities for students to access research, scholarship, internship, and job opportunities with a professional sports organization; opportunities to use the state-of-the-art soccer training facility by campus student athletes to advance the University's athletic and educational goals; including opportunities for additional resources to complete the development of a Sports Management degree program.

1.5. Environmental Review Process

Initial Study and Notice of Preparation: In accordance with the requirements of CEQA and the CEQA Guidelines, to determine the number, scope and extent of environmental issues, the Notice of Preparation (NOP) of the Draft Environmental Impact Report was circulated for public review for a period of 30 days, beginning on November 15, 2016 and ending on December 14, 2016. The University also held a public meeting on December 6, 2016 to receive comments on the Initial Study. No comments were received at the meeting.

Draft EIR: In accordance with the requirements of CEQA and the CEQA Guidelines, a Draft EIR was prepared to address the potential significant environmental effects associated with the North Campus project identified during the NOP process. Based on the NOP and Initial Study scoping process, the EIR addressed the following potential potentially significant environmental issues:

- Aesthetics
- Air Quality and Greenhouse Gases (GHG)
- Traffic and Circulation
- Fire and Police Protection Services
- Utilities and Service Systems,
- Cultural Resources, including Tribal Cultural Resources
- Construction Effects
- Long-term and Cumulative Effects

The Draft EIR was released for public and agency review 45-day period, from March 3, 2017 to April 17, 2017. The University also held a public meeting on March 21, 2017 on June 28, 2016 to provide the public an opportunity to comment on the adequacy of the information presented in the Draft EIR. No comments about Draft EIR were received at the meeting. During the Draft EIR public review period, the University received four comment letters, and a letter from the State Clearinghouse acknowledging compliance with its review requirements for draft environmental documents.

Final EIR: Section 15088 of the CEQA Guidelines requires that the Lead Agency responsible for the preparation of an EIR evaluate comments on environmental issues and prepare a written response addressing each of the comments. The intent of the Final EIR is to provide a forum to address comments pertaining to the information and analysis contained within the Draft EIR, and to provide an opportunity for clarifications, corrections, or minor revisions to the Draft EIR as needed.

The Final EIR assembles in one document all of the environmental information and analysis prepared for the proposed project, including comments on the Draft EIR and responses by the University to those comments.

Pursuant to Section 15132 of the State CEQA Guidelines, the Final EIR consists of the following:

(a) The revised Draft EIR, including all of its appendices.
(b) A list of persons, organizations, and public agencies commenting on the Draft EIR.
(c) Summaries of all oral comments received on Draft EIR and responses to those comments.
(c) Copies of all letters received by the University during the Draft EIR public review period and responses to the comments.
(d) Any other information added by the Lead Agency.

2.0 CEQA FINDING OF INDEPENDENT JUDGMENT

The Final EIR reflects the Board of Trustees' independent judgment. The Board of Trustees has exercised independent judgment in accordance with Public Resources Code 21082.1(c)(3) in retaining its own environmental consultant in the preparation of the EIR, as well as reviewing, analyzing and revising material prepared by the consultant.

Having received, reviewed, and considered the information in the Final EIR, as well as any and all other information in the record, the Board of Trustees of the California State University hereby makes findings pursuant to and in accordance with Sections 21081, 21081.5, and 21081.6 of the Public Resources Code.

3.0. FINDINGS OF FACT

3.1 Environmental Effects of the Project which are Considered Unavoidable Significant Impacts

This section identifies the significant unavoidable impacts that require a statement of overriding considerations to be issued by the Board of Trustees, pursuant to Section 15093 of the CEQA Guidelines, if the project is approved. Based on the analysis contained in the Final EIR, the following impacts have been determined to be significant unavoidable:

- Short-term and intermittent project-specific and cumulative peak construction day effects on air quality

Summary of Short-term Project-Specific and Cumulative Construction Impact on Air Quality

An evaluation of the short-term and intermittent construction impacts associated with the project is found in Section 3.7, Construction Effects, of the Final EIR.

The North Campus project involves phased construction of new student housing facilities, new sport and recreation fields, a parking structure, and improvements to the existing sports field will include construction of structures, grading, and other site preparation activities. All construction activities will proceed in compliance with the South Coast Air Quality Management District (SCAQMD) rules and regulations. Nonetheless, a "worst-case" peak day construction emissions, where it is assumed that some phases of construction of the new student housing facilities, new sport and recreation fields, a parking structure, and improvements to the existing sports field will overlap, the short-term project-specific and cumulative peak day construction emissions could be above the SCAQMD threshold amounts for $NO_{x.}$

Mitigation Measures

The University will implement the following mitigation measures to reduce the identified significant impact by imposing conditions on the construction contractor.

1. During high wind episodes (wind speeds exceeding a sustained rate of 25 miles per hour); grading or other high-dust generating activities will be suspended.
2. During smog alerts, all construction activities will be suspended.
3. All construction equipment will be properly tuned.
4. Diesel particulate filters are installed on diesel equipment and trucks and low sulfur diesel will be used for construction equipment.
5. Gasoline, butane, or electric power construction equipment will be used if feasible.
6. To reduce emissions from idling, the contractor shall ensure that all equipment and vehicles not in use for more than 5 minutes are turned off, whenever feasible.
7. Low VOC-content asphalt and concrete will be utilized to the extent possible.

8. All stockpiles will be covered with tarps or plastic sheeting.
9. Speeds on unpaved roads will be reduced below 15 miles per hour.
10. All haul trucks that carry contents subject to airborne dispersal will be covered.
11. All access points to the site used by haul trucks will be kept clean during site earthwork.
12. Exposed surfaces will be watered regularly as needed.
13. All access points used by haul trucks will be kept clean during earthwork.
14. Electricity from power poles rather than temporary diesel or gasoline generators will be used to the extent available.
15. As needed, campus outdoor activities in the site vicinity will be limited during high-dust and other heavy construction activities.
16. Throughout the construction period, the ventilation systems in the existing student residence halls adjacent to the project site will be tested and as needed, put on a more frequent maintenance schedule to ensure that they are functioning properly and providing proper ventilation.
17. During construction of the parking structure, disturbed areas within the construction site will be watered every 3 hours.

Furthermore, the University will continue to:

1. Include in all construction contracts the requirement to use 2010 and newer diesel haul trucks (e.g., material delivery trucks and soil import/export). In the event that that 2010 model year or newer diesel trucks cannot be obtained, provide documentation as information becomes available and use trucks that meet EPA 2007 model year NOx emissions requirements.

2. Include in all construction contracts the requirement that all off-road diesel-powered construction equipment greater than 50 hp shall meet Tier 4 off-road emission standards at a minimum. In addition, if not already supplied with a factory-equipped diesel particulate filter, all construction equipment shall be outfitted with BACT devices certified by CARB. Any emissions control device used by the contractor shall achieve emissions reductions that are no less than what could be achieved by a Level 3 diesel emissions control strategy for a similarly sized engine as defined by CARB regulations. In addition, construction equipment shall incorporate, where feasible, emissions savings technology such as hybrid drives and specific fuel economy standards. In the event that any equipment required under this mitigation measure is not available, provide documentation as information becomes available. A copy of each unit's certified tier specification, BACT documentation, and CARB or SCAQMD operating permit at the time of mobilization of each applicable unit of equipment shall be provided.

Findings

The Board of Trustees finds that even with the incorporation of the identified mitigation measures short-term project-specific and cumulative construction impact on air quality will remain significant and unavoidable.

Pursuant to Section 21081(a)(3) of the Public Resources Code, as described in the Statement of Overriding

Considerations, the Board of Trustees has determined that specific economic, legal, social, technological, or other benefits, make infeasible the alternatives identified in the EIR and the identified short-term and intermittent construction impact is thereby acceptable because of specific overriding considerations (see Statement of Overriding Considerations).

3.2 Environmental Effects Evaluated in the Final EIR Which Can Be Avoided or Substantially Lessened to Less Than Significant Levels with Implementation of the Identified Mitigation Measures

This section identifies significant adverse impacts of the project that require findings to be made pursuant to Section 21081 of the Public Resources Code and Section 15091 of the CEQA Guidelines. Based on information in the Final EIR, the Board of Trustees finds that, based upon substantial evidence in the record, adoption and implementation of the mitigation measures set forth below will reduce the identified significant impacts to less than significant levels. Based on the analysis contained in the Final EIR, the following impacts have been determined to be impacts that can be reduced to less than significant levels with implementation of the mitigation measures set forth below:

- Construction-related impacts on noise, traffic, and solid waste facilities

Construction Impacts on Noise, Traffic, and Solid Waste Facilities

Noise: Construction activities will result in a temporary increase in ambient noise levels in the vicinity of a construction site from heavy equipment, power and air tools, compressors, trucks, and from loading and unloading that will occur with varying frequency and intensity. These temporary noise levels will not be continuous but will vary as equipment is used for varying lengths of time throughout the construction period and high levels of construction noise usually are limited to the immediate vicinity of construction activities. Nonetheless, short-term and intermittent noise from construction will be audible within the adjacent area. As the closest noise sensitive uses to the project include the campus' existing student housing, LACHSA, Anna Bing Arnold Children's Center facilities, and the residential neighborhoods to the north of the campus, mitigation measures have been identified to reduce noise impact to these nearby noise-sensitive uses.

Traffic/Circulation: Construction activity will add trucks and construction equipment to streets in the area. Haul trucks and heavy equipment usually travel more slowly than other traffic on the street network and require more time to enter and exit traffic flows. When heavy equipment enters or exits a construction site, it may interrupt vehicular or pedestrian traffic. Construction activities associated with the North Campus project will involve the use of trucks, usually for short periods of time, to deliver construction materials and haul away construction debris These trucks and equipment may cause localized congestion at some locations in the surrounding area, which is a potentially significant impact if not properly mitigated. Therefore, mitigation measures have been identified to reduce these potential impacts.

Solid Waste: Construction of the North Campus project will generate construction materials waste. Even though the overall construction activities associated with the project will not involve massive construction that could generate significant amounts of solid waste, mitigation has been identified to reduce this impact.

Mitigation Measures

The University will implement the following mitigation measures to reduce identified significant impacts by imposing conditions on the construction contractor.

Noise

1. Construction hours will be consistent with the City of Los Angeles regulations, which limit the construction activity to the hours between 7:00 am and 9:00 pm Monday through Friday, and 8:00 am to 6:00 pm on Saturdays and national holidays. No construction activity will take place on Sunday.
2. Muffled construction equipment will be used whenever possible.
3. Construction staging areas will be located as far as possible from nearby uses.
4. As needed, a temporary barrier of no less than 8 feet in height made of solid wood or other similar material will be provided and placed strategically along the construction site’s boundaries to protect the nearby residential uses, the existing student residences, the Anna Bing Arnold Children’s Center, and LACHSA from construction noise.

Traffic and Circulation

1. A flag person will be employed as needed at various intersections to direct traffic when heavy construction vehicles enter the campus.
2. Construction and haul trucks will use the City of Los Angeles designated truck routes to travel to and from the site.
3. Construction-related truck traffic will be scheduled to avoid peak travel time on the I-10 and I-710 freeways, as feasible.
4. Hauling of equipment and materials and other truck trips during construction will be scheduled during non-peak hours, to the extent feasible.

Solid Waste

1. Construction inert materials, including vegetative matter, asphalt, concrete, and other recyclable materials will be recycled to the extent feasible.

Findings

The Board of Trustees finds that the above mitigation measures are feasible, are adopted, and will reduce the potential short-term noise, traffic, and solid waste construction-related impacts to less than significant levels. Accordingly, the Board of Trustees finds that, pursuant to Section 21081(a)(1) of the Public Resources Code and Section 15091(a)(1) of the CEQA Guidelines, changes or alterations have been required in, or incorporated into, the project which mitigate or avoid the potentially significant short-term and intermittent construction-related noise, traffic, and solid waste impacts as identified in the Final EIR.

Summary of Impact on Tribal Cultural Resources

There are no known cultural tribal resources within or near the project site. None of such resources have been discovered throughout the history of the campus development, including the development of the project site. While the potential for uncovering significant tribal cultural resources at the project site is considered remote, in an unlikely event that such resources are discovered during project construction, mitigation measures have been identified to reduce such impact.

Mitigation Measures

While the potential for uncovering significant tribal cultural resources at the project site is considered remote, in an unlikely event that such potential resources are discovered during project construction, the following measures will be implemented:

1. All earth moving construction activity will be halted until a qualified Native American monitor can visit the site and assess the significance of the potential resource.
2. The Native American monitor will then conduct on-site cultural tribal resources monitoring, including inspection of exposed surfaces to determine if such resources are present.
3. If such resources are present, the Native American monitor will have the authority to divert grading away from exposed resources temporarily to examine the potential significance of such resources.
4. If such resources are determined significant and the resource cannot be recovered, the resource site will be covered with a layer of chemically stable soil before constructing project facilities on the site, if feasible; or if data recovery through excavation is the only feasible mitigation, a data recovery plan, which makes provision for adequately recovering the scientifically consequential information from and about the tribal cultural resource will be prepared and adopted prior to any excavation being undertaken and implemented during excavation or grading.
5. Such significant resources will be treated with culturally appropriate dignity taking into account the tribal cultural values and meaning of the resource, including protecting the confidentiality of the resource.

Findings

The Board of Trustees finds that the above mitigation measures are feasible, are adopted, and will reduce the potential impact on tribal cultural resources, in an unlikely event that such previously unknown resources are discovered during project construction, to a less than significant level. Accordingly, the Board of Trustees finds that, pursuant to Section 21081(a)(1) of the Public Resources Code and Section 15091(a)(1) of the CEQA Guidelines, changes or alterations have been required in, or incorporated into, the project which mitigate or avoid the potentially significant impact on tribal cultural resources as identified in the Final EIR.

3.3 Environmental Effects Found to Be Less Than Significant

This section identifies impacts of the project that are less than significant and do not require mitigation measures. Based on information in the Final EIR, the Board of Trustees finds that based upon substantial evidence in the record, the following impacts have been determined be less than significant:

- Archaeological and paleontological resources
- Fire and police protection services
- Utilities and service systems

- Short-term construction effects on water quality
- Cumulative effects, other than short-term cumulative peak day construction emissions
- Growth-inducing and irreversible effects

Impact on Archaeological and Paleontological Resources

An evaluation of project's impacts on archaeological and paleontological resources is found in Section 3.6, Cultural Resources, of the Final EIR.

The project site is comprised of existing surface parking and a sports field. There are no known archaeological or paleontological resources within or near the project site. In an unlikely event that previously unknown archaeological or paleontological resources are discovered during the construction of the North Campus project, compliance with the existing laws and requirements will reduce that impact to a less than significant level. These laws and regulations include: (1) stopping work in the event that an archaeological or paleontological resource is discovered until a qualified archeologist or paleontologist can visit the site and assess the significance of the potential resource.; (2) the archeologist or paleontologist will then conduct on-site archaeological or paleontological monitoring, including inspection of exposed surfaces to determine if archaeological resources or fossils are present, and (3) if such resources are present, the monitor will have the authority to divert grading away from exposed resources temporarily in order to recover the resources.

Findings

The Board of Trustees finds that, based upon substantial evidence in the record, the potential project impact on archaeological and paleontological resources is less than significant and no mitigation measures are required.

Impact on Fire and Police Protection Services

An evaluation of project's impacts on fire and police protection services is found in Section 3.4, Fire and Police Protection Services, of the Final EIR.

Fire safety is will be incorporated in the design and construction of all project facilities, and will include consultations with the Fire Marshal and University fire officials to ensure that all requirements are met. All required fire safety features, including smoke detectors and full sprinkler systems, fire lines and hydrants with appropriate fire flows, and unobstructed fire emergency access will also be provided. All fire equipment will be maintained in accordance with State and local regulations, and will be inspected on a regular schedule and re-charged, repaired, or replaced as needed.

Before the new student housing, dining, parking and sport facilities are occupied, the University Police Department will review lighting and landscaping plans, traffic ingress/egress plans, and project plans for each facility to ensure that all requirements are incorporated. The new facilities will be incorporated into the University's security and emergency response plans to ensure appropriate emergency response. With these features, impact on fire and police services will be minimized.

Findings

The Board of Trustees finds that, based upon substantial evidence in the record, the potential the potential project impact on fire and police protection services is less than significant and no mitigation measures are required.

Impact on Utilities and Service Systems

An evaluation of project's impacts on public utilities and service system is found in Section 3.5, Utilities and Service Systems of the Final EIR.

The project includes provision of all necessary utility infrastructure connecting to the campus' existing water, sewer, and drainage utility grid which has the capacity to accommodate the project. The mandated water conservation measures, including ultra-low flow toilets, urinals, taps, water conservation plumbing; use native or drought-resistant vegetation in landscaping, and other required conservation measures will be implemented. The project facilities will also implement comprehensive waste reduction, diversion, and recycling programs that will significantly reduce the amount of waste needed disposal. With these components and payment of all legally required capital facilities fees, connections fees, and service fees impact on utilities and service systems will be minimized

Findings

The Board of Trustees finds that, based upon substantial evidence in the record, the potential the potential project impact on public utilities and service systems is less than significant and no mitigation measures are required.

Short-term Construction Related Water Quality

An evaluation of project's short-term construction-related impacts on water quality is found in Section 3.7, Construction Effects, of the Final EIR.

In compliance with existing regulations, all construction activities will implement a Storm Water

Pollution Prevention Plan (SWPPP), which includes best management practices (BMPs), such as scheduling grading during dry weather and replanting vegetation as soon as possible, and other measures.

Findings

The Board of Trustees finds that, based upon substantial evidence in the record, the potential short-term construction-related impacts on water quality is less than significant and no mitigation measures are required.

Cumulative Impacts on Traffic/Circulation, Aesthetics, Fire and Police Protection Services, and Utilities and Service Systems

An evaluation of cumulative impacts associated with the project is found in Section 5.0, Cumulative and Long-

Term Effects, of the Final EIR.

The project will have a beneficial impact on traffic and circulation, air quality and GHG, stormwater runoff, and aesthetics, and therefore, the project will not contribute to a significant cumulative impact While the provision of the North Campus project facilities together with related projects will result in an

incremental increase in demand for police and fire protection services, and public utilities and service systems, this increase will be minimized through implementation of all required comprehensive safety and security measures, provision of required utility infrastructure, and payment of all legally required capital facilities fees by the project and by the related projects as requires by their jurisdictions. Therefore cumulative impact will be less than significant.

Findings

The Board of Trustees finds that, based upon substantial evidence in the record, the potential cumulative effects of the project are less than significant and no mitigation measures are required.

Growth-inducing and Irreversible Effects

An evaluation of growth-inducing and irreversible effects associated with the project is found in Section 5.0, Cumulative and Long-Term Effects, of the Final EIR.

The North Campus project provides for additional student housing, practice sport and recreation fields, improved soccer field with a training facility, and a parking structure replacing existing surface parking on campus. The project does not provide housing for residents of the city or the surrounding areas that could induce population growth, and will not result in an increase in student enrollment at Cal State LA campus. The project includes all necessary improvements to the existing infrastructure, and no excess capacity that could induce growth will be provided.

Implementation of the North Campus project will commit non-renewable resources during construction and operation. During construction, the use of building materials (e.g., aggregate, sand, cement, steel, etc.) and energy resources (e.g., gasoline, diesel fuel, electricity) largely would be irreversible and irretrievable. Energy will be consumed in processing building materials and for transporting these materials and construction workers to the project site. The project facilities can be expected to have a life span of approximately 50 years. Resources consumed during construction of the project, (such as fuel and building materials) will be used in quantities proportional to similar development in Southern California. Resources consumed for this project are comparable to the use of resources for student housing, sport fields, and parking facilities at other major universities and colleges throughout the Southern California region and the country, and are not considered a wasteful use of resources.

Findings

The Board of Trustees finds that, based upon substantial evidence in the record, the potential growth-inducing and irreversible effects of the project are less than significant and no mitigation measures are required.

3.3.2 Environmental Effects Determined Not to be Significant in the NOP Scoping Process

and Not Discussed in the EIR

Section 15128 of the CEQA Guidelines requires an EIR to contain a statement briefly indicating the reasons that various possible significant effects of a project were determined not to be significant and were, therefore, not discussed in detail in the EIR. The Executive Summary and Appendix A of the Final EIR addresses the

potential environmental effects that have been found not to be significant as a result of the Initial Study analysis completed as part of the Notice of Preparation (NOP) process, the NOP public review process, and the responses to the NOP. Based on the NOP process, the project was determined to result in either no impact, or a less than significant impact without the implementation of mitigation measures on the following resources, and were therefore, not discussed in detail in the EIR:

- Agriculture and forestry resources
- Biological resources
- Geology and soils
- Hazards and hazardous materials
- Hydrology/water quality
- Land use and planning
- Mineral resources
- Noise
- Population and housing
- Recreation

3.4 Environmental Impacts Found to be Beneficial

The Final EIR identifies the following project-specific and cumulative effects of the North Campus project that are beneficial:

- Reducing commute trips and vehicle miles traveled (VMTs): The project will result in a net reduction of approximately 25,801 VMTs per day and 1,736 daily commute trips, due to the provision of additional 1,500 beds in the project's student housing facilities.

- Reducing peak hour trips on the roadway network serving the campus: The project will reduce student commute trips and VMTs which will have a beneficial effect of reducing vehicular travel on the roadway system surrounding the project site. Overall, the project will reduce the morning peak hour trips by 134 trips, and the afternoon peak hour trips by 115 trips.

- Reducing vehicular air pollutant emissions and greenhouse gases (GHG): Provision of student housing at North Campus will reduce student commute trips, resulting in a reduction of approximately 242 metric tons of GHG, net reduction in NOx, PM_{10} and $PM_{2.5}$ emissions, and a substantial reduction in CO and ROG emissions.

- Improving the overall visual character of the North Campus area: The student housing and South Fields sport and recreation fields will replace existing surface parking lots resulting in an improved visual character of the north campus area that complements and is compatible with the existing student housing clustered immediately west of the proposed new sport and recreation fields. Merging the new student housing with the existing student residence halls will create a larger campus residential community that includes housing, dining, and recreation. It will also create a visual character and an overall image representing the student residential community. Variations in height between the existing two to three-story student residence halls and the project's five-story residence halls together with variations in architectural styles, and provision of open space in form of

new sport and recreation fields will provide visual articulation and enrich the visual character and image of this greater student community within the north campus area, and improve the overall visual character of the site.

- Reducing stormwater runoff: The project's provision of new sport and recreation fields and an improved soccer field will result in a beneficial effect of replacing existing impervious surface parking with pervious surfaces that will reduce stormwater runoff from the project site.

Findings

The Board of Trustees finds that, based upon substantial evidence in the record, the potential effects of the North Campus project on reducing vehicle miles traveled (VMTs), reducing peak hour vehicular trips, reducing vehicular air pollutant emissions and greenhouse gases (GHG), improving the overall visual character of the north campus area, and reducing stormwater runoff from the site are beneficial and no mitigation measures are required.

4.0 Findings Regarding Considerations That Make Alternatives Analyzed In the Final EIR Infeasible

The analysis of alternatives to the project is found in Section 4.0 of the Final EIR. Based on the analysis and the entire record, the Board of Trustees finds as follows:

Alternative 1: "No Project"

The No Project alternative, required to be evaluated in the EIR, considers "existing conditions…as well as what would be reasonably expected to occur in the foreseeable future if the project were not approved, based on current plans and consistent with available infrastructure and community services" [CEQA Guidelines Section 15126.6(e)(2)]. Pursuant to this alternative the project site would remain in its current condition and would continue its current use as surface parking lots and a vacant sports field north of Paseo Rancho Castilla (North Field). This alternative would not achieve any of the project's primary objectives. The Board of Trustees therefore finds this alternative infeasible.

Alternative 2: Smaller Project

The North Campus project will provide student housing with 1,500 beds. Pursuant to this alternative, the student housing facility would only provide 750 beds. As with the project, all other project components, including an associated dining facility, new sport and recreation fields, improved North Field practice soccer field with a training facility, and a parking structure would also be developed on the project site.

A new student residence hall would be constructed on the site at the same location as planned for the project. With half of the project's beds, the buildings would be two to three-story, and as with the project, the change from the surface parking to a visually attractive student residential community would improve the visual character of the site. As with the project, lighting effects associated with new South Fields sport and recreation fields would be less than significant.

The construction of new facilities under this alternative would generate short-term and intermittent air pollutant emissions. With only half of the student beds provided under this alternative, the project-specific peak construction day emissions of NOx under this alternative would likely not exceed the SCAQMD threshold for the peak day construction NOx emissions, but would still result in a significant construction-related cumulative impact on air quality.

Therefore, providing only 750 student beds, while reducing the project-specific peak day construction air quality construction significant impact, would not avoid nor substantially reduce the project's potentially significant cumulative impact associated with peak day construction emissions. Also, the provision of half of the needed student beds pursuant to this alternative would substantially reduce the project's beneficial long term impacts on air quality, greenhouse gas (GHG), traffic, and circulation resulting from a reduction daily student commute trips and the associated vehicular emissions. Furthermore, this alternative would only partially achieve primary project objectives of enhancing the provision of student housing on campus to help accommodate the strong student demand for on-campus housing; enhancing the provision of student housing since living on campus increases students' academic success and improves graduation rates, and providing student housing at appropriate locations to create a sense of place and an overall identity representing the student residential community on campus. Furthermore, with providing half of the needed student housing, this alternative would also result in the need to construct additional student housing on campus later on, which would result in additional peak day construction emissions occurring later in time. Therefore, overall, this alternative is considered environmentally inferior to the project and the Board of Trustees therefore finds this alternative infeasible.

Alternative 3: Additional Student Housing

This alternative considers providing additional student housing at the North Campus project site to accommodate 2,500 students. With a high demand for on campus housing for freshmen and sophomore students, the need for additional student housing on campus has been acute. As with the project, all other project components, including an associated dining facility, new sport and recreation fields, improved North Field practice soccer field with a training facility, and a parking structure would also be developed on the project site.

Pursuant to this alternative, the new student housing facilities would be five to ten story tall. With more student housing at the site, a larger campus student residential community that includes housing, dining, and recreation, would be created. It would also create a more defined visual character and a stronger overall image representing the student residential community merging with the adjoining existing student residence halls immediately to the west. As with the project, the change from the surface parking to a visually attractive student residential community would improve the visual character of the site. As with the project, lighting effects associated with new South Fields sport and recreation fields would be less than significant.

The construction of new facilities under this alternative would proceed over time in phases and each phase would generate short-term and intermittent air pollutant emissions from construction activities. As with project, the peak construction day emissions of NOx under this alternative may exceed the SCAQMD threshold, resulting in a significant impact.

As with the project, students living in the new student residences would not be allowed to have cars. Thus the provision of more on-campus student housing under this alternative would further reduce student commute trips by 2,591 daily trips, or nearly 50% more than the project, resulting in a greater beneficial impact on the roadway system serving the campus. This alternative would increase the reduction in vehicle miles traveled (VMTs) to 38,891 VMTs per day, compared with the project's VMTs reduction of 25,801 VMTs per day. With a greater reduction in VMTs, the magnitude of the beneficial impact of reducing vehicular emissions of air pollutants and GHG within the South Coast Air Basin would be significantly greater. With more students living on campus instead of commuting would also eliminate more peak hour trips on the street and roadway network serving the campus, substantially increasing the magnitude of this beneficial effect on traffic and circulation. As with the project, the new facilities on the site would be connected to the campus' utility grid that has the capacity to serve additional facilities. The fire and police protection services for the campus would also serve the North Campus additional student housing facilities within the site.

Therefore, providing additional student housing as part of the North Campus project would not increase the project's significant impacts or result in new significant impacts. However, providing additional on campus student housing would substantially increase the beneficial impacts of reducing student commute trips, vehicle miles travelled, and the associated air pollutant and GHG emissions. Furthermore, this alternative would achieve to a much greater extent all of the primary project objectives of enhancing the provision of student housing on campus to help accommodate the strong student demand for on-campus housing; enhancing the provision of student housing on campus since living on campus increases students' academic success and improves graduation rates; providing student housing at appropriate locations to create a sense of place and an overall identity representing the student residential community on campus; and providing needed sport and recreation facilities for University students, including students living on campus.

However, since funding for additional student housing is not in place, this alternative may not be fiscally viable at this time and therefore, the Board of Trustees finds this alternative infeasible.

5.0 Findings With Respect to Mitigation of Significant Adverse Impacts, and Adoption of Mitigation Monitoring Program

Based on the entire record before the Board of Trustees, and having considered the unavoidable significant impacts of the project, the Board of Trustees hereby determines that all feasible mitigation within the responsibility and jurisdiction of the University has been adopted to reduce or avoid the potentially impacts identified in the Final EIR, and that no additional feasible mitigation is available to further reduce significant impacts. The feasible mitigation measures are discussed in Section 3.1 and 3.2, above, and are set forth in the Mitigation Monitoring Program.

Section 21081.6 of the Public Resources Code requires the Board of Trustees to adopt a monitoring or compliance program regarding the changes in the project and mitigation measures imposed to lessen or avoid significant effects on the environment. The Mitigation Monitoring Program for the North Campus project is hereby adopted by the Board of Trustees because it fulfills the CEQA mitigation monitoring requirements:

- The Mitigation Monitoring Program is designed to ensure compliance with the changes in the project and mitigation measures imposed on the project during project implementation; and
- Measures to mitigate or avoid significant effects on the environment are fully enforceable through conditions of approval, permit conditions, agreements, or other measures.

STATEMENT OF OVERRIDING CONSIDERATIONS

CEQA requires the decision-making agency to balance, as applicable, the economic, legal, social, technological or other benefits of the project against its unavoidable environmental risks when determining whether to approve the project. If the specific economic, legal, social, technological or other benefits of the project outweigh the unavoidable adverse environmental effects, those effects may be considered "acceptable" (CEQA Guidelines 15093(a)). CEQA requires the agency to state, in writing, the specific reasons for considering a project acceptable when significant impacts are not avoided or substantially lessened. Those reasons must be based on substantial evidence in the Final EIR or elsewhere in the administrative record (CEQA Guidelines 15093(b)).

In accordance with the requirements of CEQA and the CEQA Guidelines, the Board of Trustees finds that the mitigation measures identified in the Final EIR and the Mitigation Monitoring Program, when implemented, will avoid or substantially lessen many of the significant effects identified in the Final EIR for the California State University Los Angeles North Campus project. However, certain significant impacts of the project are unavoidable even after incorporation of all feasible mitigation measures. These significant unavoidable impacts are short-term and intermittent project-specific and cumulative air quality impacts associated with the peak construction day of the project. The Final EIR provides detailed information regarding these impacts.

The Board of Trustees finds that all feasible mitigation measures identified in the Final EIR within the purview of the University will be implemented with the project, and that the remaining significant unavoidable effects are outweighed and are found to be acceptable due to the following specific overriding economic, legal, social, technological, or other benefits based upon the facts set forth above, the Final EIR, and the record, as follows:

1. Enhance the provision of student housing on campus to help accommodate the strong student demand for on-campus housing

2. Enhance the provision of student housing on campus since living on campus increases students' academic success and improves graduation rates

3. Provide student housing at appropriate locations to create a sense of place and an overall identity representing the student residential community on campus

4. Provide needed sport and recreation facilities for University students, including students living on campus

5. Provide opportunities for students to access research, scholarship, internship, and job opportunities with a professional sports organization; opportunities to use the state-of-the-

art soccer training facility by campus student athletes to advance the University’s athletic and educational goals; and opportunities for additional resources to support University programs, including the development of a Sports Management degree program

6. Reducing commuter trips and vehicle miles traveled (VMTs)
7. Reducing vehicular air pollutant emissions and greenhouse gases (GHG)
8. Reducing peak hour trips on the roadway network serving the campus
9. Improving overall visual character of the site
10. Replacing existing impervious surface parking with pervious surfaces that will reduce stormwater runoff from the project site

Considering all factors, the Board of Trustees finds that there are specific economic, legal, social, technological and other considerations associated with the project that outweigh the project's significant unavoidable effects, and these adverse effects are therefore considered acceptable.