State Clearinghouse Number 2003061012

2012 Facilities Master Plan
El Camino College

Draft Subsequent EIR to
Final Program EIR (SCH 2003061012)
Volume 1 of 2

EL CAMINO COMMUNITY COLLEGE DISTRICT
Facilities Planning and Services
Torrance, California

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May 2013

DRAFT SUBSEQUENT EIR
TO FINAL PROGRAM EIR (SCH 2003061012)

2012 FACLITITIES MASTER PLAN
EL CAMINO COLELGE
SCH 2003061012

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1.0 INTRODUCTION AND SUMMARY

This Subsequent Environmental Impact Report has been prepared in conformance with the *Guidelines for Implementation of the California Environmental Quality Act (CEQA), Section 15163* published by the Resources Agency of the State of California (California Administrative Code Section 15000 et seq.) and in conformance with policies and procedures of El Camino College for environmental evaluations. This document fulfills the requirements of Section 21080.09 of the *Public Resources Code* and of Section 15163 of the *CEQA Guidelines.*

This document is a Subsequent EIR since new potential adverse project impacts not previously evaluated in prior CEQA documents (Certified Final EIRs) may occur with implementation of the *2012 Facilities Master Plan El Camino College (2012 FMP).* The changes in the 2012 FMP include but are not limited to changes in assignable square footage (ASF) of planned facilities, the addition of a third level to the Lot F Channel Parking Structure with solar panels and demolition of five additional buildings not previously evaluated in the 2003 Final EIR (2003061012).

The prior 2003 Facilities *Master Plan was* evaluated in Final Program EIR (SCH 2003061012) that was certified in December 2003. Since one or more new effects may occur with the proposed program, or regulatory and legislative changes may have occurred since 2003, a Subsequent EIR is being prepared. The SEIR will address only those issues needed to make the prior 2003 CEQA documentation adequate for the revised project. A traffic, air quality, greenhouse gas, seismic assessment and historic resource evaluations will be prepared for the Draft EIR.

Buildout of the 2012 Facilities Master Plan is based on lower student enrollment projections (FTES), less trips generated and similar total assignable square footage (ASF) to that evaluated in the 2003 Facilities Master Plan. The buildout of the project remains in 2020.

1.1 INTRODUCTION

The proposed project is located in unincorporated County of Los Angeles and the City of Torrance west of Crenshaw Boulevard and south of Manhattan Beach Boulevard. Regional access is obtained from Interstate 405 with access from Crenshaw Boulevard, Prairie Avenue or Hawthorne Boulevard (SR 107).

The 126-acre campus is located immediately east of the Alondra Park Golf Course and the Dominquez Channel. The Lot F Channel Parking Structure is located over the channel. El Camino Village is located immediately north of the campus.

The District serves eight cities and one unincorporated areas in Los Angeles County. Forty-nine (49) percent of the students reside within the District. The District also operates ECC Compton Educational Center, the ECC Business Training Center in Hawthorne and the ECC Inglewood Center. The Draft EIR will evaluate the 2012 Facilities Master Plan (2012 FMP) for the El Camino campus only. The District passed a Measure E Bond ($395 million) in November 2002 and Measure E Bond ($350 million) titled ECC Improvements/Transfer/Job Training Measure) in November 2012 to fund its facilities program.

The 2011-2012 student enrollments of 18,224 FTES (full-time equivalent students) is based on 285,901 Weekly Student Contact Hours (WSCH) for the El Camino campus. The existing facilities at El Camino College total 819,740 ASF (assignable square footage) or 1,314,600 OGFT (overall gross square footage).

The District's Facilities Planning and Services Division (FPS) projects the campus will have a student enrollment of 20,025 FTES in 2020. The FPS completed the 2012 FMP to accommodate the projected future enrollment, to modify prior Master Plan Updates for the projected facility needs, and to address new planning elements not previously included in the *2003* Facilities Master Plan.

Table 1.1.1
Project Statistics

Year	WSCH[1]	Actual FTES[2]	Adjusted WSCH[3]	Conversion Factor[4]	Adjusted FTES[5]	On-Campus ADT[6]
2011-2012	285,901	18,224	257,311	15.69	16,400	19,680
2015-2016	312,441	--	281,197	15.69	17,922	21,506
2020-2021	349,107	--	314,196	15.69	20,025	24,030
Increase	63,206		56,885		3,625	4,350

1 FUSION data from Tom Brown 8/7/12.
2 FTES Goal and Actual -2012-2013, Board Packet 8/20/12 from Joann Higdon.
3 On Campus WSCH (90%) from Comprehensive Master Plan 2012-2017, p.104.
4 Derived from 2011-2012 WSCH/Actual FTES= Conversion Factor
5 Adjusted WSCH/Conversion Factor = On-Campus FTES
6 Adjusted FTES x 1.20 trips per FTES (ITE Trip Generation Manual, 8th Edition, 2008).

Table 1.1.2
Project Buildout

Scenario	Development (OGSF)	Development (ASF)[2]
Existing Conditions (2011-2012)	1,264,916	+819,740
New Construction:	695,356	+412,537
Building Demolitions:	645,672	-377,816
Total at Buildout in 2020	1,314,600[1]	+854,461
Increase in 2020:	+49,684	+34,721

1 Facilities Planning and Services, August 2012, OGSF based on 65 percent efficiency.
2 Figure 19: Total Building Requirements – Year 2020, HMC Architects.

The 2012 Facilities Master Plan *(FMP)* identifies the proposed new buildings and renovations on campus. The potential environmental impacts of student enrollment increases and a net increase of 34,721 ASF from existing conditions to buildout will be evaluated in the current CEQA documentation. The project also includes rehabilitation of the Lot F Channel Parking Structure and an addition of approximately 700 spaces to the existing parking structure by adding a third level. Solar panels will be added above the third level for generation of electricity.

Nine new buildings will be constructed in the 2012 FMP and six buildings will be renovated. Thirteen existing buildings will be demolished. The 2003 El Camino Facilities Master Plan Final Program EIR (SCH 2003061012) evaluated some, but not all of the buildings involved in the 2012 FMP. New construction will total 412,537 ASF and demolitions will be 377,816 ASF, resulting in a net increase of 34,721 ASF.

The college prepared the 2012 FMP to revise projects and locations in the 2003 Facilities Master Plan, to complete projects previously un-funded and not constructed, to respond to the most recent enrollment projections issued by the California Community College Chancellor's Office for the campus, and to include several new projects.

Exhibit 1
District Location

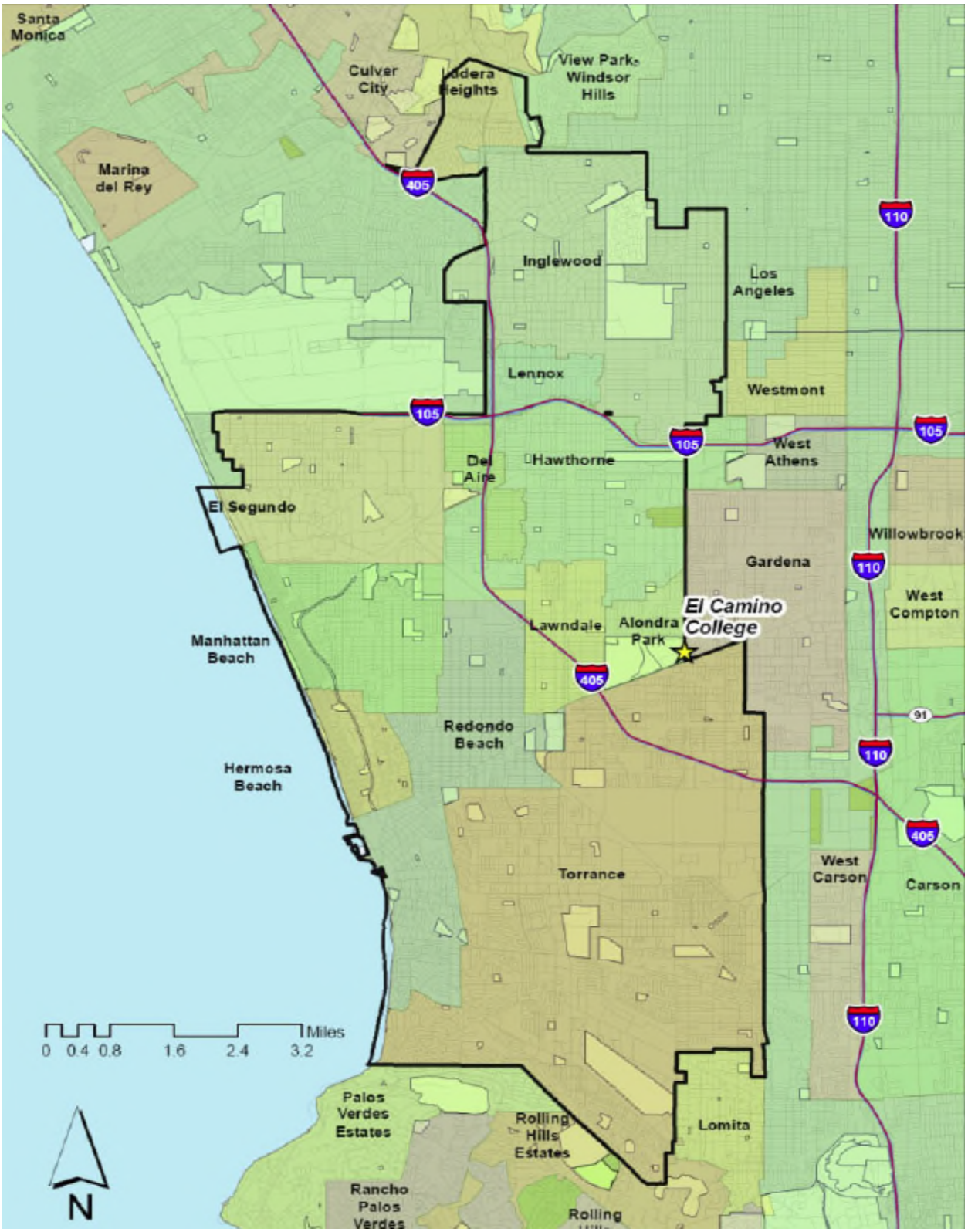

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Exhibit 2
Campus Aerial

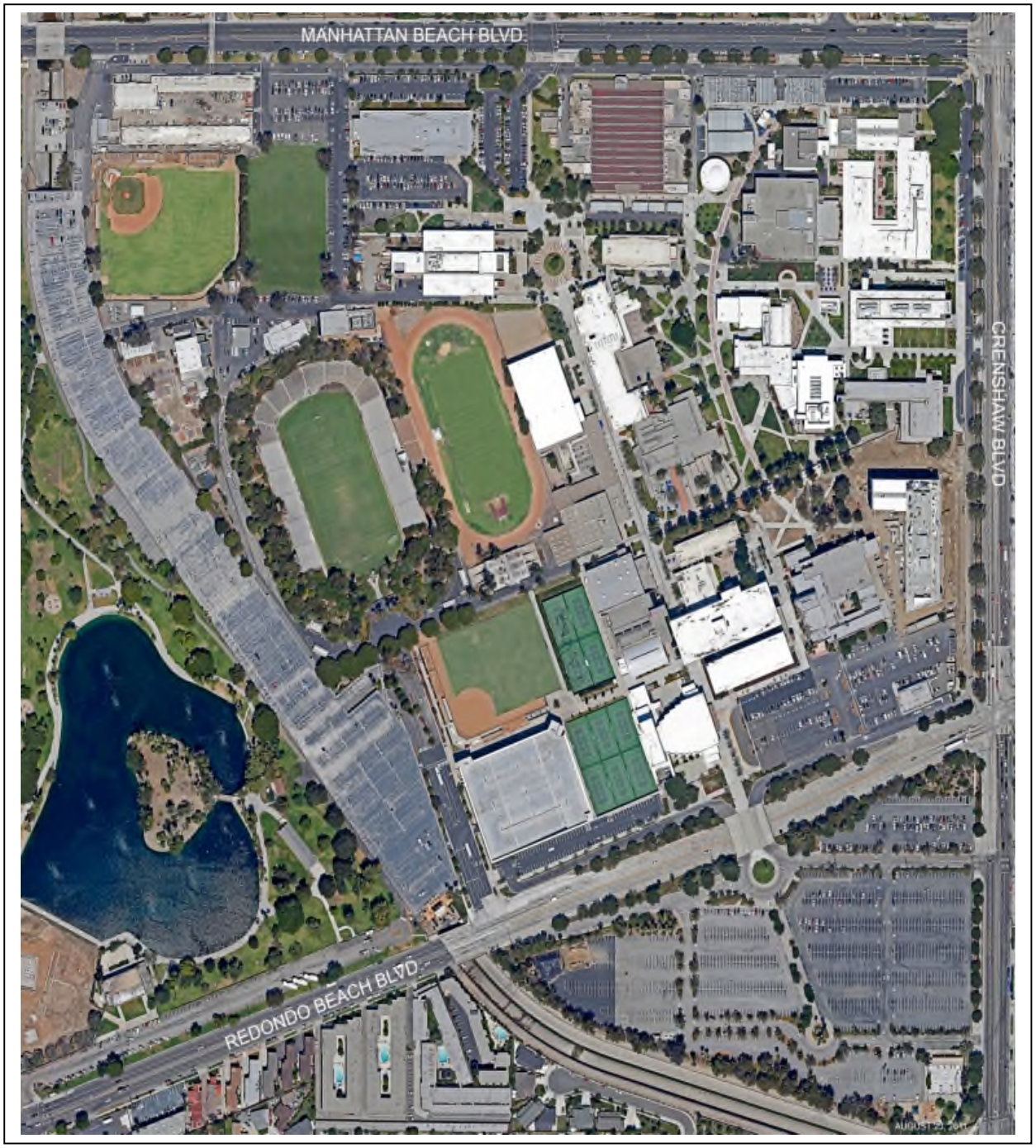

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Exhibit 3
2012 Facilities Master Plan

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The 2012 Facilities Master Plan *(FMP)* identifies the proposed new buildings and renovations on campus. The potential environmental impacts of student enrollment increases and a net increase of 34,721 ASF from existing conditions to buildout will be evaluated in the current CEQA documentation. The project also includes rehabilitation of the Lot F Channel Parking Structure and an addition of approximately 700 spaces to the existing parking structure by adding a third level. An additional 700 to 800 spaces are planned in the Lot C Parking Structure.

Nine new buildings will be constructed in the 2012 FMP and six buildings will be renovated. Thirteen existing buildings will be demolished. The 2003 El Camino Facilities Master Plan Final Program EIR (SCH 2003061012) evaluated some, but not all of the buildings involved in the 2012 FMP. New construction will total 412,537 ASF and demolitions will be 377,816 ASF, resulting in a net increase of 34,721 ASF.

While the 2003 Facilities Master Plan was prepared to accommodate an enrollment of 25,000 FTES in 2020, the 2012 Facilities Master Plan will 20,025 FTES. Since 2003, the college has constructed Humanities (52,101 ASF), the Lot H Parking Structure (1,225 spaces), the Electrical Substation and the Central Plant. The program has also renovated Natural Science (21,520 ASF), Life Sciences (9,158 ASF), Social Science (22,825 ASF) and the Learning Resources Center (21,424 sq. ft.).

The Math Business and Allied Health Building are under construction (August 2012). Buildings which have been submitted to the Department of State Architects (DSA) are Industrial & Technology, STEM Center, Shops, and Murdock Stadium.

The existing facilities on campus are shown in the following exhibit.

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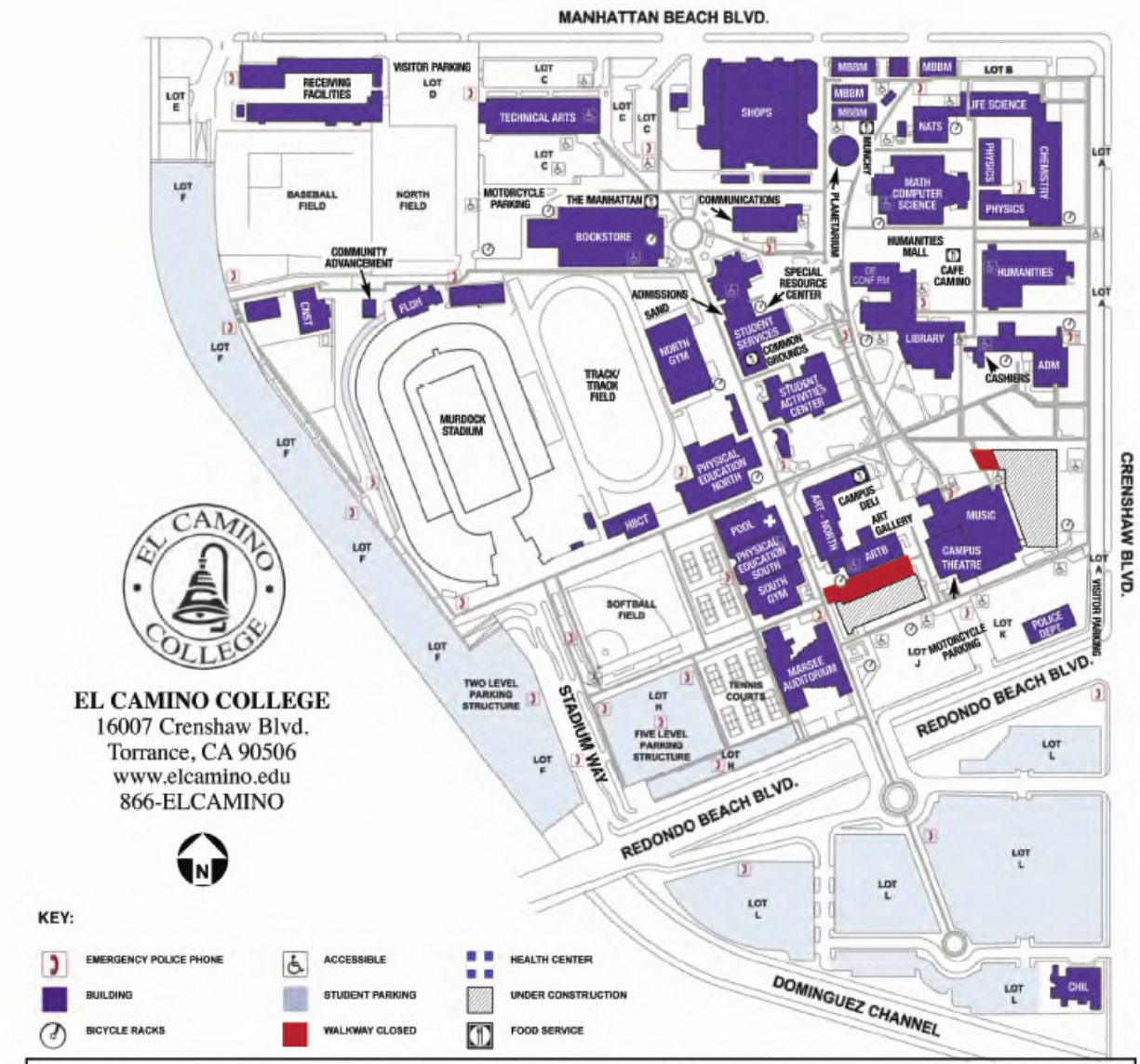
Exhibit 4
2012 Campus Directory



EL CAMINO COLLEGE

BUILDING / LOCATION	ABBREVIATION	BUILDING / LOCATION	ABBREVIATION
ADMINISTRATION	ADM	MURDOCK STADIUM	STAD
ART AND BEHAVIORAL SCIENCE	ARTB	MUSIC	MUSI
ART BUILDING - NORTH	ARTN	NATURAL SCIENCE	NATS
BASEBALL FIELD	BBFL	NORTH FIELD	NFLD
BOOKSTORE	BKST	NORTH GYM	NGYM
BUSINESS	BUSI	PHYSICAL EDUCATION NORTH	PE-N
POLICE DEPARTMENT	ECPD	PHYSICAL EDUCATION SOUTH	PE-S
CAMPUS THEATRE	TH	PHYSICS	PHYS
CHEMISTRY	CHEM	PLANETARIUM	PLAN
CHERRY TREE OFFICES	CTO	POOL	POOL
CHILD DEVELOPMENT CENTER	CHIL	SAND COURTS	SAND
COMMUNICATIONS	COMM	SHOPS	SHOP
COMMUNITY ADVANCEMENT OFFICE	CADV	SOFTBALL FIELD	SBFL
CONSTRUCTION TECHNOLOGY	CNST	SOCIAL SCIENCE	SOCS
FIELDHOUSE	FLDH	SOUTH GYM	SGYM
HANDBALL COURTS	HBCT	SPECIAL RESOURCE CENTER	SRC
HUMANITIES	H	STUDENT ACTIVITIES CENTER	ACTC
SCHAUERMAN LIBRARY	LIB	STUDENT SERVICES CENTER	SSVC
LIFE SCIENCE	LS	TECHNICAL ARTS	TECH
MANHATTAN BEACH BLVD. MODULES	MBBM	TENNIS COURTS	TENN
MARSEE AUDITORIUM	AUD	TRACK/TRACK FIELD	TRAK/TRFL
MATH / COMPUTER SCIENCE	MCS	YARD	YARD

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Any private or public project approved in the State of California that may have an adverse impact on the physical environment is subject to the *California Environmental Quality Act (CEQA)*. Therefore, this environmental evaluation addresses the potential impacts of implementation of the 2012 FMP that were not adequately addressed in the prior Certified Final EIRs (SCH 2003061012).

The environmental analysis addresses the project at the level of detail characteristic of a conceptual master plan. The El Camino Community College District is the Lead Agency responsible for the preparation of environmental documentation in compliance with CEQA, and has the responsibility for approval or denial of the project. This Subsequent Program EIR (SEIR) addresses the environmental concerns identified in the Notice of Preparation process, from public comments, and from professional evaluation by the project team.

The initial potential areas of controversy include staging of construction within the existing Lot F Channel Parking Structure and maintaining adequate parking on campus during construction.

The EIR evaluates four project alternatives, including the no-project alternative (Alternative 1) that assumes that the existing facilities are not changed. Since the college is an existing facility with an established service area, no alternative site is evaluated. Alternative 2 proposes cost reductions by delaying three projects and Alternative 3 proposes renovation of six additional buildings. Alternative 4 assumes the third level on the Lot F Parking Structure is not built.

All of the documents referenced in this report are available for public review at El Camino College, Facilities Planning and Services, at 3400 Manhattan Beach Boulevard, Torrance, California 90506. For an appointment, please call Teresa Coulter (310) 660-3593, Extension 3015 or send an e-mail request to tcoulter@elcamino.edu.

1.2 ISSUES TO BE RESOLVED

During the initial consultation process and preparation of the SEIR, the issues requiring resolution include (1) Defining the design standards and development program for the Lot F Channel Parking Structure, (2) Providing adequate campus parking during construction of the third-level to the Lot F Channel Parking Structure and, (3) Providing safe pedestrian passage on campus during construction. These issues are discussed in Section 3.2 and Section 3.5.

Buildout of the 2012 and 2003 Facilities Master Plans is based on similar student enrollment projections for 2020 (i.e. 20,000 FTES). However, the 2012 Facilities Master Plan will generate fewer vehicular trips (18,475 ADT) and more added square footage at buildout (23,380 ASF) compared to buildout of the 2003 Facilities Master Plan.

1.3 SUMMARY OF IMPACTS

Table 1.3.1 summarizing potential project impacts, recommended mitigation measures, and the level of significance with mitigation for each new or revised potential significant project impact associated with implementation of the 2012 FMP. A complete listing of all mitigation measures and a discussion of project impacts are also included in the topical sections of this report.

The Mitigation Monitoring Program adopted with the Final EIR (SCH 2002041161) for the 2003 Facilities Master Plan, with revisions and additions due to the 2012 Facilities Master Plan, is included in Appendix J.

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Table 1.3.1

Summary of Impacts (New Impacts Due to 2012 FMP Only and Evaluated in this SEIR)

See Appendix J for the complete Mitigation Monitoring Program and Section 3.13 for issues adequately evaluated in the prior Final EIR

Project Impacts	Mitigation Measures	Level of Significance With Mitigation Incorporated
1. LAND USE		
1.a. Future development may not be consistent with the approved 2012 Facilities Master Plan.	1.b. All future land uses on campus, building locations and square footage (ASF) shall be substantially consistent with the 2012 Facilities Master Plan. Facilities Planning and Services shall monitor compliance.	1.c. Less than Significant with Mitigation Incorporated.
2. TRAFFIC		
2.a. Construction activities may result in public safety impacts for pedestrians, vehicles or the public.	2.b. Contractors shall submit traffic handling plans to Facilities Planning and Services and to the Campus Police Department prior to commencement of demolition or grading. The plans and documents shall comply with the *Work Area Traffic Control Handbook (WATCH)*. Facilities Planning and Services shall approve the final plans and monitor compliance.	2.c. Less than Significant with Mitigation Incorporated.
2.d. Construction activities may result in endangering pedestrians.	2.e. Demolition and construction contracts shall include plans for temporary sidewalk closures, pedestrian safety on adjacent sidewalks, and vehicle and pedestrian safety along the project perimeter, along construction equipment haul routes on campus and near onsite construction parking areas. These plans shall be reviewed by the Campus Police Department and approved by Facilities Planning and Services. Facilities Planning and Services shall monitor compliance.	2.f. Less than Significant with Mitigation Incorporated.

2.g. Movement of construction vehicles may endanger pedestrians or represent conflicts with vehicles on or near campus construction sites.	2.h. Construction contractors shall post a flag person at locations near a construction site during major truck hauling activities to protect pedestrians from conflicts with heavy equipment entering or leaving the project site. Facilities Planning and Services shall monitor compliance.	2.i. Less than Significant with Mitigation Incorporated.
2.j. Stored construction equipment may result in burglary or damage, or hazards for pedestrians if the site isn't secure.	2.k. Each project construction site shall be adequately barricaded with temporary fencing to secure construction equipment, minimize trespassing, vandalism, short-cut attractions, and reduce hazards during demolition and construction. Facilities Planning and Services shall monitor compliance.	2.l. Less than Significant with Mitigation Incorporated.
2.m. Campus access points may result in vehicular damage or pedestrian injury if sight distance is not adequate.	2.n. The sight distance at each project access on campus shall be reviewed with respect to California Department of Transportation standards in conjunction with the preparation of the landscape and street improvement plans. Facilities Planning and Services shall monitor compliance	2.o. Less than Significant with Mitigation Incorporated
2.p. Construction activities will alter on campus travel patterns that may result in danger to pedestrians or damage to vehicles.	2.q. The college shall implement onsite traffic signing and striping in conjunction with detailed construction plans for the project. Facilities Planning and Services shall monitor compliance.	2.r. Less than Significant with Mitigation Incorporated
2.s. Increased student enrollment results in increase trips, which reduces the level of service at area intersections.	2.t. The college shall implement the Transportation Demand Management mitigation measures required by the County of Los Angeles for projects of 100,000 or more square feet of floor space. Facilities Planning and Services shall monitor compliance.	2.u. Less than Significant with Mitigation Incorporated
2.w. Lane improvements are required at the locations cited to reduce significant traffic impacts.	2.x. Prior to 2020 the California Department of Transportation shall implement the lane improvements at the Interstate 405 SB Ramps	2.y. Less than Significant with Mitigation Incorporated

	with Redondo Beach Boulevard intersection 182nd Street identified in Table 9 of the traffic study. The college shall contribute its fair share cost for these improvements (less any offsets from gas tax funds for roadway improvements). The Department of Transportation shall monitor compliance.	
2.z. Lane improvements are required at the locations cited to reduce significant traffic impacts.	2.aa. Prior to 2020, the County of Los Angeles shall implement the lane improvements at the Prairie Avenue/Redondo Beach Boulevard and Crenshaw Boulevard/Manhattan Beach Boulevard intersections identified in Table 9 of the traffic study through their *Capital Improvement Program*. The college shall contribute its fair share cost for these improvements (less any offsets from gas tax funds for roadway improvements). The Public Works Department of the County of Los Angeles shall monitor compliance.	2.bb. Less than Significant with Mitigation Incorporated
2.cc. Lane improvements are required at the locations cited to reduce significant traffic impacts.	2.dd. Prior to 2020 the City of Torrance shall implement the lane improvements at the Crenshaw Boulevard/Redondo Beach Boulevard, Crenshaw Boulevard/Artesia Boulevard and Crenshaw Boulevard/182nd Street intersection identified in Table 9 of the traffic study through their *Capital Improvement Program*. The college shall contribute its fair share cost for these improvements (less any offsets from gas tax funds for roadway improvements). The Engineering Department of the City of Torrance shall monitor compliance.	2.ee. Less than Significant with Mitigation Incorporated

2.ff. Truck hauling activities during peak hours may increase area congestion and reduce levels of service.	2.gg. The college shall consult with the effected Cities on a Truck Route Plan for all major earth hauling activities with more than eighty (80) trucks per day. Hauling of earth materials shall only occur between 9:00 am and 2:00 pm Monday through Friday and between 8:00 am to 5:00 pm on Saturdays to avoid peak hour traffic. Light duty trucks with a weight of no more than 8,500 pounds are exempted from this restriction. Facilities Planning and Services shall ensure compliance.	2.hh. Less than Significant with Mitigation Incorporated
2.ii. Public safety may be compromised if circulation improvements (e.g. restricted turn movements, improved traffic signal, clear access points) are not available.	2.jj. The college shall implement the proposed onsite circulation recommendations included in Figure 29 of the traffic study concurrent with adjacent development on campus. Facilities Planning and Services shall monitor compliance.	2.kk. Less than Significant with Mitigation Incorporated
2ll. Lane improvements are required at the locations cited to reduce significant traffic impacts.	2mm. Prior to 2020 the College shall implement the lane improvements at the El Camino College NW Entrance/Manhattan Beach Boulevard intersection identified in Table 9 of the traffic study. The Public Works Department of the County of Los Angeles shall monitor compliance.	2.nn. Less than Significant with Mitigation Incorporated
2oo. Lane improvements are required at the locations cited to reduce significant traffic impacts.	2pp. Prior to 2020 the College shall implement the lane improvements at the El Camino College SW Entrance/Manhattan Beach Boulevard intersection identified in Table 9 of the traffic study. The Engineering Department of the City of Torrance shall monitor compliance.	2.qq. Less than Significant with Mitigation Incorporated

3. PARKING		
3.a. Inadequate parking on campus at buildout may result in illegal parking, congestion, or public safety issues off-campus.	3.b. The College shall install a total of 6,264 parking spaces at buildout of the 2012 Facilities Master Plan and maintain a minimum ratio of 0.28 spaces per FTES. A parking space utilization rate of equal or less than 90 percent is recommended for day enrollment four weeks into the fall semester. The rate shall be evaluated every three-years. Facilities Planning and Services shall monitor compliance.	3.c. Less than Significant with Mitigation Incorporated.
3.d. Inadequate parking on campus during closure of part of the Lot F Parking Structure may result in illegal parking, congestion, or public safety issues off-campus.	3.e. A temporary parking program shall be implemented during the Lot F Parking Structure construction that provides on-campus spaces with less than a ninety-five (95) percent parking space utilization weekdays. A communication program identifying available parking lots on campus shall also be implemented during the Lot F construction period. Facilities Planning and Services shall monitor compliance.	3.f. Less than Significant with Mitigation Incorporated.
3.g. Inadequate parking on campus during closureof part of the Lot F Parking Structure may result in illegal parking, congestion, or public safety issues off-campus.	3.h. The College shall offer instant rebates on purchase of new monthly Discount Bus Passes for students during any construction phase of the Lot F Channel Parking Structure when the FTES estimates and the parking factor of 0.28 spaces per FTES is exceeded. The offer days and the discount (e.g. 10 percent or more) shall be included in campus publications, the campus website, posters and in the communication program required by 3.e. All costs shall be borne by the College. Facilities Planning and Services shall monitor compliance.	3.i. Less than Significant with Mitigation Incorporated.

3.j. Inadequate parking on campus during construction and demolition activities to implement the 2012 Facilities Master Plan may result in illegal parking, congestion, or public safety issues off-campus.	3.k. If parking projections indicate the need for temporary off-campus parking spaces during Lot F Channel Parking Structure construction, the College shall enter into short-term parking agreements with businesses or churches with surplus daytime surface parking east of Crenshaw Boulevard. Other options include short-term parking space rental in areas more removed from the campus with shuttle service to campus during the peak morning and evening hours. Facilities Planning and Services shall ensure compliance.	3.l. Less than Significant with Mitigation Incorporated.
3.m. Demolition and construction activities may decrease public safety for vehicles and pedestrian on campus. Construction employees require designated parking areas during the project.	3.n. The College shall complete parking, pedestrian, circulation and signage plans to address direct and indirect public safety needs for parking on campus during the construction period. Construction employee parking areas shall be identified and the changing parking demands created by construction, increased student enrollments, and new building locations projected to balance parking demand and supply. Facilities Planning and Services shall ensure compliance.	3.o. Less than Significant with Mitigation Incorporated.
3.p. Internal circulation on campus for vehicles, pedestrians and the handicapped will be altered by demolition and construction activities, which may result in significant effects.	3.q. An Internal Circulation Plan shall be prepared based on the 2012 Facilities Master Plan. The plan shall specify all parking areas, parking regulations, public bus stops, pathways, shuttle stops, vanpool spaces, handicapped spaces, emergency vehicle access and signage within the campus needed for buildout of the 2012 Facilities Master Plan. The Plan shall comply with all requirements of the American Disabilities Act. All recommendations of the approved Internal Circulation Plan shall be included in	3.r. Less than Significant with Mitigation Incorporated.

	construction contracts and implemented. Facilities Planning and Services shall monitor compliance.	
3.s. Alternative modes of transportation may reduce vehicular trips near and on campus.	3.t. The College shall implement the following recommendations: (1) preferential carpool parking permits and spaces, (2) Bicycle racks and storage lockers, (3) if needed, restripe/redesign existing parking lots for greater efficiency and (4) create carpool and motorcycle parking permits. Facilities Planning and Services shall monitor compliance.	3.u. Less than Significant with Mitigation Incorporated.
3.w. Inadequate parking on campus during closure of part of the Lot F Parking Structure may result in illegal parking, congestion, or public safety issues off-campus. Temporary additional parking is required to reduce parking demand on campus during construction at the Lot F Parking Structure.	3.x. The college shall discuss increased parking along Manhattan Beach Boulevard from Prairie Avenue to the Dominquez Channel during the Lot F Parking Structure construction with the County of Los Angeles Department of Public Works. Any mutually agreed on improvements required for signage, parking prohibitions near intersecting streets or driveways (i.e. red curbs) and improved pedestrian crossing signage shall be financed by the college. Facilities Planning and Services shall monitor compliance.	3.y. Less than Significant with Mitigation Incorporated.
3.z. Temporary parking deficiencies will continue to occur on-campus during new registration periods, especially in the Fall Semester, and may occur during the Lot F Parking Structure renovation project. The latter deficiencies are related more to students not finding open parking spaces on- or off-campus, causing congestion on-campus in parking areas, excessive vehicle idling and excessive circulation of vehicles searching for open parking spaces.	3.aa. The six mitigation measures listed above (3b, 3e, 3h, 3k, 3t, 3x) address parking supply issues during the Lot F Parking Structure renovation and three mitigation measures listed above (2t, 3h, 3t.) address reducing parking demand on campus in general. However, some temporary parking deficiencies may occur during construction and during registration periods.	3.bb. Unavoidable Adverse Impact

4. AIR QUALITY		
4.a. Construction activities and construction equipment may generate particulates in excess of SCAQMD thresholds.	4.b. All contractors shall comply with all feasible Best Available Control Measures (BACM) in Rule 403 included in Table 1: Best Available Control Measures Applicable to All Construction Activity Sources. In addition, the project shall comply with at least one of the following Track-Out Control Options: (a) Install a pad consisting of washed gravel (minimum-size: one inch) maintained in a clean condition to a depth of at least six inches and extending at least 20 feet wide and 50 feet long, (b) Pave the surface extending at least 100 feet and a width of at least 20 feet wide, (c) Utilize a wheel shaker/wheel spreading device consisting of raised dividers (rails, pipe, or grates) at least 24 feet long and 10 feet wide to remove bulk material from tires and vehicle under carriages before vehicles exit the site, (d) Install and utilize a wheel washing system to remove bulk material from tires and vehicle undercarriages before vehicles exit the site, (e) Any other control measures approved by the Executive Officer and the U.S. EPA as equivalent to the methods specified items (a) through (d) above. Individual BACM in Table 1 that are not applicable to the project or infeasible, based on additional new project information, may be omitted only if Planning Facilities Planning and Services specifies in a written agreement with the applicant that specific BACM measures may be omitted. Any clarifications, additions, selections of alternative measures, or specificity required to	4.c. Less than Significant with Mitigation Incorporated.

	implement the required BACM for the project shall be included in the written agreement. The written agreement shall be completed prior to commencement of demolition and/or grading permit for a project. Facilities Planning and Services shall ensure compliance.	
4.d. Construction equipment may generate NO_x emissions in excess of SCAQMD thresholds of significance.	4.e. Construction contracts shall specify that all diesel construction equipment used onsite shall use ultra-low sulfur diesel fuel. Project construction contracts shall also prohibit vehicle and engine idling in excess of five (5) minutes and ensure that all off-road equipment is compliant with the CARB's in-use off-road diesel vehicle regulations and SCAQMD Rule 1186 and 1186.1 certified street sweepers or roadway washing trucks, and all internal combustion engines/construction equipment operating on the project site shall meet EPA-Certified Tier 2 emissions standards, or higher according to the adopted project start date requirements. A copy of each unit's certified tier specification, BACT documentation and CARB or SCAQMD operating permit shall be provided to the construction manager at the time of mobilization of each applicable unit of equipment. Facilities Planning and Services shall ensure compliance.	4.f. Less than Significant with Mitigation Incorporated.
4.g. Construction activities may generate fugitive dust in excess of SCAQMD thresholds of significance.	4.h. During grading and construction, fugitive dust from construction operations shall be reduced by watering at least twice daily using reclaimed water or chemical soil binder, where feasible, or water whenever substantial dust generation is evident. Grading sites of more than ten gross acres shall be watered at least three times daily. The project shall comply	4.i. Less than Significant with Mitigation Incorporated.

	with Rule 403: Fugitive Dust (South Coast Air Quality Management District). Project contractors shall suspend grading operations, apply soil binders, and water the grading site when wind speeds (as instantaneous gusts) exceed 25 miles per hour. Traffic speeds on all unpaved graded surfaces shall not exceed 15 miles per hour. All grading operations shall be suspended during first and second stage smog alerts. All project contracts shall require project contractors to keep construction equipment engines tuned to ensure that air quality impacts generated by construction activities are minimized. Upon request, contractors shall submit equipment tuning logs to Facilities Planning and Services. Facilities Planning and Services shall ensure compliance	
4.j. Construction contractors may reduce trips and reduce congestion by implementing various measures.	4.k. During construction, contractors shall minimize offsite air quality impacts by implementing the following measures: (a) encourage car pooling for construction workers, (b) limit lane closures to off-peak travel periods, (c) park construction vehicles off traveled roadways, (d) encourage receipt of materials during non-peak traffic hours and (e) sandbag construction sites for erosion control. These requirements shall be included in construction contracts and implemented. Facilities Planning and Services shall monitor compliance.	4.l. Less than Significant with Mitigation Incorporated.
4.m. Deliveries in peak hour increase area traffic congestion.	4.n. Truck deliveries and pickups shall be scheduled during off-peak hours whenever possible to alleviate traffic congestion and air quality emissions during peak hours. Facilities	4.o. Less than Significant with Mitigation Incorporated.

	Planning and Services shall monitor compliance.	
4.p. Inefficient energy management system may increase energy use and pollutant emissions.	4.q. An energy management system shall be installed in all new facilities to reduce energy consumption and related pollutant emissions. Facilities Planning and Services shall monitor compliance.	4.r. Less than Significant with Mitigation Incorporated.
4.s. Construction equipment may generate NOx emissions in excess of SCAQMD standards because older equipment is being used.	4.t. During project construction, all off-road diesel-powered construction equipment greater than 50 hp shall meet the EPA-Certified Interim Tier 4 emission standards where available. All construction equipment shall be outfitted with BACT devices certified by CARB. Any emission control devices used by a 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. A copy of each unit's certified tier specification, BACT documentation and CARB or SCAQQMD operating permit shall be provided by contractors before commencement of equipment use on campus. Facilities Planning and Services shall ensure compliance.	4.u. Less than Significant with Mitigation Incorporated.
4.v. Construction activities and construction materials may generate ROG and VOC emissions in excess of SCAQMD ROG standards.	4.w. To reduce VOC emissions, all construction contracts shall specify the use of paint with low VOC emissions (ROG emission rate of less than 0.80 pounds per gallon), limit painting to eight hours per day, use paint thickness of 0.75 millimeters or less, use water-based and low-VOC coatings with ROG/VOC emissions of less than 8.0 pounds per 1,000 square feet of painted surface, and use high-volume, low pressure sprayers.	4.x. Less than Significant with Mitigation Incorporated.

	Purchasing shall ensure compliance.	
4.y. The net increase in operational air quality emissions due to the project (e.g. 2020 with and without the project) for NOx particulates is projected as 57.3 lbs/day and the SCAQMD operational threshold is 55 lbs/day. The NOx operational emission increase is caused by vehicular emissions.	4.z. The recommended mitigation measures to increase public transit use (Mitigation Measures 2.t., 3.h., 3.t.) will reduce vehicle trips. These measures should reduce NOx emissions below the SCAQMD threshold. However, their success is not guaranteed since student participation in public transit and bus pass subsidy programs is not mandatory. There may be short periods of time in which the required NOx emission reductions are not achieved.	4.aa. Unavoidable Adverse Impact
5. GREENHOUSE GASES		
5.a. Future building construction and operation contributes toward regional GHG cumulative emissions that are beyond SCAQMD standards. All projects shall contribute their fair share toward reducing GHG emissions by 8 percent by 2020.	5.b. Future buildings exceeding 20,000 ASF shall have building roof coverings have a minimum three-year aged solar reflectance and thermal emittance, or a minimum reflectance index (SRI) greater than or equal to the values specified in Sections A5.106.11.2.1 and A5 106.11.2.2 or a minimum aged Solar Reflectance Index (SRI) 3 complying with Sections A5.106.11.2.3 and as shown in Table A5.106.11.2.1 or A5.106.11.2.2 in Appendix A5 for Non-Residential Voluntary Measures in the 2010 California Green Building Standards Code (CalGreen). Facilities Planning and Services shall ensure compliance.	5.c. Less than Significant with Mitigation Incorporated.
5.d. Future building construction and operation contributes toward regional GHG cumulative emissions that are beyond SCAQMD standards. All projects shall contribute their fair share toward reducing GHG emissions by 8 percent by 2020.	5.e. Future buildings exceeding 20,000 ASF shall include occupant sensors, motion sensors and vacancy sensors capable of automatically turning off all the lights in an area no more than 30 minutes after the area has been vacated and shall have a visible status signal indicating that the device is operating	5.f. Less than Significant with Mitigation Incorporated.

	properly or that it has failed or malfunctioned. The visible status signal may have an override switch that turns the signal off. In addition, ultrasonic and microwave devices shall have a built-in mechanism that allows the calibration of the sensitivity of the device to room movement in order to reduce the false sensing o occupants and shall comply with either Subsection A5.209.1.4.1 or A5.209.1.4.2 as applicable. These measures are included in Appendix A5 for Non-Residential Voluntary Measures in the 2010 California Green Building Standards Code (CalGreen). Facilities Planning and Services shall ensure compliance.	
5.g. Future building construction and operation contributes toward regional GHG cumulative emissions that are beyond SCAQMD standards. All projects shall contribute their fair share toward reducing GHG emissions by 8 percent by 2020.	5.h. Future buildings exceeding 20,000 ASF shall include installation of field-fabricated fenestration (i.e. windows) and field-fabricated exterior doors only if the compliance documentation demonstrates compliance for the installation using U-factors from Table A5.205.1-A and Solar Heat Gain Coefficient (SHGC) values from Table A5.205.1-B included in Appendix A5 for Non-Residential Voluntary Measures in the 2010 California Green Building Standards Code (CalGreen). Facilities Planning and Services shall ensure compliance.	5.i. Less than Significant with Mitigation Incorporated.
5.j. Future building construction and operation contributes toward regional GHG cumulative emissions that are beyond SCAQMD standards. All projects shall contribute their fair share toward reducing GHG emissions by 8 percent by 2020	5.k. Future buildings exceeding 50,000 ASF shall either have an energy efficiency of 30 percent above Title 24. Part 6 (e.g. Exceed CEC requirements (Performance Approach), based on the 2008 Energy Efficiency Standards by 30 percent and meet the requirements of Division A45.6) or exceed the	5.l. Less than Significant with Mitigation Incorporated.

	latest edition of "Savings by Design, healthcare Modeling Procedures" by 15 percent, in accordance with Section A.5.203.1.2 CALGreen Tier 2 (OSHPD), as listed in Appendix A5 for Non-Residential Voluntary Measures in the 2010 California Green Building Standards Code (CalGreen). Facilities Planning and Services shall ensure compliance.	
5.m. Impervious pavement in large surface parking lots increases area temperatures and results in greater runoff than porous surfaces.	5.n. If Lot L undergoes major resurfacing in the future, the parking lot shall be constructed with solar reflective asphalt coating to reduce heat island effects. Facilities Planning and Services shall ensure compliance.	5.o. Less than Significant with Mitigation Incorporated.
5.p. The project's contribution to regional GHG emissions (e.g. net increase at buildout) is regarded as significant without mitigation. If the project can achieve an 8 percent reduction in GHG emissions by 2020 (e.g. the SCAG adopted reduction goal), it would be regarded as Less than Significant with Mitigation Incorporated. However, since most GHG emissions are related to vehicular emissions, this is unlikely.	5.q. The mitigation measures listed above, as well as those listed in Section 2. TRAFFIC and Section 3. PARKING that reduce vehicle trips to campus due to increased use of public transportation, ridesharing, etc. will result in some reduction in project GHG emissions, but will likely not achieve an 8 percent reduction by 2020 consistent with SCAQMD regional policies.	5.r. Unavoidable Adverse Impact
6. NOISE		
6.a. Construction activities on campus during the early morning or evening hours may be disruptive for adjacent residential neighborhoods.	6.b. All construction and general maintenance activities, except in emergencies or special circumstances, shall be limited to the hours of 7 am to 7 pm Monday-Saturday and prohibited on Sundays and legal holidays. Staging areas for construction shall be located away from existing offsite residences. All construction equipment shall use properly operating mufflers. These requirements shall be	6.c. Less than Significant with Mitigation Incorporated.

	included in construction contracts and implemented. Facilities Planning and Services shall monitor compliance.	
6.d. Prolonged public address systems at higher decibel levels may be annoying and disruptive in quiet residential neighborhoods.	6.e. Loudspeaker and other public address systems on campus shall be located and adjusted to register no more than 70 dB Lmax at the nearest offsite residences. Facilities Planning and Services shall monitor compliance.	6.f. Less than Significant with Mitigation Incorporated.
6.g. Prolonged car alarms for extended periods of time are annoying and disruptive to adjacent citizens and campus patrons.	6.h. The College shall adopt policies and post signs in the parking structures indicating vehicles with alarms may be towed from parking areas if alarms sound for more than five minutes. The Campus Police Department shall ensure compliance	6.i. Less than Significant with Mitigation Incorporated.
6.j. Demolition activities may result in noise levels beyond the selected threshold of significance.	6.k. The construction contracts for demolition of the Shops and Technical Arts buildings shall require use of quieter jackhammers (i.e. rotary pneumatic compressors and electro-pneumatic jack-hammers) for removal of existing pavement on campus along Manhattan Beach Boulevard. The contract shall also limit the use of machine-mounted hydraulic jackhammers for building demolition and the use of asphalt removal equipment to 8 am to 5 pm Monday through Friday). Facilities Planning and Services shall monitor compliance.	6.l. Less than Significant with Mitigation Incorporated.
6.m. Construction activities for new facilities may result in noise levels beyond the selected threshold of significance.	6.n. The construction contracts for demolition and construction of the Administration building shall require use of quieter jackhammers (i.e. rotary pneumatic compressors or electro-pneumatic jackhammers). Use of any machine-mounted hydraulic jackhammers shall be limited to 8 am to 5 pm Monday through	6.o. Less than Significant with Mitigation Incorporated.

	Friday. Hourly limitations do not apply when the building shell is complete. Facilities Planning and Services shall monitor compliance.	
6.p. Construction activities for new facilities may result in noise levels beyond the selected threshold of significance.	6.q.The construction contracts for construction of the Lot C Parking Structure, and Student Services buildings shall require use of quieter equipment (i.e. front loaders with rubber tires, factory recommended mufflers, onsite electrical sources for power equipment rather than diesel generators, sound blankets, temporary sound barriers as required by the college, and electric welders). Construction hours shall be limited to Use of asphalt removal or installation equipment shall only occur during limited construction hours (8 am to 5 pm Monday through Friday). Facilities Planning and Services shall monitor compliance.	6.r. Less than Significant with Mitigation Incorporated for residential lots with concrete rear walls. Some occasional demolition and construction noise impacts for the Shops, Technical Arts and Lot C Parking Structure projects may exceed County noise standards for lots located north of Manhattan Beach Boulevard near Lemoli Avenue with wooden rear yard fences. While noise impacts will be reduced by the recommended mitigation measures at these locations, they remain Unavoidable Adverse.
6.s. Construction activities for new facilities may result in noise levels beyond the selected threshold of significance.	6.t. The construction contracts for construction activities for Phase 1 of the Lot F Parking Structure renovation shall require use of quieter jackhammers (i.e. rotary pneumatic compressors or electro-pneumatic jackhammers) for work within 750 feet of the face of the apartment buildings south of Redondo Beach Boulevard and for work located east of the Alondra Park lakeshore. Facilities Planning and Services shall monitor compliance.	6.u. Less than Significant with Mitigation Incorporated.
6.v. Stadium operations in early morning or late evening hours may be annoying for offsite residential areas.	6.w. The hours of operations of the Stadium facilities shall be limited to 7:00 am to 11:00 pm weekdays except for special events or occasions approved by the Director of Facilities. Weekend special events within the	6.x. Less than Significant with Mitigation Incorporated.

	complex such as tournaments, day-long-meets, marching bands shall not begin before 8:00 am on Saturday or 9:00 am on Sunday unless approved by the Director of Facilities. A week in advance, users shall file an Operations Schedule with the Director of Facilities for special events that identifies hours of use and major noise sources. The Facilities Planning and Services shall ensure compliance.	
6.y. Construction activities for the Lot F Parking Structure may be annoying for park patrons east of the lake, patrons of the group picnic site and golf players along the perimeter near the proposed staging area.	6.z. The College shall apply for an Access Permit and Letter of Agreement from the County of Los Angeles Park Department for construction activities and operations occurring near or within Alondra Park prior to commencement of the project. All construction contracts for the Lot F Parking Structure renovation shall implement the mutually agreed on construction operations, standards and mitigation measures to reduce adverse noise, aesthetic, land use and intrusion impacts within Alondra Park. These measures may include limitations on use of specific areas, specified hours of use for specific areas, use of specific construction equipment with reduced noise characteristics, park patron public safety measures, perimeter fencing and security. Special attention shall be given to any feasible mitigation measures that will reduce offsite construction noise impacts within the park east of the lake. The Agreement shall address all post-project conditions that must be implemented, park design standards and financing responsibilities. Facilities Planning and Services shall monitor compliance.	6.aa. Unavoidable Adverse in the areas of Alondra Park east of the lake and west of the potential staging area along the golf course perimeter during some construction activities for the Lot F Parking Structure.

6.bb. Citizen concerns for construction-related noise may not be addressed promptly.	6.cc. At least one week prior to commencement of each major construction phase (including demolition and building construction phases), the prime contractor shall post notices of the expected duration and times of construction activities in a public viewing location visible from Manhattan Beach Boulevard. A contact name and 24-hour phone number for the contractor shall be identified in the notices to address any citizen concerns. The prime contractor shall review the phone messages daily and respond to the messages within 24-hours. A summary of all citizen concerns shall be forwarded to the Director of Facilities or his assignee by e-mail within two working days of receiving a message. Any major citizen concern shall be forwarded to the Director of Facilities or his assignee within eight hours. A written record of all messages received, and when and how the concern was addressed, shall be maintained by the prime contractor. The written records shall be forwarded to the Director of Facilities or his assignee monthly. All construction contracts for the prime contractors shall include this requirement. Facilities Planning and Services shall ensure compliance.	6.dd. Less than Significant with Mitigation Incorporated.
7. SOILS/GEOLOGY		
7.a. Buildings being renovated that are structurally unsound may pose hazards to construction employees and future occupants.	7.b. Prior to implementation, a *Structural-Building Assessment* shall be completed for all buildings on campus proposed for renovation. Facilities Planning and Services shall monitor compliance.	7.c. Less than Significant with Mitigation Incorporated.

7.d. Potential unstable soil conditions and seismic events may pose hazards for construction employees and future occupants.	7.e. All recommendations in the final geo-technical report(s) for future projects included in the 2012 *Facilities Master Plan* shall be included in construction contracts and implemented. The reports shall investigate both soil conditions and seismic hazards. Facilities Planning and Services shall monitor compliance.	7.f. Less than Significant with Mitigation Incorporated.
7.g. Construction activities may uncover and damage paleontological objects that were not anticipated in general surveys in the area.	7.h. During construction grading and site preparation activities, the Contractor shall monitor all construction activities. In the event a paleontological find or a potential paleontological find is discovered, construction activities shall cease and the Contractor shall inform the Project Manager. A qualified paleontologist shall be contacted to analyze the find and recommend further appropriate measures to reduce further impacts on paleontological resources. Facilities Planning and Services shall monitor compliance.	7.i. Less than Significant with Mitigation Incorporated.
7.j. The potential for methane onsite due to the offsite former Alondra Oil Field may pose hazards for future building occupants.	7.k. A subsurface soil gas investigation shall be completed for any project site (other than the Stadium and Shops) when the geotechnical report indicates the potential of methane. Facilities Planning and Services shall monitor compliance.	7.l. Less than Significant with Mitigation Incorporated.
7.m. The potential for methane onsite due to the offsite former Alondra Oil Field may pose hazards for future building occupants.	7.m. If a subsurface soil gas assessment (e.g. methane and VOCs) indicates the potential for presence of methane above Department of Toxic and Control Substances (DTSC) and City of Los Angeles Department of Building and Safety (DBS) methane action levels, final design grading shall be completed prior to implementation of soil gas monitoring. The soil gas monitoring shall evaluate the VOCs and	7.o. Less than Significant with Mitigation Incorporated.

	methane concentrations throughout the project site. If additional measures are required they shall be designed to prevent accumulation of methane at actionable levels within confined spaces (e.g. ventilated attic spaces, installation of vapor barriers beneath structures, etc.). Within 60 days of the completion of soil gas monitoring on a graded site, a report shall be submitted to DTSC for review. Any measures required by DTSC for soil gas levels onsite shall be implemented prior to construction. Facilities Planning and Services shall ensure compliance.	
8. HISTORIC RESOURCES		
8a. Demolition, renovation and construction related to the project will adversely impact historic resources recommended as eligible for the California Register and the National Register.	8.b. If feasible, the District agrees, and an application for a Historic District for the campus is approved by SHPO, all subsequent activities related to the 2012 Facilities Master Plan that avoid adverse impacts by not materially altering the physical characteristics of buildings designated as Contributors to a Historic District must be implemented. Facilities Planning and Services shall ensure compliance.	8.c. Less than Significant with Mitigation Incorporated
8.d. Demolition, renovation and construction related to the project will adversely impact historic resources recommended as eligible for the California Register and the National Register.	8.e. If feasible, the District agrees, and an application for a Historic District for the campus is approved by SHPO, the District shall retain the services of a qualified historic preservation consultant with experience in architectural preservation to review structural designs and monitor construction activities affecting historic resources to ensure protection of the historic fabric and compliance with approved designs in conformance with the	8.f. Less than Significant with Mitigation Incorporated

	Secretary of the Interior's Standards for the Rehabilitation of Historic Properties. Facilities Planning and Services shall ensure compliance.	
8.g. Demolition, renovation and construction related to the project will adversely impact historic resources recommended as eligible for the California Register and the National Register.	8.h. If an application for a Historic District for the campus is not approved, documentation shall be completed for all buildings recommended as Contributors to a Historic District using the Historic American Building Survey (HABS) Level 2 standards as guidelines for recording the buildings through photographs, drawing and written descriptions. Facilities Planning and Services shall ensure compliance.	8.i. Unavoidable Adverse Impact
9. LOT F CHANNEL PARKING STRUCTURE RENOVATION		
9.a. Closing of portions of the Lot F Parking Structure for construction while the remaining areas are available parking may result in some conflicts between pedestrians and vehicles parked or moving onsite, and construction activities.	9.b. Pedestrian and vehicular access to all active construction areas in the Lot F Parking Structure shall be restricted to ensure public safety. Construction vehicular equipment routes shall be planned to minimize conflicts with non-construction vehicles and pedestrians. Flag persons and special signalization shall be used to assure safe passage for construction equipment. Facilities Planning and Services shall ensure compliance.	9.c. Less than Significant with Mitigation Incorporated.
10. TRANSIT SERVICES		
10.a. Parking demand on campus and local air quality emissions will be reduced if more students use public transit.	10.b. Schedule/fee information for Gardena Municipal Bus Lines, Torrance Transit System and the County of Los Angeles Metropolitan Transit Authority shall be made available for students for each term. The college shall offer	10.c. Less than Significant with Mitigation Incorporated.

	students discount bus passes for transit lines which offer them. Planning and Services shall monitor compliance.	
Source: SID LINDMARK, AICP, April 15, 2013		

PROJECT DESCRIPTION

2.0 PROJECT DESCRIPTION

Section 2.0 describes the exiting setting of the project at the time of the issuance of the Notice of preparation and the project characteristics.

2.1 LOCATION AND SETTING

El Camino College is located approximately one mile east of Interstate 405 at Manhattan Beach Boulevard and Crenshaw Boulevard. The portions of the campus south of Redondo Beach Boulevard (i.e. Child Development Center and parking) are located in the City of Torrance. The remainder of the campus north of Redondo Beach Boulevard is located in unincorporated Los Angeles County.

The 126-acre campus is immediately south of El Camino Village, east of Alondra Park Golf Course and the Lot F Channel Parking Structure is located above the Dominguez Channel. The immediate area east of the campus and Crenshaw Boulevard is commercial. The surrounding areas beyond these locations are residential in Lawndale to the west, Torrance to the south and Gardena to the east. Portions of the City of Hawthorne are located north of El Camino Village. The surrounding area is urban and has all available public services.

The majority of the existing campus classroom facilities are located north of Redondo Beach Boulevard and east of the athletic facilities. Notable facilities on campus include the Planetarium, Marsee Auditorium, the Library and the Humanities Building. The campus and surrounding land uses are shown in the aerial photo (March 2012) in Exhibit 2.

The public schools in the campus are include Will Rogers Middle School (4110 West 154th Street) in Lawndale, 156th Street Elementary in Gardena (1605 West 153th Street) and Carr Elementary (3404 West 168th Street) and Arlington Elementary (17800 Van Ness Avenue) in Torrance. Carr Elementary is Torrance is located within ¼ mile of the campus south of Redondo Beach Boulevard.

2.2 PROJECT CHARACTERISTICS

Differences between the 2003 and 2012 Facility Master Plan Updates are highlighted below. The location for the Shops building is relocated from east of Maintenance to east of the Baseball Field and the square footage is increased. Technical Arts is relocated from north of the Bookstore to the Industry and Technology Building. The Lot H Parking Structure is located west of the tennis courts and not immediately adjacent to Marsee Auditorium. The Police facility is moved from its existing location to the Lot C Parking Structure. The Business building footprint changed with open space eliminated south of the building. The new Fine Art/Music Theater building was added to the plan and relocated to the South Gym site. The new Arts & Behavioral facilities will be built east and north of Social Science, with intervening open space.

The Music/Theater building is moved from the proposed Arts and Behavioral Science site to the Pool/South Gym site. The proposed Amphitheater in the center of campus was formerly the site for the Activates Center. The changes in building footprints in the core of the campus now create a larger continuous open space and amphitheater separated by the Crescent Walk, with the entire open space area surrounding by seven buildings. The North Plaza between the Bookstore and the Student Activities Center is also new in the 2012 Facilities Master Plan.

The 2003 and 2012 Facilities Master Plans are similar in that the FTES projections for 2020 are similar. However, the projected trips have declined and the total assignable square footage has increased. The space requirements on campus are driven by the Weekly Student Contact Hours, the needs of individual campus instructional programs and the Chancellor's Office Prescribed Space Standards (i.e. a formulas for various building functions).

The following site photo is of the Math/Bushiness/Allied Health and Social Science facilities, which are near construction completion.

Exhibit 5
Business Education Allied Health

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Table 2.2.1
Project New Construction

Space Category	Project	Current ASF	2020 ASF
050	Inactive Space	2,281	0
100	Classroom	131,829	125,274
210-255	Laboratory	195,243	275,736
300	Office/Conference	110,357	114,415
400	Library	74,324	68,032
520-525	Physical Ed. (Teaching Gym)	3,535	15,256
530-535	Instructional Media (AV/TV)	98,565	71,509
540-555	Clinic/Demonstration	7,890	10,309
610-625	Assembly/Exhibition	67,063	36,401
630-635	Food Service	19,619	21,841
650-655	Lounge/Lounge Service	24,101	19,165
660-665	Merchandise Facility	8,570	17,665
670-690	Meeting/Recreation	22,587	12,122
710-715	Data Processing	6,565	5,000
720-770	Physical Plant	45,979	36,696
880	Health Service	1,182	1,200
	Other	0	20,840
	TOTAL	819,740	854,461
	Increase		34,721
Source: Comprehensive Master Plan 2012-2017, July 2, 2012, Figure 19.			

The Building Requirements data is based on the instructional program or function and not on individual buildings.

The 2012 Facilities Master Plan includes the following nineteen (19) new buildings and renovation of seven (7) buildings.

Table 2.2.2
Project Phasing

Building Index	Project	ASF	OGSF	Projected Occupancy
	A. New Construction			
	Social Science (under construction)	22,825	34,081	8/2012
	Math Business & Health Science (under construction)		100,000	2/2013
	Student Services Center	38,228	58,808	6/2015
	Student Activities Center	22,959	35,322	4/2020
	Shops (design)	31,850	49,000	6/2014
	Music/Theater	44,332	68,200	11/2018
	Administration		30,000	11/2016
	Art & Behavioral Science I	29,300	45,000	1/2020
	Art & Behavioral Science II	29,300	45,000	1/2020
	Parking Structure & Campus Police			6/2015
	Stadium Complex/Field House			6/2014
	Main Gym/Athletic Support Space		69,000	7/2018
	Competition Pool		18,000	9/2016
	Adaptive Pool			9/2016
	Locker Rooms			7/2018
	Team Rooms			7/2018
	PE CR			7/2018
	Lot F Parking Structure Expansion			3/2016
	Total	--	--	
	B. Renovation Change			
	Library	-6,292		12/2017
	Marsee Auditorium	0	0	12/2018
	Natural Science/STEM (design)	0	0	8/2013
	Maintenance	0	0	12/2014
	Industry and Technical Arts (design)	0	0	9/2014
	Planetarium	0	0	10/2014
	Warehouse	0	0	10/2014
	Construction Technology	0	0	10/2014
	Total	-6,292	--	

Source: 2012 Facilities Master Plan, Sequencing Schedule, Option B, COBC, Annual Report 7/1/2010 – 6/30/2011, STEM converts lower level of Natural Science building, Tom Brown, 9/26/12.
This DEIR provides CEQA air quality, GHG and noise clearances for 695,356 OGSF of new construction and 695,356 OGSF of demolition (Table 1.1.2), which exceed the totals in Table 2.2.2. It also provides clearances for an Adjusted FTES increase of 3,625 and an additional 4,459 ADT.

Fourteen buildings will be demolished during the construction period. All of the buildings being demolished are fifty (50) or more years old, except for Campus Police (2000), Community Advancement (1980) and Music/Campus Theatre (1967).

Five of the seven buildings being renovated are also more than fifty (50) years old. The Planetarium (1969) and Construction Technology (1982) are the two exceptions.

Table 2.2.3
Project Demolitions

Building Complex	Stories	ASF	OGSF	Month/Year
Stadium		---	---	5/2013
Field House	1	---	6,377	6/2013
Handball Courts	2	---	6,982	8/2012
Campus Police[1]	1	2,528	4,536	N/A
Activities Center	1	22,959	25,875	10/2020
Student Services	2	34,594	43,475	10/2018
Community Advancement	1	1,740	1,800	6/2013
Technical Arts	2	6,348	6,982	3/2014
Shops	1	46,192	105,908	3/2014
Communications	2	21,945	36,950	5/2018
North Gym/Physical Education North	2	52,913	97,026	2/2016
Music/Campus Theatre	2	44,322	82,366	12/2017
Physical Education South/South Gym	2	45,384	65,227	10/2015
Administration	2	40,256	50,358	1/2015
Art/North B/Gallery	3	58,635	112,006	12/2017
Subtotal		377,816	645,868	

Source: Existing Building Inventory, p. 105, Comprehensive Master Plan 2012-2017, July 2, 2012, Tom Brown, 10/28/2012.
1 Campus Police may or may not relocate to the Lot C Parking Structure.

2.3 INTENDED USES OF THIS SEIR

The Board of Trustees of El Camino Community College District will use this Subsequent EIR (SEIR) in their review and consideration of the 2012 Facility Master Plan. The required District actions for the project include Certification of the Subsequent EIR, approval of a Statement of Facts and Findings, approval of a Statement of Overriding Considerations and, approval of the Mitigation Monitoring Program.

This report also provides environmental information to a number of local, state, county and regional agencies providing service to the project, having discretionary review over

portions of the project, or having an interest in the project. These agencies and groups are identified below.

Table 2.3.1
Responsible Agencies and Interested Groups

Agency	Interest
Community College Chancellor's Office	Building safety and construction standards
California Regional Water Quality Control Board–Region 4	Impacts on water quality
County of Los Angeles Department of Public Works	Traffic and land use impacts
Torrance Municipal Water District	Impacts on water supply
South Coast Air Quality Management District	Construction and operational impacts on air quality emissions
Los Angeles County Metropolitan Transportation Authority	MTA transportation systems
Torrance Transit, Lawndale Beat System, Gardena Municipal Bus System	Public transit demands
Consolidated Sanitation Districts of Los Angeles County	Impacts on wastewater facilities.
County of Los Angeles Fire Department	Impacts on fire facilities
California Department of Transportation-Region 7	Traffic impacts on local freeways

EXISTING ENVIRONMENTAL CONDITIONS, IMPACTS AND MITIGATION MEASURES

3.0 EXISTING ENVIRONMENTAL CONDITONS, IMPACTS AND MITIGATION MEASURES

Section 3.0 describes the existing conditions of the project area, potential project impacts of the project upon the local environment and recommended mitigation measures to reduce project impacts to Less than Significant when feasible.

3.1 LAND USE

A. Existing Land Use Conditions

The existing conditions for the campus in 2012 are similar to 2003. The Learning Resource Center and Humanities facilities were completed in 2008. The Lot H parking Structure was completed in 2009. With the exception of the areas devoted to open space and athletic facilities, the campus is developed with structures, surface and structured parking area and interior streets (Exhibits 2, 4). Buildings onsite were constructed from 1949 to 2011, although the majority of the existing buildings were constructed before 1962. Of the twenty-eight existing buildings on campus, only twelve (12) are 50,000 OFGT or greater. Only two existing building complexes are greater than 100,000 OGFT Math & Computer Science and Art.

Table 3.1.1
2012 Campus Land Uses

Land Use	Estimated Acres	Percent
Surface/Structured Parking	26	21
Athletic Fields/Stadium/Tennis	22	17
Open Space/Circulation	56	44
Instructional Space	10	8
Library/SAC/SSC/Bookstore	7	6
Other[1]	5	4
Total	126	100
Source: Facilities Planning and Services, August 2012 1 Administration, Maintenance, Warehouse, Construction Tech, Marsee Auditorium		

Future land uses are not vastly different from existing campus land uses. However, the acreage devoted to parking will increase slightly, as will the amount of landscaped open space on campus. The campus is zoned Public/Quasi-Public/Open Space and C-2 in the City of Torrance and Public/Semi-Public Facility and A-1 in Los Angeles County.

The surrounding land uses off-campus remains generally the same as in 2003. The areas are primarily residential, with the exception of the commercial areas east of the campus along Crenshaw Boulevard. Carr Elementary School is the closest educational facility off-campus south of Redondo Beach Boulevard. The Regulation 18 hole Alondra Park Golf Course, operated by the County of Los Angeles Parks and Recreation Department, is located immediately west of the campus across the Dominguez Channel. The South course was developed in 1947 and the North Front course in 2008.

An estimate of existing campus facilities indicates the spatial usage for Classrooms, Laboratory, Office/Conference and Instructional Media comprise 65 percent of the total assignable square footage for building uses.

There are currently approximately 4,917 parking spaces available on campus (September 2012), with 2,600 available spaces in the two parking structures (53 percent).

Table 3.1.2
2012 Campus Building Uses

Usage	Assignable Square Feet (ASF)	Percent
Classrooms	131,829	16
Laboratory	195,243	24
Office/Conference	110,357	13
Library	74,324	9
Instructional Media (AV/TV)	98,565	12
Assembly/Exhibition	67,063	8
Food Service	19,619	2
Lounge/Lounge Service	24,101	3
Meeting/Recreation	22,587	3
Physical Plant	45,979	6
Other	30,073	4
Total	819,740	100
Source: Facilities Planning and Services, Figure 19, Comprehensive Master Plan 2012-2017		

B. Project Land Use Impacts

The thresholds of significance used in the land use section are whether the proposed project land uses conflict with a goal or objective of applicable General Plans. The geographical area used for identification of project land use impacts is the 126-acre campus and its immediate surroundings.

Unless stated otherwise in each topical section, the thresholds of significance and geographical area for analysis used for cumulative impacts is the same as that stated for project impacts

All of the land use impacts resulting from the 2012 Facilities Master Plan are confined to the campus and are not significant. In general, the major land use change to the campus is to improve pedestrian circulation, add more landscaping to the campus and add several courtyards, the amphitheater and open space areas. The change is most evident south of the Student Activities Center and the Library. The second change is the development of more structured parking on campus, including the Parking North (Lot C) structure and the addition of a third level of parking to the Lot F Channel Parking Structure. Solar panels will be constructed above the third level of parking.

The 2012 FMP has no direct adverse significant land use impacts. The new projects do not conflict with adjacent offsite land uses and are compatible with adjacent existing buildings on campus that are not changed by the 2012 FMP or will be renovated by the 2012 FMP. The approximate change in land use for various subcategories is shown by comparing the data in Table 3.1.2 and Table 3.1.3.

Table 3.1.3
2020 Campus Land Uses

Land Use	Estimated Acres	Percent
Surface/Structured Parking	27	32
Athletic Fields/Stadium/Tennis	20	13
Open Space/Circulation	60	11
Instructional Space	9	17
Library/SAC/SSC/Bookstore	4	3
Other[1]	6	25
Total	126	100
Source: Facilities Planning and Services 1 Administration, Maintenance, Warehouse, Construction Tech, Marsee Auditorium		

The change in spatial use of the facilities on campus is shown in the following table. These statistics reflect the changes in WSCH for individual programs the college offers to students and the prescribed space standards required by the Community Colleges Chancellor's Office.

Table 3.1.4
2020 Campus Building Uses

Usage	Existing 2012	Future 2020	Change	Percent Change
	Assignable Square Footage (ASF)			
Classrooms	131,829	125,274	-6,555	-4.9
Laboratory	195,243	275,736	80,493	+41.0
Office/Conference	110,357	114,415	+4,058	+3.7
Library	74,324	68,032	-6,292	-8.5
Instructional Media (AV/TV)	98,565	71,509	-27,056	-27.4
Assembly/Exhibition	67,063	36,401	-30,662	-45.7
Food Service	19,619	21,841	+2,222	+11.2
Lounge/Lounge Service	24,101	19,165	-4,936	-49.8
Meeting/Recreation	22,587	12,122	-10,465	-46.4
Physical Plant	45,979	39,696	-6,283	-13.7
Other	30,073	70,630	40,557	135.0
Total	819,740	854,461	+34,721	+4.2
Source: Facilities Planning and Services, Figure 19, Comprehensive Master Plan 2012-2017				

C. Project Land Use Mitigation Measures

LU-01: All future land uses on campus, building locations and square footage (ASF) shall be in substantially consistent with the 2012 Facilities Master Plan. Facilities Planning and Services shall monitor compliance.

D. Level of Significance for Project Land Use Impacts

Less than Significant With Mitigation Incorporated.

E. Cumulative Land Use Conditions

The areas north, west, southwest and southeast of the campus are primarily residential. The exceptions are the Alondra Park Golf Course west of the campus and the commercial centers east of the campus along Crenshaw Boulevard. No additional

projects have been identified in the area from consultation with adjacent cities and the County of Los Angeles.

F. Cumulative Impacts for Land Use

There are no additional projects in the immediate campus area. Therefore, there are no cumulative land use impacts. The respective General Plans of the adjacent cities and the County of Los Angeles (El Camino Village) are subject to their own CEQA clearances.

G. Mitigation Measures for Cumulative Land Use Impacts

None are required.

H. Level of Significance for Cumulative Land Use Impacts

Not applicable.

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3.2 TRAFFIC/CIRCULATION

A. Existing Conditions for Traffic/Circulation

A traffic impact analyses for the 2012 Facilities Master Plan was completed by Kunzman Associates (transportation planning and traffic engineering) in October 2012. New traffic counts were obtained for the project area on September 18-20, 2012. The traffic report is summarized herein and the entire report is included as Appendix B.

Regional access to the campus is from Interstate 405 (San Diego Freeway) and State Route 91 (Artesia Freeway). Manhattan Beach Boulevard and Crenshaw Boulevard provide the primary routes from the two freeways to the campus. The major additional roadways serving the campus are Redondo Beach Boulevard, Prairie Avenue, Hawthorne Boulevard, Western Avenue, Rosecrans Avenue and 182th Street. The area circulation system is shown in Exhibit 6.

Manhattan Beach Boulevard is a four-lane divided roadway classified as a Major Highway in the *County of Los Angeles Highway Plan* with approximately 19,000 ADT along the campus frontage. Crenshaw Boulevard is also a four-lane divided roadway classified as a Major Highway with approximately 26,400 ADT along the campus frontage. Traffic volumes in the study area are shown in Figure 4 in Appendix B).

Traffic service levels were evaluated using the Intersection Capacity Utilization (ICU) methodology for signalized intersections. The ICU methodology focuses on how close an intersection is operating to its capacity (expressed as a percent) and relates operational data to a level of service (LOS) A-F, with Level of Service E being the minimum standard under the County of Los Angeles Congestion Management Program (CMP). The CMP also provides the methodology of which intersections are selected for study (e.g., the project adds 50 or more two way trips in either peak period), specifies when an impact is significant (e. g., LOS is worse than E and the project adds two percent or more to the ICU), what intersection mitigation standard the project must provide (e. g., fix the deficiency or reduce the ICU below the level without the project) and what Transportation Demand Management mitigation measures are required (which vary by the square footage of the project).

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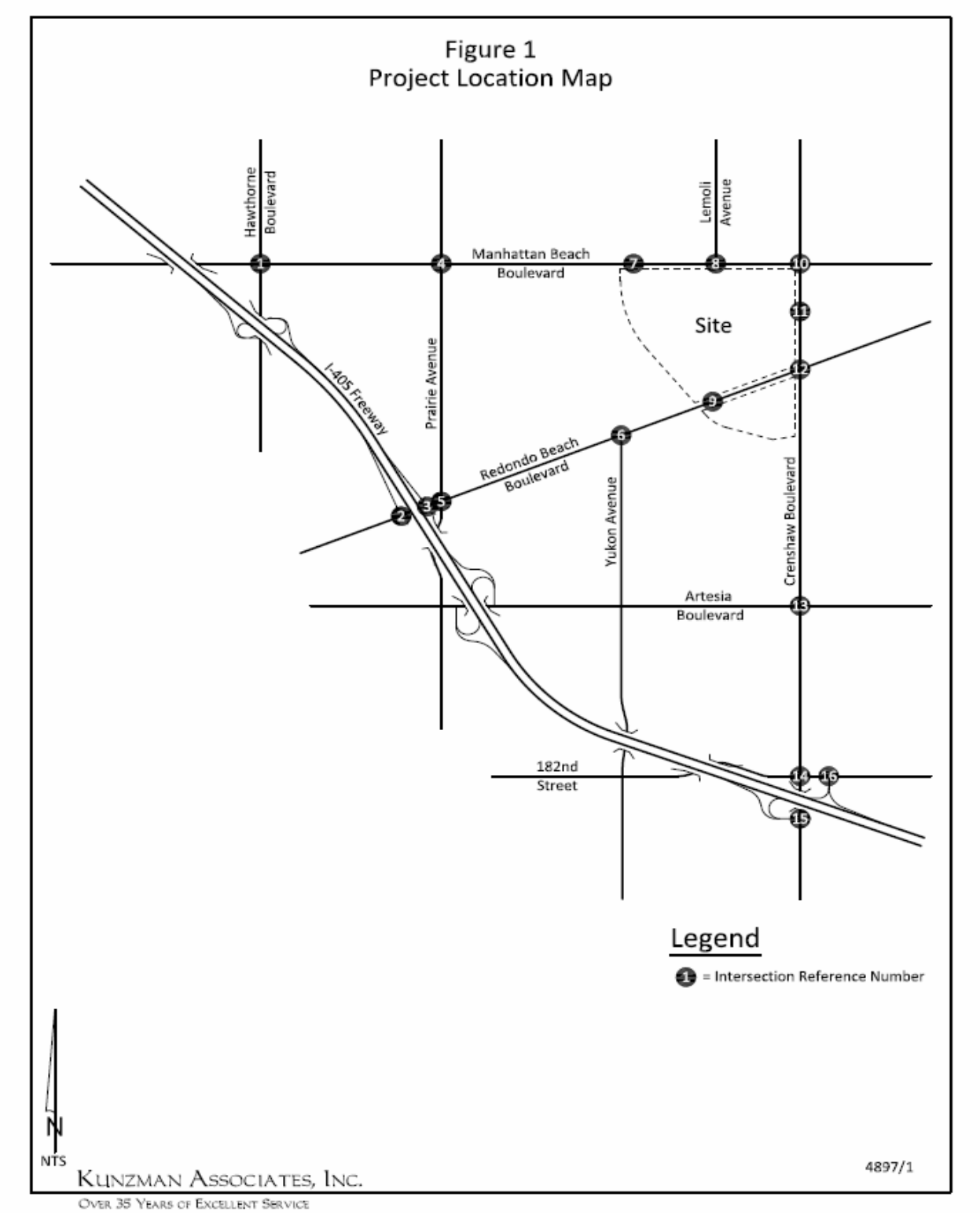
Exhibit 6
Area Circulation System



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Based on the CMP methodology, the traffic study evaluates traffic conditions at twelve intersections and four freeway intersection ramps (Interstate 405 at Redondo Beach Boulevard (NB, SB), Crenshaw Boulevard (SB) and 182th Street (NB)). Existing traffic conditions are acceptable (LOS A - E) at all local intersections, except for two locations (Crenshaw Boulevard (NS) at 182nd Street (EW) - #14 during the pm peak hour and at the Crenshaw Boulevard at Interstate Freeway SB Ramps (EW) - #15 during the am peak hour. ADT volumes on local roadways are shown in Figure 4 in Appendix B.

Table 3.2.1
Existing Traffic Level of Service (Volume-to Capacity, Level of Service)

Intersection	AM Peak		PM Peak	
	V/C	LOS	V/C	LOS
1. Hawthorne Boulevard (NS) at Manhattan Beach Blvd. (EW)	0.816	D	0.797	C
2. I-405 SB Ramps (NS) at Redondo Beach Blvd. (EW)	0.726	C	0.793	C
3. I-405 NB Ramps (NS) at Redondo Beach Blvd. (EW)	0.613	B	0.543	A
4. Prairie Avenue (NS) at Manhattan Beach Blvd. (EW)	0.753	C	0.783	C
5. Prairie Avenue (NS) at Redondo Beach Blvd. (EW)	0.919	E	0.942	E
6. Yukon Avenue (NS) at Redondo Beach Blvd. (EW)	0.720	C	0.670	B
7. El Camino College NW Entrance (NS) at Manhattan Beach Blvd. (EW)	0.468	A	0.523	A
8. Lemoli Avenue (NS) at Manhattan Beach Blvd. (EW)	0.537	A	0.539	A
9. El Camino College SW Entrance (NS) at Redondo Beach Blvd (EW)	0.675	B	0.607	B
10. Crenshaw Boulevard (NS) at Manhattan Beach Blvd. (EW)	0.761	C	0.700	C
11. Crenshaw Boulevard (NS) at El Camino College East Entrance (EW)	0.589	A	0.516	A
12. Crenshaw Boulevard (NS) at Redondo Beach Boulevard (EW)	0.877	D	0.516	D
13. Crenshaw Boulevard (NS) at Artesia Boulevard (EW)	0.891	D	0.855	E
14.Crenahaw Boulevard (NS) at 182nd Street (EW)	0.872	D	0.957	F
15. Crenshaw Boulevard (NS) at I-405 SB Ramps (EW)	1.005	F	1.086	D
16. I-405 NB Ramps (NS) at 182nd Street (EW)	0.675	B	0.848	D
Source: Kunzman Associates, Table 1, Appendix B				

As shown above, the Crenshaw Boulevard/Manhattan Beach Boulevard operates at LOS C during both peak hours Crenshaw Boulevard/Redondo Beach Boulevard operates at LOS D during both peak hours.

Existing average daily traffic (ADT) volumes on area roadways are shown in Figure 4 in Appendix B. Existing traffic volumes were estimated using the peak hour September 2012 traffic counts obtained by Kunzman Associates and the 2011Traffic Volumes on California State Highways, published by the California Department of Transportation (Caltrans).

Existing Pedestrian Access

On-street parking is currently allowed along most of the Manhattan Beach Boulevard campus frontage and along the Crenshaw Boulevard frontage south of Redondo Beach Boulevard (Figure 45 in Appendix C).

Existing sidewalks occur along both sides of Redondo Beach Boulevard and along both sides of Crenshaw Boulevard south of Redondo Beach Boulevard. Sidewalks occur on the northside of Manhattan Beach Boulevard and along the eastside of Crenshaw Boulevard. Because of the frontage roads on campus, there currently are no sidewalks along the campus frontages along Manhattan Beach Boulevard and Crenshaw Boulevard north of Redondo Beach Boulevard.

Existing bus stops are located along both the Manhattan Beach Boulevard and Crenshaw Boulevard frontages (See Figure 46 in Appendix C).

B. Project CMP and CEQA Impacts for Project Traffic/Circulation

In Los Angeles County, a project has a significant CMP traffic impact if the project related increase in the volume to capacity ratio equals or exceeds the thresholds below. These same thresholds are used herein for the traffic CEQA threshold of significance.

Table 3.2.2
Traffic Thresholds of Significance

Significant Impact Threshold for Intersections		
Level of Service	Volume/Capacity	Incremental Increase
C	0.71 to 0.80	0.04 or more
D	0.81 to 0.90	0.02 or more
E/F	0.91 or more	0.01 or more
Source: Kunzman Associates, page 36, Appendix B.		

Buildout of the 2012 FMP in 2020 will generate an additional 4,459 daily trips in the project area, based on a factor of 1.23 trips per FTES (Table 2, Appendix B).

Table 3.2.3
Project Trips (Average Daily Traffic)

College Term	WSCH	Students (FTE)	Total Trips (ADT)	Total Percent Trip Increase
Existing 2011-12	285,901	16,400	20,172	---
Buildout 2020-2021	349,107	20,025	24,631	22.1
Total Increase	63,206	3,625	4,459	
Source: Facilities Planning and Services, September 2012. WSCH = Weekly Student Contact Hours				

The 2012 FMP will generate an additional 4,459 trips in 2020, an increase of 22 percent from existing conditions in 2011-2012.

As stated previously, the campus will generate 4,459 additional daily trips in 2020. These trips will be distributed to the area circulation network, with approximately 22 percent directed south along Crenshaw Boulevard, 18 percent west along Manhattan Beach Boulevard and 27 percent west along Manhattan Boulevard. (Kunzman Associates, Figure 12, Appendix B). Project average daily traffic volumes are shown in Figure 13 in Appendix B.

Existing Plus Project CEQA Traffic Impacts

The Existing Plus Project analysis is required in CEQA because project impacts are identified by comparing the future project environment (i.e. buildout) with existing conditions (i.e. avoiding supplemental factors such as ambient growth and planned improvements) This analysis allows direct comparison of project buildout traffic conditions and 2012 traffic conditions on the existing circulation system. Table 3.2.4 identifies the intersection performance without and with planned improvements (i.e. feasible lane improvements required to improve a deficient LOS to acceptable levels of service and create an insignificant traffic impact with mitigation). Either the project and/or the responsible jurisdiction is required to implement the required lane improvements.

Table 3.2.4
Existing Plus Project Traffic Level of Service (without and **with improvements**)

Intersection	AM Peak		PM Peak	
	V/C	LOS	V/C	LOS
1. Hawthorne Boulevard (NS) at Manhattan Beach Blvd. (EW)	0.819	D	0.807	D
2. I-405 SB Ramps (NS) at Redondo Beach Blvd. (EW)	0.758	C	0.819	D
- With Improvements	**0.691**	**B**	**0.776**	**C**
3. I-405 NB Ramps (NS) at Redondo Beach Blvd. (EW)	0.619	B	0.557	A
4. Prairie Avenue (NS) at Manhattan Beach Blvd. (EW)	0.771	C	0.800	C
5. Prairie Avenue (NS) at Redondo Beach Blvd. (EW)	0.938	E	0.958	E
- With Improvements	**0.898**	**D**	**0.938**	**E**
6. Yukon Avenue (NS) at Redondo Beach Blvd. (EW)	0.753	C	0.699	B
7. El Camino College NW Entrance (NS) at Manhattan Beach Blvd. (EW)	0.562	A	0.626	B
8. Lemoli Avenue (NS) at Manhattan Beach Blvd. (EW)	0.572	A	0.602	B
9. El Camino College SW Entrance (NS) at Redondo Beach Blvd (EW)	0.730	C	0.657	B
- With Improvements	**0.570**	**A**	**0.520**	**A**
10. Crenshaw Boulevard (NS) at Manhattan Beach Blvd. (EW)	0.834	D	0.773	C
- With Improvements	**0.780**	**C**	**0.737**	**C**
11. Crenshaw Boulevard (NS) at El Camino College East Entrance (EW)	0.593	A	0.524	A
12. Crenshaw Boulevard (NS) at Redondo Beach Boulevard (EW)	0.898	D	0.877	D
- With Improvements	**0.858**	**D**	**0.834**	**D**
13. Crenshaw Boulevard (NS) at Artesia Boulevard (EW)	0.921	E	0.980	E
- With Improvements	**0.855**	**D**	**0.933**	**E**
14.Crenahaw Boulevard (NS) at 182nd Street (EW)	0.882	D	1.096	F
- With Improvements	**0.879**	**D**	**0.904**	**E**
15. Crenshaw Boulevard (NS) at I-405 SB Ramps (EW)	1.008	F	0.853	D
16. I-405 NB Ramps (NS) at 182nd Street (EW)	0.689	B	0.871	D

Source: Kunzman Associates, Table 1, Appendix B
With improvements are feasible lane improvements required to improve a deficient LOS to acceptable levels of service and create an insignificant traffic impact with mitigation. Either the project and/or the responsible jurisdiction is required to implement the required lane improvements.

The project has a significant impact at seven of the sixteen intersections in the Existing Plus Project analysis. Four of the six intersections impacted by the project occur on Crenshaw Boulevard. The project impact is Less than Significant with Mitigation Incorporated with the planned improvements and additional improvements required for the project impacts. The intersection performance with project mitigation is listed below.

Each jurisdiction is responsible for the lane improvements for the remaining seven of the intersections where the project does not have a significant effect. (see Table 3 in Appendix B). Existing Plus Project ADT volumes are shown in Figure 16 in Appendix B.

Table 3.2.5
Existing Plus Project Significant Project Impacts (**existing plus project v/c increase**)

Intersection	Without Mitigation		With Mitigation	
	V/C	LOS	V/C	LOS
2. I-405 SB Ramps (NS) at Redondo Beach Blvd. (EW) **- PM Peak (Up 0.026)**	0.819	D	0.776	C
5. Prairie Avenue (NS) at Redondo Beach Blvd. (EW) **- AM Peak (Up 0.019)** **- PM Peak (Up 0.016)**	0.938 0.958	E E	0.898 0.938	D E
9. El Camino College SW Entrance (NS) at Redondo Beach Blvd (EW) **- AM Peak (Up 0.055)**	0.730	C	0.570	A
10. Crenshaw Boulevard (NS) at Manhattan Beach Blvd. (EW) **- AM Peak (Up 0.073)** **-- PM Peak (Up 0.073)**	0.834 0.773	D C	0.780 0.737	C C
12. Crenshaw Boulevard (NS) at Redondo Beach Boulevard (EW) **- AM Peak (Up 0.021)** **-- PM Peak (Up 0.021)**	0.898 0.877	D D	0.858 0.834	D D
13. Crenshaw Boulevard (NS) at Artesia Boulevard (EW) **AM Peak (Up 0.030)** **-- PM Peak (Up 0.023)**	0.921 0.980	E E	0.855 0.933	D E
14.Crenahaw Boulevard (NS) at 182nd Street (EW) **- PM Peak (Up 0.010)**	1.096	F	0.904	E
Source: Kunzman Associates, Table 4, Appendix B.				

Pedestrian Access

Figure 46 in the parking study in Appendix C identifies all perimeter pedestrian pathways on campus associated with buildout of the 2012 FMP. Some sidewalk closures may occur during construction and temporary pathways established as needed. The future internal campus pedestrian access is sown in Figure 48 in Appendix C.

Construction Trips

Construction of the facilities included in the 2012 FMP will occur incrementally until buildout. During construction, approximately 20-50 workers will be onsite daily, while equipment/material deliveries will occur throughout project construction. Typically construction workers would be onsite from 7:00 am to 3:00 pm weekdays. Construction employees will be required to park onsite at locations specified in the construction contract.

Demolition of existing structures onsite and for the Stadium project will require hauling of equipment and materials, removal of earth and demolition materials, and other construction activities. Construction debris from approximately 646,000 OGSF of buildings onsite may total 32,300 cubic yards (10,000 sf buildings equates to 500 cu.yds. debris) which requires approximately 2,153 truck loads (15 cy/truck) for removal. However, these trips occur over a nine year period. Approximately 128,500 cubic yards of earth will also be exported for the Murdock Stadium project. Up to 100 truck trips a day may occur to export the cubic yards projected in approximately 85 working days (i.e. 13 cy/truck).

The most likely truck haul route to reach area freeways from the campus is to use Redondo Beach Boulevard during non-peak hours. Using Manhattan Beach Boulevard directs truck hauling along a narrower street with more adjacent residential uses. However, the ramps at Hawthorne Boulevard allow both north or southern access at one location, as opposed to using Redondo Beach Boulevard (northbound only) and Artesia Boulevard (southbound only) to access Interstate 405.

A haul route that uses Redondo Beach Boulevard, Prairie Avenue and Artesia Boulevard to travel southbound is more circuitous, requiring several turn movements in short distances. A route that uses Redondo Beach Boulevard and Crenshaw Boulevard is direct and has northbound and southbound access at the freeway. However, the route is the longest of the three routes and is also through residential areas in Torrance. Depending on the origin of the export from campus, one of the three routes may be

preferable to the others. However, using all three routes has the advantage of distributing truck traffic to all routes instead of having a sustained impact on an individual route for the construction period.

Special moving permits are also required for moving large loads or equipment on local streets and state highways. Debris hauling, construction worker or construction-related trips are not anticipated to impact the circulation network but can cause local congestion in specific areas on campus. Implementation of a truck hauling plan that excludes hauling during peak hours is required below.

Other potential construction impacts are temporary lane closures, temporary sidewalk closures, temporary loss of parking and changes in campus vehicular and pedestrian routes. Student pedestrian routes on campus will be impacted by some construction activities.

As stated previously, the project impact is Less than Significant with Mitigation Incorporated. All of the intersections impacted by the project operate at LOS E or above.

Operational Hazards

All major intersections closest to the campus are signalized. None of the intersections are particularly dangerous. Adequate emergency access to the project site is available at buildout. The project includes a new signalized intersection at the NW Entrance at Manhattan Beach Boulevard.

Truck haul routes will be decided in consultation with the adjacent cities. As discussed above, using all three potential routes to area freeways is advantageous to reduce trips for individual areas. The routes will be selected when construction contracts for individual projects are initiated. The Lot F Channel Parking Structure, Stadium and South Cluster projects (i.e. Music/Theater, Arts, Physical Science) are the three largest project with hauling activities. Since truck hauling will be restricted from peak hour periods, a Less than Significant traffic impact at area and freeway intersections is anticipated.

Student Pedestrian Paths/ADA Requirements

Pedestrian activity on campus is heavier in interior areas away from the parking lots during changes in classes and is less congested from the parking lots to the central campus facilities. The project will comply with all applicable Americans with Disability

Act (ADA) requirements. Plans to comply with ADA requirements will be included in the Internal Circulation Plan (see Section 3.3) and Circulation Recommendations are included in Figure 46 in the parking study in Appendix C. New south side sidewalks are proposed along portions of the Manhattan Beach Boulevard campus frontage, along the east side campus frontage west of the parallel frontage road west of Crenshaw Boulevard, along the Westside of Crenshaw Boulevard along Lot L, and along both sides of the Redondo Beach Boulevard camp[us frontage (Figure 48, Appendix C).

Pedestrian access and circulation will be greatly improved by the proposed sidewalks. Maintaining safe pedestrian access near construction areas is needed. Prior to construction in any specific area, the pedestrian access routes should be reviewed to minimize conflicts between pedestrians and construction equipment or activities.

With the recommended mitigation measures listed below, the project traffic, construction and pedestrian impacts are mitigated to Less than Significant Impact With Mitigation Incorporated.

In the CEQA Guidelines, feasible mitigation measures means “capable of being accomplished in a successful manner within a reasonable period of time, taking into account economic, environmental, legal, social and technological factors” (Section 15364).

Since there is no adopted methodology for assigning mitigation costs to responsible parties in CEQA or in the Existing Plus Project methodology, the project’s mitigation costs herein are assigned based on the CMP Fair Share methodology. There is little difference in the project impacts on any individual intersection between the Existing Plus Project and CMP methodology. A comparison of the volume/capacity changes in Table 4 and Table 8 in Appendix B for an intersection results indicates the Fair Share analysis understates the trips and costs slightly (within a few thousands of volume/capacity (e.g. 0.001–0.008) compared to an Existing-Plus Project impact analysis in five of the eight intersections impacted by the project. The Fair Share analysis overstates the project mitigation cost slightly in the remaining three intersections. The overall effect on differences in funding between the two differing methodologies for the project is negligible.

Fair Share Analysis

A Fair Share Analysis estimates the cost of intersection improvements identified in the traffic study based on the improvements required, civil engineering plans and current construction index costs. The projected total cost for the improvements identified in this study is $490,000.

The project's fair share of the total improvement cost is $336,085. Of the total, the College would pay the total cost for the new traffic signal ($150,000) at the College NW Entrance at Manhattan Beach Boulevard. The total cost for the required improvements at Crenshaw Boulevard and 182nd Street is $255,000, with the College's proportion being $130,815. Improvements at the College SW Entrance at Redondo Beach Boulevard cost $50,000 and the college proportion is $35,000. The remaining proportion for the College is $20,270 for offsite intersection improvements at seven intersections (Table 9, Appendix B).

If agreeable to the City of Torrance, the City of Gardena and the County of Los Angeles, the College will provide early funding (i.e. as opposed to buildout of the Master Plan) of $333,670 for the required improvements at Manhattan Beach Boulevard/NW Entrance, the SW Entrance at Redondo Beach Boulevard, and at Crenshaw Boulevard and 182nd Street. With early funding, the improvements may be completed concurrently with the opening of the new Lot C Parking Structure (i.e. approximately June 2015) and with the completion of the Lot F Parking Structure expansion (2016). In return, the City of Torrance shall agree to install the required improvements at 182nd Street and Crenshaw Boulevard and Crenshaw Boulevard at Artesia Boulevard by August 2016. The City of Gardenia shall also agree to install the required restriping improvements at the locations under its jurisdiction by August 2016. All estimated costs and improvements are listed in Table 9: Project Fair Share Traffic Contributions in Appendix B.

An agreement would assure early installation of the required improvements at the most critical locations requiring improvements due to the project. The 2012 level of service (LOS) for the Crenshaw Boulevard/182nd Street intersection is LOS F during the pm peak hour and it will improve to LOS E with improvements. A Memorandum of Understanding (MOU) is an appropriate legal instrument to secure the agreement between the responsible parties. (Caltrans is not part of the agreement for the required I-405 ramp improvements at Redondo Beach Boulevard).

C. Mitigation Measures for Project CEQA Traffic Impacts

TR-01: Contractors shall submit traffic handling plans to Facilities Planning and Services and to the Campus Police Department prior to commencement of demolition or grading. The plans and documents shall comply with the *Work Area Traffic Control Handbook (WATCH)*. Facilities Planning and Services shall approve the final plans and monitor compliance.

TR-02: Demolition and construction contracts shall include plans for temporary sidewalk closures, pedestrian safety on adjacent sidewalks, and vehicle and pedestrian safety

along the project perimeter, along construction equipment haul routes on campus and near onsite construction parking areas. These plans shall be reviewed by the Campus Police Department and approved by Facilities Planning and Services. Facilities Planning and Services shall monitor compliance.

TR-03: Construction contractors shall post a flag person at locations near a construction site during major truck hauling activities to protect pedestrians from conflicts with heavy equipment entering or leaving the project site. Facilities Planning and Services shall monitor compliance.

TR-04: Each project construction site shall be adequately barricaded with temporary fencing to secure construction equipment, minimize trespassing, vandalism, short-cut attractions, and reduce hazards during demolition and construction. Facilities Planning and Services shall monitor compliance.

TR-05: The sight distance at each project access on campus shall be reviewed with respect to California Department of Transportation standards in conjunction with the preparation of the landscape and street improvement plans. Facilities Planning and Services shall monitor compliance.

TR-06: The College shall implement onsite traffic signing and striping in conjunction with detailed construction plans for the project. Facilities Planning and Services shall monitor compliance.

TR-07: The College shall implement the Transportation Demand Management mitigation measures required by the County of Los Angeles for projects of 100,000 or more square feet of floor space. Facilities Planning and Services shall monitor compliance.

TR-08: Prior to 2020, the California Department of Transportation shall implement the lane improvements at the Interstate 405 SB Ramps/Redondo Beach Boulevard identified in Table 9 of the traffic study. The college shall contribute its fair share cost for these improvements (less any offsets from gas tax funds for roadway improvements). The Department of Transportation shall monitor compliance.

TR-09: Prior to Year 2020, the County of Los Angeles shall implement the lane improvements identified in Table 9 of the traffic study for the Prairie Avenue/Redondo Beach Boulevard intersections and Crenshaw Boulevard/Manhattan Beach Boulevard through their *Capital Improvement Program*. The college shall contribute its fair share cost for these improvements (less any offsets from gas tax funds for roadway

improvements). The Public Works Department of the County of Los Angeles shall monitor compliance.

TR-10: Prior to 2020 the City of Torrance shall implement the lane improvements identified in Table 9 of the traffic study for the Crenshaw Boulevard/Redondo Beach Boulevard, Crenshaw Boulevard/Artesia Boulevard, and Crenshaw Boulevard/182nd Street intersection through their *Capital Improvement Program*. The college shall contribute its fair share cost for these improvements (less any offsets from gas tax funds for roadway improvements). The Engineering Department of the City of Torrance shall monitor compliance.

TR-11: Prior to 2020 the College shall implement the lane and new traffic signal improvements at the El Camino College NW Entrance/Manhattan Beach Boulevard intersection identified in Table 9 of the traffic study. The Public Works Department of the County of Los Angeles shall monitor compliance.

TR-12: Prior to 2020 the College shall implement the lane improvements at the El Camino College SW Entrance/Manhattan Beach Boulevard intersection identified in Table 9 of the traffic study. The Engineering Department of the City of Torrance shall monitor compliance.

TR-13: The College shall consult with the effected Cities on a Truck Route Plan for all major earth hauling activities with more than eighty (80) trucks per day. Hauling of earth materials shall only occur between 9:00 am and 2:00 pm Monday through Friday and between 8:00 am to 5:00 pm on Saturdays to avoid peak hour traffic. Light duty trucks with a weight of no more than 8,500 pounds are exempted from this restriction. Facilities Planning and Services shall ensure compliance.

TR-14: The College shall implement the proposed onsite circulation recommendations included in Figure 29 of the traffic study concurrent with adjacent development on campus. Facilities Planning and Services shall monitor compliance.

D. Level of Significance for Project Traffic/Circulation Impacts

Less than Significant with Mitigation Incorporated.

E. Cumulative Conditions for Traffic/Circulation

Three other development projects in the City of Torrance in the traffic study area will generate 3,324 ADT (Table 5, Appendix B).

The traffic analysis concluded the Existing Plus-Project Plus Cumulative Conditions are identical to the Existing Plus Project Conditions.

F. Cumulative Impacts for Traffic/Circulation

The projected level of service for cumulative conditions remains the same as for Existing Plus Project conditions and the project impacts are the same. Tables 3.2.4 and 3.2.5 also apply to the cumulative scenario. See Table 6 in Appendix B.

G. Mitigation Measures for Cumulative Traffic/Circulation

The mitigation measures required in Section C (TR-01 TR-014) are also required in the cumulative scenario. No additional mitigation measures are required due to the three "other development" projects. Each of the three projects will be subject to its own CEQA clearances from the City of Torrance.

I. Level of Significance for Cumulative Traffic/Circulation Impacts

Less than Significant with Mitigation Incorporated.

CONGESTION MANAGEMENT PROGRAM GUIDELINES

The CMP traffic methodology for determining traffic impacts differs from that required for CEQA analysis. While similar language is used in both methodologies, the traffic impact may differ under the two analyses. The legal status of Congestion Management Program Guidelines in CEQA analysis is uncertain based on a 2010 Appellate ruling.

The Sunnyvale West Neighborhood Association, etc al, v. City of Sunnyvale City Council (Sixth Appellate District, Santa Clara County), December 16, 2010 ruling stated that the CMP methodology was not the proper methodology for determining CEQA project or cumulative impacts. But, the ruling also affirmed that the CMP analysis could be included in CEQA documents if the Lead Agency desires to do so.

However, the CEQA Guidelines Initial Study has not been revised to exclude CMP issues. Therefore, a CMP analysis is included herein because it is the proper methodology for analysis of project impacts on CMP intersections. Until the Department of Natural Resources, the State Clearinghouse or additional court rulings clarify how the CMP analysis should be used in CEQA documents, this approach will continue to be used widely. In summary, the CMP analysis determining project traffic impacts by comparing pre- and post project conditions. Ambient growth and if appropriate, other development project trips, are included in the pre-project analysis. An ambient growth

rate of 0.21% per year (Congestion Management Program for Los Angeles) or approximately 2.0 percent for eight years was used in the 2020 traffic In contrast, the Sunnyvale ruling states that a project traffic impact is a comparison between post-traffic conditions and existing traffic conditions only (i.e. no growth rate or other projects).

J. Project CMP Impacts for Traffic/Circulation

2020 Without-Project and 2020 With-Project Level of Service is shown below. With improvements are feasible lane improvements required to improve a deficient LOS to acceptable levels of service and create an insignificant traffic impact with mitigation. Either the project and/or the responsible jurisdiction is required to implement the required lane improvements.

The 2020 Level of Service declines for one of the peak periods for seven intersections.

Table 3.2.6
2020 Without-Project and With-Project Traffic Level of Service (volume/capacity and LOS)

Intersection	Without Project		With Project	
	AM Peak	PM Peak	AM Peak	PM Peak
1. Hawthorne Boulevard (NS) at Manhattan Beach Blvd. (EW)	0.828-D	0.810-D	0.831-D	0.820-D
2. I-405 SB Ramps (NS) at Redondo Beach Blvd. (EW) **-With Improvements**	0.740-C **0.676-B**	0.808-D **0.766-C**	0.772-C **0.704-C**	0.833-D **0.789-C**
3. I-405 NB Ramps (NS) at Redondo Beach Blvd. (EW)	0.622-B	0.533-A	0.627-B	0.568-A
4. Prairie Avenue (NS) at Manhattan Beach Blvd. (EW)	0.766-C	0.797-C	0.784-C	0.812-D
5. Prairie Avenue (NS) at Redondo Beach Blvd. (EW) **- With Improvements**	0.937-E **0.900-E**	0.959-E **0.943-E**	0.956-E **0.913-E**	0.975-E **0.954-E**
6. Yukon Avenue (NS) at Redondo Beach Blvd. (EW)	0.734-C	0.683-C	0.767-C	0.712-C
7. El Camino College NW Entrance (NS) at Manhattan Beach Blvd. (EW)	0.476-A	0.532-A	0.570-A	0.635-B
8. Lemoli Avenue (NS) at Manhattan Beach Blvd. (EW)	0.546-A	0.548-A	0.581-A	0.668-B
9. El Camino College SW Entrance (NS) at Redondo Beach Blvd (EW) **- With Improvements**	0.688-B **0.535-A**	0.618-B **0.532-A**	0.743-C **0.580-A**	0.618-B **0.530-A**
10. Crenshaw Boulevard (NS) at Manhattan Beach Blvd. (EW) **- With Improvements**	0.776-C **0.721-C**	0.713-C **0.635-B**	0.849-D **0.794-C**	0.784--C **0.749-C**
11. Crenshaw Boulevard (NS) at El Camino College East Entrance (EW)	0.599-A	0.524-A	0.603-A	0.532-A
12. Crenshaw Boulevard (NS) at Redondo Beach Boulevard (EW) **- With Improvements**	0.895-D **0.855-D**	0.871-D **0.832-D**	0.915-E **0.874-D**	0.893-D **0.820-D**
13. Crenshaw Boulevard (NS) at Artesia Boulevard (EW) **- With Improvements**	0.905-E **0.846-D**	0.971-E **0.930-E**	0.934-E **0.867-D**	0.995-E **0.948-E**
14.Crenahaw Boulevard (NS) at 182nd Street (EW) **- With Improvements**	0.885-D **0.881-D**	1.104-F **0.906-E**	0.896-D **0.896-D**	1.114-F **0.919-E**
15. Crenshaw Boulevard (NS) at I-405 SB Ramps (EW)	1.021-F	0.861-D	1.023-F	0.866-D
16. I-405 NB Ramps (NS) at 182nd Street (EW)	0.685-B	0.872-D	0.669-B	0.884-D

Source: Kunzman Associates, Tables 6, 7, Appendix B
With improvements are feasible lane improvements required to improve a deficient LOS to acceptable levels of service and create an insignificant traffic impact with mitigation. Either the project and/or the responsible jurisdiction is required to implement the required lane improvements.

The project has a significant effect at seven intersections. These are the same intersections identified in the Existing-Plus Project analysis. With mitigation, the project impacts will be Less than Significant with Mitigation Incorporated.

Table 3.2.7
2020 Significant Project Traffic Impacts (**with project v/c increase**)

Intersection	Without Mitigation		With Mitigation	
	V/C	LOS	V/C	LOS
2. I-405 SB Ramps (NS) at Redondo Beach Blvd. (EW) **- PM Peak (Up 0.025)**	0.833	D	0.789	C
5. Prairie Avenue (NS) at Redondo Beach Blvd. (EW) **- AM Peak (Up 0.019)** **- PM Peak (Up 0.016)**	0.956 0.975	E E	0.913 0.954	E E
9. El Camino College SW Entrance (NS) at Redondo Beach Blvd (EW) **- AM Peak (Up 0.055)**	0.743	C	0.580	A
10. Crenshaw Boulevard (NS) at Manhattan Beach Blvd. (EW) **- AM Peak (Up 0.073)** **-- PM Peak (Up 0.071)**	0.849 0.784	D C	0.794 0.749	C C
12. Crenshaw Boulevard (NS) at Redondo Beach Boulevard (EW) **- AM Peak (Up 0.020)** **-- PM Peak (Up 0.022)**	0.915 0.893	E D	0.874 0.850	D D
13. Crenshaw Boulevard (NS) at Artesia Boulevard (EW) **AM Peak (Up 0.029)** **-- PM Peak (Up 0.024)**	0.934 0.995	E E	0.867 0.948	D E
14.Crenahaw Boulevard (NS) at 182nd Street (EW) **- PM Peak (Up 0.010)**	1.114	F	0.919	E
Source: Kunzman Associates, Table 8, Appendix B.				

K. Recommended Conditions of Approval for Project Traffic and Circulation CMP Impacts

The recommended Conditions of Approval for CMP impacts do not differ from the mitigation measures required in Section 3 (TR-01 to TR-14).

L. Level of Service with Conditions of Approval for Project CMP Traffic/Circulation Impacts

Less-than-Significant Impact with Recommended Conditions of Approval

M. Cumulative Traffic/Circulation CMP Impacts

The projected level of service for cumulative conditions remains the same as for Existing-Plus Project conditions and the project CMP impacts are the same. Tables 3.2.4 and 3.2.5 also apply to the cumulative CMP scenario.

N. Recommended Conditions of Approval for Cumulative Traffic and Circulation CMP Impacts

The mitigation measures required in Section C (TR-01 TR-014) are also required as Conditions of Approval in the CMP cumulative scenario. No additional mitigation measures are required due to the three "other development" projects. Each of the three projects will be subject to their own CEQA clearances from the City of Torrance.

O. Level of Significance with Cumulative CMP Traffic/Circulation Conditions of Approval

Less-than-Significant Impact with Recommended Conditions of Approval.\

3.3 PARKING

A. Existing Conditions for Campus Parking Supply

Kunzman Associates prepared a parking study for the project. The report is summarized herein and the complete report is included as Appendix C.

There are 4,917 available parking spaces available on campus, of which 80 percent are student spaces. The Lot F Channel Parking Structure includes 1,747 and the Lot H Parking Structure has 1,225 spaces. (However, only 1,634 spaces are currently available in the Lot F Channel Parking Structure). Parking utilization on campus is approximately 85 percent of the available parking during the weekday.

Approximately 3,729 spaces were reserved for students, 790 spaces reserved for faculty and the remainder available for visitor, handicapped, reserved and other campus uses. Daily campus parking passes cost $2 and parking passes for the Fall and Spring semesters cost $35. Summer session passes cost $20.

The college has approximately 1,320 employees, including 295 full-time, 510 part-time faculty, 33 administrators and 6 counselors. In additional 456 classified, managers, SSP, police, (e.g. student, temporary classified, and casual employees) provide additional office, classroom and lab assistance. The total head count per payroll records in October 2012 was 1,320 employees.

Parking is restricted in the El Camino Village residential area north of campus north of Manhattan Beach Boulevard. While permits are exempt, no parking occurs from 7:30 am to 9 pm Monday – Thursday and from 7:30 am to 1:00 pm Friday except holidays.

On-street parking is permitted on both sides of Manhattan Beach Boulevard along the campus frontage. 97 spaces are available on the north side and 68 spaces on the south side for a total of 165 spaces.

Signs posted along Manhattan Beach Boulevard between Prairie Avenue and the Dominquez Channel (e.g. off-campus) are “No Parking Anytime Commercial Vehicles” and “No Parking 11 PM - 6AM”. The estimated parking spaces along the northside of Manhattan Beach Boulevard are 110 spaces and along the south side of Manhattan Beach Boulevard are 104 spaces. On the north side, 51 spaces are east of Doty Street and on the south side 49 spaces are east of Doty Avenue. These “easterly” spaces will be more heavily used because they minimize walking distance to campus.

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Table 3.3.1
2012 Campus Parking Supply

Type of Space	A	B	C	D	E	F Upper	F Lower	G	H	J	K	L	On Street[2]	Total
Student						704	747	69	1,009	0	0	1,200		
Staff	9	43	192	137	32	0	0	12	105	111	112	37		
Other[1]	35	5	41	45	0	0	0	5	35	23	32	12		
Subtotal[2]	44	48	233	182	32	704	747	86	1,149	134	144	1,249	165	4,917

Source: El Camino 2012 Facilities Master Plan Parking Study, Table 1, Appendix C.

1 Includes 77 handicap spaces, 45 visitor spaces, 56 reserved spaces and the remainder other types of parking spaces.

2 97 spaces occur on the northside of Manhattan Beach Boulevard and 68 spaces on the southside for a total of 165 campus frontage spaces.

On September 19, 2012 there were 4,752 spaces on campus and 165 spaces along the Manhattan Beach Boulevard campus frontage, for a total of 4,917 spaces.

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B. Project Impacts on Campus Parking Supply

The threshold of significance used for parking is whether the project parking demand exceeds the parking supply on campus during the daytime during the regular campus class schedule and/or if the project does not meet the District's parking standard of providing 0.28 spaces per FTES. The parking standard will be modified periodically based on parking surveys and analysis by qualified traffic engineers.

The geographical area used for identification of project parking impacts is the 126-acre campus and the streets adjacent to the campus boundaries.

Two new parking projects are proposed in the 2012 FMP. The Lot F Channel Parking Structure will be renovated and 610 additional parking spaces added for a total of 2,357 spaces. The North Parking Structure will add 700 to 800 spaces. Project parking impacts due to construction of the Lot F Channel Parking Structure are evaluated in Section 3.9.

With the two new proposed parking structure projects, there will be approximately 6,568 spaces on campus with buildout of the 2012 FMP. This estimate includes the loss of parking due to construction of the Shops, the new North Parking Structure, and the loss of parking in the campus interior. The table below provides a preliminary projection of parking demand and supply. With factors and assumptions used herein, the future surface parking and structured parking proposed on campus will meet or exceed the parking demand.

Construction Employee Parking. Construction activities will result in changes in the availability of parking on campus during demolition or construction of new facilities and during resurfacing and redesign of the existing parking lots. Access routes to the available parking lots may also be altered. Temporary signage will be required to direct vehicles to available parking lots throughout construction. During periods of major construction, information on parking lot availability should be available on the campus website. An adequate parking supply will be maintained for the campus throughout the construction period and the project impact on construction parking is a Less than Significant Impact With Mitigation Incorporated.

Interim Student Parking During Construction. Construction activities will result in changes in the availability of parking spaces on campus during demolition or construction of new facilities and during resurfacing and redesign of the existing parking lots. Access routes to the available parking lots may also be altered. Temporary signage will be required to direct vehicles to available parking lots throughout construction. Literature indicating parking lot availability should be distributed to

registrants during each campus term during periods of major construction. An adequate parking supply will be maintained for the campus throughout the construction period. Pedestrian pathways and signage may also need to be altered during construction periods in specific areas.

Interim student parking is essential during the period when portions of the Lot F Channel Parking Structure will be closed for renovation or new construction. A three-phase construction program would result in the need for approximately 545 interim spaces in other locations on campus during the week daytime. The parking utilization in some lots may have surplus capacity to accommodate some of the loss of parking in the Lot F Parking Structure. However, students need accurate information on a weekly basis to know where parking is available. The provision for temporary additional parking during Lot F construction is discussed in Section 3.9

Table 3.3.2
2020 Parking Demand and Supply

Descriptor	Year	
	2012	2020
Full Time Equivalent Students (FTES)	16,400	20,025
Existing Parking Demand by Parked Vehicles (September 18, 2012)[1]	4,634	--
Derived Parking Ratio (September 18, 2012)	0.28	--
2020 Parking Ratio (Parked Vehicles/FTES)	--	0.28
2020 Parking Demand Projection (Parked Vehicles)	--	5,607
Parking Spaces Provided (without Lot C Parking Structure)[2]	4,917	5,096
Additional Parking Spaces Required in 2020	-	524
Lot C Parking Structure (Three Levels)	-	700
Lot F Parking Structure (Third Level)	-	700
New Parking Lot I Spaces (North of Student Services Center)	-	72
2020 Future Parking Spaces Provided	--	6,568
2020 Parking Over Supply	--	961
Added Spaces for 90% Utilization	--	657
2020 Net Loss/Gain for Campus Police Not Moving from Lot K (22)	--	0
2020 Adjusted Parking Surplus	--	304

Source: Kunzman Associates, Table 18, Appendix C.
1 Existing parking utilization was 94 percent of total available spaces on September 18, 2012
2 Does not include street parking along Manhattan Beach Boulevard along campus edge.

Based on a recommended parking demand factor of 0.28 spaces per FTEs, the parking demand at buldout of the 2011 FMP in 2020 is 5,607 spaces. The projected supply of 6,568 spaces in 2020 results in a utilization rate of 86 percent. This rate provides excess surplus for adequate circulation of vehicles searching for open parking spaces and the normal fluctuations in parking demand due to campus activities. However, the distribution of parking among students, staff and other groups may require adjustments.

The demand and supply of parking spaces may not be sufficient during some construction periods. Approximately 537 spaces in the Lot F Channel Parking Structure will be unavailable for up to nine months for two years (Table 3.9.1). The projected deficit is approximately 300 spaces in 2012 – 2013 and 150 spaces in 2013 – 2014.

While revising the phasing of some projects in the master plan and reallocating spaces between students and faculty may provide some additional spaces, the total parking demand during Lot F construction cannot be met on campus. The recommended mitigation measures, which will provide some additional parking spaces during the Lot F project construction, include parking along Manhattan Beach Boulevard west of the Dominquez Channel to Prairie Avenue.

The Department of Public Works of the County of Los Angeles would need to concur with increased student parking along Manhattan Beach Boulevard from Prairie Avenue to the Dominguez Channel and additional safety measures may be required (e.g. red curbs and enhanced pedestrian crossings). This will increase available parking near campus during Lot F construction. Temporary construction parking is discussed in additional detail in Section 3.9 B. No significant impact on offsite residential areas in El Camino Village or other areas adjacent to the campus is anticipated.

With the recommended mitigation measures below and in Section 3.9.3, the project impacts on parking at buildout are Less than Significant with Mitigation Incorporated. The project impact on parking during Lot F construction is not fully mitigated during the first four weeks of each semester, and is Unavoidable Adverse (See Section 3.9).

C. Mitigation Measures for Project Parking Impacts

PK-01: The College shall install a total of 6,264 parking spaces at buildout of the 2012 Facilities Master Plan and maintain a minimum ratio of 0.28 spaces per FTES. A parking space utilization rate of equal or less than 90 percent is recommended for day enrollment four weeks into the fall semester. The rate shall be evaluated every three-years. Facilities Planning and Services shall monitor compliance.

PK-02: A temporary parking program shall be implemented during the Lot F Parking Structure construction that results in less than a ninety-five (95) percent parking space utilization on campus weekdays. A communication program identifying available parking lots on campus shall also be implemented during the Lot F construction period. Facilities Planning and Services shall monitor compliance.

PK-03: The College shall offer instant rebates on purchase of new monthly Discount Bus Passes for students during any construction phase of the Lot F Channel Parking Structure when the FTES estimates and the parking factor of 0.28 spaces per FTES is exceeded. The offer days and the discount (e.g. 10 percent or more) shall be included in campus publications, the campus website, posters and in the communication program required by PK-02. All costs shall be borne by the College. Facilities Planning and Services shall monitor compliance.

PK-04: If parking projections indicate the need for temporary off-campus parking spaces during Lot F Channel Parking Structure construction, the College shall enter into short-term parking agreements with businesses or churches with surplus daytime surface parking east of Crenshaw Boulevard. Other options include short-term parking space rental in areas more removed from the campus with shuttle service to campus during the peak morning and evening hours. Facilities Planning and Services shall ensure compliance.

PK-05: The College shall update parking, pedestrian, circulation and signage plans regularly to address direct and indirect public safety needs for parking on campus during the construction period. Construction employee parking areas shall be identified and the changing parking demands created by construction, increased student enrollments, and new building locations projected to balance parking demand and supply. Facilities Planning and Services shall ensure compliance.

PK-06: The College shall implement the following recommendations: (1) preferential carpool parking permits and spaces, (2) Bicycle racks and storage lockers, (3) if needed, restripe/redesign existing parking lots for greater efficiency and (4) create

carpool and motorcycle parking permits. Facilities Planning and Services shall monitor compliance.

PK-07: An Internal Circulation Plan shall be prepared based on the 2012 Facilities Master Plan. The plan shall specify all parking areas, parking regulations, public bus stops, pathways, shuttle stops, vanpool spaces, handicapped spaces, emergency vehicle access and signage within the campus needed for buildout of the 2012 Facilities Master Plan. The Plan shall comply with all requirements of the American Disabilities Act. All recommendations of the approved *Internal Circulation Plan* shall be included in construction contracts and implemented. Facilities Planning and Services shall monitor compliance.

PK-08: The college shall discuss increased parking along Manhattan Beach Boulevard from Prairie Avenue to the Dominquez Channel during the Lot F Parking Structure construction with the County of Los Angeles Department of Public Works. Any mutually agreed on improvements required for signage, parking prohibitions near intersecting streets or driveways (i.e. red curbs) and improved pedestrian crossing signage shall be financed by the college. Facilities Planning and Services shall monitor compliance.

D. Level of Significant for Project Parking Impacts

Less than Significant with Mitigation Incorporated at project buildout.

E. Cumulative Conditions for Parking Supply

No additional projects have been identified in the project area.

F. Cumulative Impacts for Parking Supply

No cumulative impacts have been identified.

G. Mitigation Measures for Cumulative Parking Supply Impacts

None are required.

H. Level of Significance for Cumulative Parking Supply Impacts

Not applicable.

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3.4 AIR QUALITY EMISSIONS

A. Existing Conditions for Air Quality

Air quality studies for the project were prepared by Mestre Greve Associates and are summarized herein. The complete reports are included in Appendix D.

The campus is located in Source Receptor Area 3: Southwest Los Angeles County Coastal (SCAQMD). The CEQA Air Quality Handbook and other SCAQMD publications specify methods and regulations for evaluation of air quality impacts in CEQA documents.

The 2011 California Emission Estimator Model (CalEEMod) will be used to assess project air quality impacts, which provides data on both operational and construction air quality pollutants. The model data outputs are included as Appendix D.

CalEEMod calculates air emission from land sources using California Air Resources Board's (CARB) EMFACAC2007 model for on-road vehicle emissions and the OFFROAD2007 model for off-road vehicle emissions. Project construction emissions may occur for building phases, such as grading. The CalEEMod emission calculations assume the use of many standard construction practices, including compliance with SCAQMD Rule 403 (Fugitive Dust) to minimize fugitive dust emissions. Rule 403 is mandatory for all construction projects. The model assumes watering of exposed surfaces and unpaved roads three times daily, which can reduce PM^{10} and $PM^{2.5}$ dust emissions by 61 percent. The state and federal pollutant emission standards are listed in Table 3.4.1.

This section includes the current air quality monitoring data and provides analysis of the projected emissions projections for buildout of the 2012 FMP. The analysis consists of three primary components: (1) Estimation of existing campus emissions for a student population of 16,400 FTES, (2) Projection of 2012 FMP buildout emissions for 20,025 FTES, and (3) Estimation for construction emissions for each preliminary demolition and construction phase of the project.

A.1. Monitored Air Quality

Air quality at any site is dependent on the regional air quality and local pollutant sources. Regional air quality is determined by the release of pollutants throughout the air basin. The SCAQMD has divided the SCAB into 38 air-monitoring areas with a designated ambient air monitoring station in most areas. The closest air quality monitoring stations for the campus are the Los Angeles-Westchester Parkway and

Compton monitoring stations. Some data is monitored at one station that is not available at the other station. Data for both stations in included in Appendix D (Tables 3, 4) but only the Compton station data is included as Table 3.4.1. This station is more representative of the campus area because the Los Angeles International Airport is near the Westchester station.

Table 3.4.1 lists the air quality levels at the Compton station for the past four years. Data is not available for 2012. The air quality data monitored were obtained from the CARB data website.

The pollutants of primary concern are Ozone (O_3), Nitrogen Dioxide (NO_2) and Particulate Matter (PM_{10} and $PM_{2.5}$).

Ozone is a secondary pollutant and is not directly emitted. Ozone is the result of chemical reactions occurring in bright sunlight between volatile organic compounds (VOC), or reactive organic gasses (ROG)) and nitrogen oxides (NO_x). Sunlight and hot weather cause ground-level ozone to form in the air. Known as a summertime air pollutant, ground-level ozone is the primary constituent of smog. Numerous scientific studies have linked ground-level ozone exposure to a variety of health problems and detrimental effects on plants and ecosystems.

Nitrogen Dioxide is a combination of primarily NO and NO_2. Nitrogen gas is normally relatively inert (nonreactive) and comprises 80 percent of the air. At high temperatures and certain conditions, it combines with oxygen forming several gaseous compounds called nitrogen oxides (NO_x). Nitrogen and Nitrogen Dioxide are the two most important compounds. Nitric Oxide is converted to Nitrogen Dioxide in the atmosphere. Nitrogen Dioxide is a red-brown pungent gas. Nitrogen Dioxide is toxic to various animals and humans.

Particular matter includes aerosol and solid particles varying in size and composition. Of particular concern are particles smaller than 10 microns in diameter (PM_{10}) and smaller than or equal to 2.5 microns ($PM_{2.5}$). Smaller particles can penetrate deeper into the lungs than large particles and impact the respiratory system. Short-term exposure is associated with respiratory stems and long-term exposure is associated with chronic respiratory disease.

Table 3.4.1
Air Quality Levels in SRA 3 (Compton Monitoring Station)

Pollutant	California Standard[5]	National Standard[5]	Year	% Msrd[1]	Max. Level	Days State Standard Exceeded[2]	Days National Standard Exceeded[2]
Ozone	>0.09 ppm	None	2011	98	0.082	0	n/a
1 Hour			2010	87	0.081	0	n/a
Average			2009	98	0.104	2	n/a
			2008	0	0.056	0	n/a
Ozone	>0.070 ppm	None	2011	92	0.065	0	0
8 Hour			2010	87	0.062	0	0
Average			2009	98	0.087	1	1
			2008	0	0.033	0	0
CO	20 ppm	35 ppm	2011	39	--	--	--
1 Hour			2010	98	6.0	0	0
Average			2009	95	7.0	0	0
			2008	34	6.0	0	0
CO	>9.0 ppm	>9 ppm	2011	97	4.7	0	0
8 Hour			2010	98	3.6	0	0
Average			2009	95	4.6	0	0
			2008	34	4.3	0	0
NO_2	0.18 ppm	0.100 ppm	2011	96	0.075	0	0
1 Hour			2010	93	0.077	0	0
Average			2009	88	0.092	0	0
			2008	17	0.097	0	0
NO_2	0.030 ppm	>0.053 ppm	2011	96	0.019	No	No
Annual			2010	93	0.018	No	No
Average[3]			2009	88	0.021	No	No
			2008	17	--	No	No
Fine	none	35 µg/m^3	2011	88	35.3	n/a	0/0
Particulates			2010	89	38.2	n/a	1/3.4
$PM_{2.5}$			2009	94	69.2	n/a	3/9.6
24 Hour Average			2008	3	13.2	n/a	--
Fine	12 µg/m^3	15 µg/m^3	2011	88	13.0	Yes	No
Particulates			2010	89	12.5	Yes	No
$PM_{2.5}$			2009	94	14.7	Yes	No
Annual Average[3]			2008	3	--	--	--

1.Percent of year where high pollutant levels were expected that measurements were made.
2. Yes or no if the annual average concentration exceeds the applicable standard
3. Annual Arithmetic Mean
4. PM10 samples are collected every 6 days..
5. When State or National standards changed before 2009, only the most recent standard is listed.
-- Data Not Reported
n/a – no applicable standard
Source: SCAQND Air Quality Data Statistics web site www.arb.ca.gov/adam. Accessed on 1/31/2013

The Compton monitoring data presented in Table 3.4.1 shows that the state standards were exceeded for particulates and ozone.

Mobile emissions on Crenshaw Boulevard and Manhattan Beach Boulevard are the primary source of emissions in the campus area. The traffic volumes on Manhattan Beach Boulevard near campus are 19,100 ADT and traffic volumes on Crenshaw Boulevard are 26,400 ADT (2012). Particulate emissions sources are primarily construction activities in the area and region.

B. Air Quality Impacts from Project Construction and Operation

B.1 Thresholds of Significance for Air Quality

A threshold of significance is an identifiable quantitative, qualitative, or performance level of a particular environmental effect, non-compliance with which means the effect will normally be determined to be significant by the Lead Agency and compliance with which means the effect normally will be determined to be Less than Significant (CEQA Guidelines Section 15064.7). The SCAQMD ambient, construction and operational air quality standards are listed in Table 3.4.2 and Table 3.4.4.

The geographical area used for identification of project air quality impacts is the 126-acre campus, the area circulation system where the project may have a potential impact, and the Source Receptor Area for the campus.

Table 3.4.2
Ambient Air Quality Standards

Pollutant	*Averaging Time*	*State Standards*[1,3]	*Federal Standards*[2]	
			Primary[3,5]	Secondary[3,6]
Ozone (O_3)[9]	1 Hour	>0.09 ppm (180 µg/m^3)	--	--
	8 Hour	>0.070 ppm (137 µg/m^3)	0.075 ppm (147 µg/m^3)	Same as Primary
Suspended Particulate Matter (PM_{10})[8]	24 Hour	>50 µg/m^3	150 µg/m^3	Same as Primary
	AAM[6]	>20 µg/m^3	--	Same as Primary
Fine Particulate Matter ($PM_{2.5}$)[8]	24 Hour	--	35 µg/m^3	Same as Primary
	AAM[6]	>12 µg/m^3	15 µg/m^3	Same as Primary
Carbon Monoxide (CO)	1 Hour	20 ppm (23 mg/m^3)	35 ppm (40 mg/m^3)	None
	8 Hour	>9.0 ppm (10 mg/m^3)	9 ppm (10 mg/m^3)	None
	8 Hour (Lake Tahoe)	6 ppm (7 mg/m^3)	--	--
Nitrogen Dioxide (NO_2)	AAM[6]	0.030 ppm (56 µg/m^3)	0.053 ppm (100 µg/m^3)	Same as Primary
	1 Hour	0.18 ppm (438 µg/m^3)	100 ppb (188 µg/m^3)	--
Sulfur Dioxide (SO_2)	AAM[6]	--	0.030 ppm (80 µg/m^3)	--
	24 Hour	0.04 ppm (105 µg/m^3)	0.14 ppm (365 µg/m^3)	--
	3 Hour	--	--	0.5 ppm (1,300 µg/m^3)
	1 Hour	0.25 ppm (655 µg/m^3)	75 pp (196 µg/m^3)	--
Lead[7]	30 day Avg.	1.5 µg/m^3	--	--
	Calendar Quarter	--	1.5 µg/m^3	Same as Primary
Visibility Reducing Particles	8 hour	Extinction coefficient of 0.23 per km -- visibility ≥ 10 miles (0.07 per km -- ≥30 miles for Lake Tahoe)	No Federal Standards	
Sulfates	24 Hour	25 µg/m^3		
Hydrogen Sulfide	1 Hour	0.03 ppm (42 µg/m^3)		
Vinyl Chloride[7]	24 Hour	0.01 ppm (26 µg/m^3)		

1. California standards for ozone, carbon monoxide (except Lake Tahoe), sulfur dioxide (1 and 24 hour), nitrogen dioxide, PM_{10}, $PM_{2.5}$, and visibility reducing particles, are values that are not to be exceeded. All others are not to be equaled or exceeded.
2. National standards (other than ozone, PM_{10}, $PM_{2.5}$,, and those based on annual averages or annual arithmetic mean) are not to be exceeded more than once a year. The ozone standard is attained when the fourth highest eight hour concentration in a year, averaged over three years, is equal to or less than the standard. For PM_{10}, the 24 hour standard is attained when the expected number of days per calendar year with a 24-hour average concentration above 150 µg/m^3 is equal to or less than one. For $PM_{2.5}$, the 24 hour standard is attained when 98 percent of the daily concentrations, averaged over three years, are equal to or less than the standard. Contact U.S. EPA for further clarification and current federal policies.
3. Concentration expressed first in units in which it was promulgated. Equivalent units given in parentheses are based upon a reference temperature of 25° C and a reference pressure of 760 torr. Most measurements of air quality are to be corrected to a reference temperature of 25° C and a reference pressure of 760 torr; ppm in this table refers to ppm by volume, or micromoles of pollutant per mole of gas.

4. National Primary Standards: The levels of air quality necessary, with an adequate margin of safety to protect the public health.
5. National Secondary Standards: The levels of air quality necessary to protect the public welfare from any known or anticipated adverse effects of a pollutant.
6. Annual Arithmetic Mean
7. The ARB has identified lead and vinyl chloride as 'toxic air contaminants' with no threshold level of exposure for adverse health effects determined. These actions allow for the implementation of control measures at levels below the ambient concentrations specified for these pollutants.
8. On September 21, 2006 EPA revoked the annual 50 $\mu g/m^3$ PM_{10} standard and lowed the 24-hour $PM_{2.5}$ standard from 65 $\mu g/m^3$. Attainment designations are to be issued by November, 2009 with attainment plans due April, 2013.
9. On March 12, 2008 EPA lowered the 8-hour Ozone standard to 0.075 ppm from 0.08 ppm. Attainment designations are to be issued by March 2010 with attainment plans due by March, 2013

-- No Standard

The SCAQMD Governing Board adopted the 2012 Air Quality Management Plan in December 2012. The 2012 AQMP incorporates the planning assumptions of the SCAG's 2012 Regional Transportation Plan and Sustainable Communities Strategies.

The current criteria pollutants for the South Coast Air Basin (SCAB) and whether the basin is in attainment to current standards are shown in Table 3.4.3.

Table 3.4.3
Criteria Pollutants for the South Coast Air Basin

Pollutant	Federal	State
Ozone(0_3)	Extreme Nonattainment (2024)	Nonattainment
Suspended Particulate Matter (PM_{10})	Serious Nonattainment (2006)	Nonattainment
Fine Particulate Matter ($PM_{2.5}$)	Nonattainment (2015)	Nonattainment
Ozone (O_3)	Nonattainment (2015)	Nonattainment
Carbon Monoxide (CO)	Attainment/Maintenance (2000)	Attainment
Nitrogen Dioxide (NO_2)	Attainment/Maintenance (1995)	Attainment
Sulfur Dioxide (SO_2)	Attainment	Attainment
Lead (Pb)	Attainment	Attainment
Visibility Reducing Particles	n/a	Unclassified
Sulfates	n/a	Unclassified
Hydrogen Sulfide	n/a	Attainment
Vinyl Chloride	n/a	Attainment
Source: Mestre Greve Associates, Table 2, Appendix D.		

Table 3.4.3 indicates the SCAB is in attainment for state standards for Carbon Monoxide, Nitrogen Dioxide and Sulfur Dioxide only.

B.2. SCAG Regional Thresholds of Significance

Thresholds of Significance

SCAQMD thresholds of significance for construction and operation of new facilities is shown in Table 3.4.4. A project with daily emission rates below these thresholds are

considered to have a less than significant effect on air quality. SCAQMD also has local significant thresholds for assessing air quality impacts on sensitive receptors.

Reactive organic gases (ROG) are also known as reactive organic compounds (ROCs) and volatile organic compounds (VOCs), consist of non-methane hydrocarbons and oxygenated hydrocarbons. Hydrocarbons are organic compounds that contain only hydrogen and carbon atoms. Non-methane hydrocarbons are hydrocarbons that do not contain methane. ROG and VOC are used as equals in the project air quality analysis. (SCAG states a VOC standard and CalEEMod projects ROG emissions).

Table 3.4.4
SCAQMD Construction and Operation Thresholds of Significance

Phase	Pollutant Emissions Thresholds (lbs/day)					
	CO	VOC	NOx	PM_{10}	$PM_{2.5}$	SOx
Construction	550	75	100	150	55	150
Operation	550	55	55	150	55	150
Source: SCAQMD Thresholds of Significance, March 2011.						

SCAQMD also has localized thresholds of significance (LST) for particulate emissions on sensitive receptors. Residential areas near campus are considered sensitive receptors. The thresholds are based on distance between the particulate source and the sensitive receptor. For this analysis, the LST thresholds are related to the construction phase and the closest sensitive receptors to the construction location.

Table 3.4.5
Localized Significance Thresholds for Construction

Phase	CO	NO_X	PM_{10}	$PM_{2.5}$
1a	1,96	197	88	35
1b	846	115	37	13
1c	846	115	10	5
2a	1,658	186	20	8
2b	1,796	197	22	9
2c	1,796	197	45	11
2d	967	131	94	45
3a	816	111	37	12
Source: Table 7, Mestre Greve Associates, Appendix D.				

Since the project is a Program EIR for a Master Plan, the primary focus of the air quality analyses is the operational impacts of the project at buildout. Usually, the college has only 2-3 concurrent construction projects on sites of less than 5-acres that have been previously graded. Therefore, construction emissions have not been a major factor in the daily or total campus emissions. The air quality operational analyses is based on total student enrollment, which captures mobile CO emissions, which are the dominant particulate emission (annually or daily). The total net square footage increase for buildout of the 2012 FMP is only 34,721 ASF. However, since ten major buildings are being demolished, fourteen new buildings are being constructed, and eight are being renovated, construction emissions are evaluated closely.

The construction emission analysis focuses on individual projects or project areas with concurrent construction phasing where the most demolition or new construction is planned. A comprehensive description of the preliminary demolition and construction phasing is included in Appendix D.

B.3. Additional CEQA Guidelines Air Quality Thresholds

Air quality impacts are considered significant if they cause clean air standards to be violated where they are currently met, or if they measurably contribute to an existing violation of standards. Appendix G of the California CEQA Guidelines offers the following five tests of air quality impact significance. The specific CO California and Federal 1-hour and 8-hour standards were listed in Table 3.2.2. A project would have a significant impact if it:

1) Conflicts with or obstructs implementation of the applicable air quality plan,
2) Violates any air quality standard or contributes substantially to an existing or projected air quality violation,
3) Results 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 that exceed quantitative thresholds for ozone precursors),
4) Exposes sensitive receptors to substantial pollutant concentrations,
5) Creates objectionable odors affecting a substantial number of people.

B.4. Section 1: Project Short Term Air Quality Impacts

Air quality impacts are usually divided into short term and long term. Short-term impacts are usually the result of construction or grading operations. Air pollutants will be emitted by construction equipment and fugitive dust will be generated during demolition of the existing improvements as well as during grading and excavation of the

site. Long-term impacts are associated with the built out operation of the proposed project. The primary source of operational emissions is vehicle emissions..

B.5. Construction Emission Estimator Model Program (CalEEMod)

Emissions during the primary phases of construction were calculated using the 2011 California Emissions Estimator Model (CalEE Mod), a computer program issued by the South Coast Air Quality Management. Eight CalEEMod projections were completed for new construction phases and six projections completed for demolition phases.

Features of the CalEEMod Program

CalEEMod is a computer model used to estimate both the construction emissions and the operational emissions from a land use project. It calculates the daily max and annual average for criteria pollutants as well as total or annual greenhouse gas (GHG) emissions that may be used in CEQA documents. In addition, default values for water and energy use can be quantified.

Specifically the model provides the following calculations:

(1) Short term construction emissions associated with demolition, site preparation, grading, building, coating, and paving from the following sources:

a. Off-road construction equipment
b. On-road mobile equipment associated with workers, vendors, and hauling
c. Fugitive dust associated with grading, demolition, truck loading, and roads (Fugitive dust from windblown sources such as storage piles are not quantified in CalEEMod which is consistent with approaches taken in other comprehensive models.)
d. Volatile emissions of reactive organic gasses (ROG) from architectural coating and paving
e. Operational emissions associated with the fully built out land use development
f. On-road mobile vehicle traffic generated by the land uses
g. Fugitive dust associated with roads
h. Volatile emissions of ROG from architectural coating
i. Off-road emissions from landscaping equipment
j. Volatile emissions of ROG from consumer products and cleaning supplies
k. Wood stoves and hearth usage

l. Natural gas usage in the buildings
m. Electricity usage in the buildings (GHG only)
n. Water usage by the land uses (GHG only)
o. Solid waste disposal by the land uses (GHG only)
p. One-time vegetation sequestration changes
q. Permanent vegetation land use changes
r. New tree plantings
s. Mitigation measures for both short-term construction and operational emissions.

Several of the mitigation measures listed in California Air Pollution Control Officers Association (CAPCOA) Quantifying Greenhouse Gas Mitigation Measures are included in the CalEEMod program.

In general, CAlEEMod uses six phases to describe the construction process: Demolition, Site Preparation, Grading, Building Construction, Paving and Architectural Coating. These phases may be defined as follows:

1. Demolition involves tearing down of buildings or structures.
2. Site Preparation involves clearing vegetation (grubbing and tree/stump removal) and stones prior to grading.
3. Grading involves the cut and fill of land to ensure the proper base and slope for the construction foundation.
4. Building Construction involves the construction of structures and buildings
5. Architectural Coasting involves the application of coatings to both the interior and exterior of buildings or structures.
6. Paving involves the laying of concrete or asphalt such as in parking lots or roads.

However, users may define different phases and enter construction equipment and construction schedules for specific projects.

B.6 Existing Operational Emissions

Existing operational air quality emissions for the campus are primarily from vehicular emissions. However, particulate emissions are always of concern because of their contribution to respiratory ailments. The emission projections are based on 16,400 FTES and 1,277,546 OGSF.

Table 3.4.6
Existing Operational Daily Omissions

Category	Pollutant Emissions (lbs/day)					
	CO	VOC	NO_X	PM_{10}	$PM_{2.5}$	SO_2
Vehicular Emissions	2,137.9	215.4	570.1	370.9	33.7	3.3
Natural Gas Combustion	4.7	0.6	5.6	0.4	0.4	0.0
Landscaping	0.0	0.0	0.0	0.0	0.0	0.0
Consumer Products	0.0	26.0	0.0	0.0	0.0	0.0
Architectural Coatings	0.0	8.0	0.0	0.0	0.0	0.0
Total Emissions	2,142.6	250.4	575.7	371.3	34.1	3.3
Source: Table 5, Mestre Greve Associates, Appendix D.						

Nitrogen Oxides (NO_x) form when Nitrogen in the air and Oxygen combine to form NO_x. ROG emissions are primarily from painting activities. ROG operational emissions can be lowered by using paint with low VOC emissions. Increasing use of public transit will also reduce CO emissions.

The primary means of reducing mobile emissions, including NO_x is to increase the percentage of more efficient vehicles in the total vehicle feet and promote trip reduction strategies. The District complies with Rule 2202, implement the County of Los Angeles Transportation Demand Management (TDM) ordinance, and will continue to promote increased public transit use.

B.7. 2012 Facilities Master Plan Construction Schedule

Scheduling of individual projects is depending on project design, state design approvals, educational needs and funding availability. Projects on campus that are currently under construction include the athletic fields east of Murdock Stadium and the Math Business Allied Health building. Buildout of the 2012 FMP results in a net increase of only 34,721 ASF on campus. Therefore, the increase in square footage, and operational emissions are minor, in relationship to the emissions related to student enrollment increases. However, as stated previously, demolition and new construction generates air quality emissions on a short-term basis.

B.8. Air Quality Impacts from Construction Emissions

Table 3.4.7 lists the estimated construction and operational emissions for concurrent projects (January 2015 to March 2015). The preliminary phasing for the project was listed in Table 2.2.2 and the phasing locations are listed in Figures 4, 5 in Appendix D. The concurrent projects include the construction of the Student Services Center, the Lot C Parking Structure, the Administration building and the Lot F Parking Structure renovation and addition. (The daily unmitigated emission estimates for all individual projects is listed in Appendix D). Peak demolition emissions were assumed to occur in a one month period.

The maximum concurrent projects daily emissions do not exceed SCAQMD Significance thresholds for four pollutants but do exceed the thresholds for VOC and NO_x emissions. Off-road diesel equipment is the primary source of NO_x emissions. However, CalEEMod may overstate NO_x emissions because CARB regulations regarding more efficient off-road equipment factors are not included in the model (CalEEMod User's Guide, Version 2011.1, February 2011, page 22).

Table 3.4.7
Maximum Concurrent Unmitigated Construction Emissions

Category	Unmitigated Total Daily Emissions (lbs/day)					
	CO	VOC	NO_X	PM_{10}	$PM_{2.5}$	SO_2
2a Construction	25.1	30.4	4.6	2.2	1.9	0.0
2a Painting	2.2	2.6	8.5	0.3	0.2	0.0
2b Construction	36.5	37.2	5.8	4.7	2.2	0.1
2b Painting	3.7	2.7	53.5	0.7	0.3	0.0
2c Lot F Construction	30.5	29.6	4.9	4.2	2.1	0.1
2d Peak Demolition	21.5	34.4	4.3	13.1	1.8	0.0
3a Remedial Demolition and Site Preparation	11.8	19.9	2.5	6.3	3.8	0.0
Total Combined Emissions	130.9	156.7	84.1	31.4	12.2	0.2
Significance Threshold	550	100	75	150	55	150
Exceed Threshold	NO	YES	YES	NO	NO	NO
Source: Table 9, Mestre Greve Associates, Appendix D.						

B.9. Localized Significance Thresholds (LST) Analysis

The closest existing residential areas to the campus are located north of Manhattan Beach Boulevard and a few multifamily units are located south of Redondo Beach Boulevard near the southwest area of the campus.

The South Coast Air Quality Management District recommends that the Localized Significance Threshold Methodology be used only for projects of less than or equal to five acres (Final Localized Significance Threshold Methodology, SCAQMD, June 2003, revised July 2008). The use of LSTs by local governments is voluntary and not required by law

The LST methodology was developed to be used as a tool to assist lead agencies to analyze localized impacts associated with project-specific level proposed projects. The LST methodology and associated mass rates are not designed to evaluate localized impacts from mobile sources traveling over the roadways. Further, LSTs are applicable to projects at the project-specific level and are not applicable to regional projects such as General Plans. The LST methodology and associated mass rate look-up tables will be included as an update to the SCAQMD CEQA Air Quality Handbook upon Governing Board's approval.

LSTs represent the maximum emissions from a project that will not cause or contribute to an exceedance of the most stringent applicable federal or state ambient air quality standards, and are developed based on the ambient concentrations of that pollutant for each source receptor area.

The preliminary phasing plan for the project indicates that Phase 1C has the most potential to generate construction emissions near the residential areas north of Manhattan Beach Boulevard. While Phases 2a and 2b are closer to the street, they generate less particulate emissions than Phase 1C. Particulate emissions for each construction phase of construction are included in Appendix D.

Table 3.4.8 lists the projected existing daily unmitigated emissions for Phase 1C, which has the most demolition and construction activity in a short timeframe.

Table 3.4.8
Onsite Phase 1C Unmitigated Construction Emissions

Activity	Onsite Unmitigated Daily Emissions (lbs/day)			
	CO	NO_X	PM_{10}	$PM_{2.5}$
Site Prep (2013)	14.2	25.5	7.2	4.5
Grading (2013)	14.2	25.5	7.2	4.5
Construction (2013)	23.5	34.7	2.3	2.3
Construction (2014)	23.5	32.1	2.0	2.0
Painting (2014)	1.9	2.8	0.2	0.2
Significance Threshold	845.8	115.0	9.6	4.6
Exceed Threshold	NO	NO	NO	NO
Source: Mestre Greve Associates, Table 10, Appendix D.				

Construction emissions for Phase 1C do not exceed SCAQMD construction thresholds of significance. Therefore, all phases of the project have a less than significant construction impact on air quality emissions.

B.10. Air Quality Impacts from Operational Emissions

The air quality impacts from operational emissions are evaluated by comparing daily emissions in 2020 without and with the project. Table 3.4.9 projects the operational emissions for 2020 without the project based on 2012 square footage and 2020 student enrollments.

Table 3.4.9
Operational Daily Emissions in 2020 Without Project

Category	Pollutant Emissions (lbs/day)					
	CO	VOC	NO_X	PM_{10}	$PM_{2.5}$	SO_2
Vehicular Emissions	986.3	110.1	261.0	296.7	17.3	2.7
Natural Gas Combustion	4.5	0.6	5.4	0.4	0.4	0.0
Landscaping	0.0	0.0	0.0	0.0	0.0	0.0
Consumer Products	0.0	25.1	0.0	0.0	0.0	0.0
Architectural Coatings	0.0	8.0	0.0	0.0	0.0	0.0
Total Emissions	990.8	143.7	266.4	297.2	17.7	2.7
Source: Table 11, Mestre Greve Associates, Appendix D.						

Table 3.4.10 projects the operational emissions for 2020 based on buildout of the 2012 Facilities Master Plan, and the projected 2020 student enrollments (20,025 FTES) and 1,314,600 OGSF.

Table 3.4.10
Operational Daily Emissions in 2020 With Project

Category	Pollutant Emissions (lbs/day)					
	CO	VOC	NO_X	PM_{10}	$PM_{2.5}$	SO_2
Vehicular Emissions	1,204.3	134.4	318.7	362.3	21.1	3.25
Natural Gas Combustion	4.1	0.6	5.0	0.4	0.4	0.3
Landscaping	0.0	0.0	0.0	0.0	0.0	0.0
Consumer Products	0.0	26.0	0.0	0.0	0.0	0.0
Architectural Coatings	0.0	8.3	0.0	0.0	0.0	0.0
Total Emissions	1,209.0	169.4	324.3	362.8	21.5	3.28
Source: Table 12, Mestre Greve Associates, Appendix D.						

The project impact on operational emissions due to the project is the net increase or decrease in emissions between Table 3.4.10 and Table 3.4.9. Buildout of the 2012 Facilities Master Plan does not exceed the SCAQMD significance thresholds for five pollutants. However, the thresholds are exceeded for NOx without mitigation.

Table 3.4.11
Increase in Operational Emissions Due to the Project (2020)

Category	Unmitigated Total Daily Emissions (lbs/day)					
	CO	VOC	NO_X	PM_{10}	$PM_{2.5}$	SO_2
Vehicular Emissions	218.0	24.3	57.7	65.6	3.8	0.6
Natural Gas Combustion	-0.4	0.0	-0.4	0.0	0.0	0.0
Landscaping	0.0	0.0	0.0	0.0	0.0	0.0
Consumer Products	0.0	1.0	0.0	0.0	0.0	0.0
Architectural Coatings	0.0	0.3	0.0	0.0	0.0	0.0
Total Emissions	217.6	25.7	57.3	65.6	3.8	0.6
Significance Threshold	550	55	55	150	55	150
Exceed Threshold	NO	NO	YES	NO	NO	NO
Source: Table 13, Mestre Greve Associates, Appendix D.						

The unmitigated operational emissions for buildout of the 2012 FMP exceed only the SCAQMD thresholds of significance for NOx emissions. The primary means of reducing mobile emissions, including NO_x is to increase the percentage of more efficient vehicles in the total vehicle feet and promote trip reduction strategies. The college will implement the County of Los Angeles Transportation Demand Management (TDM) ordinance, and will continue to promote increased bus ridership.

With the recommended mitigation measures below to increase public transit use and reduce vehicular trips in Section B: Traffic/Circulation (TR-07) and Section C: Parking (PK-09), the project impact on operational NOx emissions is Less than Significant with Mitigation Incorporated.

As discussed in Appendix D (page 45), a 4 percent reduction in vehicular emission rates would reduce the projected NOx emissions below the SCAQMD operational thresholds of significance. Vehicle emission rates will be 8 percent lower in 2021 than 2020 so the significant effect will occur for only one year.

A 4 percent reduction in ADT will occur if an additional 140 additional students to use public transit facilities or carpool by 2020 and reduce vehicular trips by 275 ADT (i.e. 5,583 FTES increase x 1.23 ADT x 4.0 percent). A carpool of two persons reduces two trips daily, a carpool of three persons reduces four trips daily and one additional transit passenger reduce two trips daily. One additional vanpool may reduce trips by 7-9 trips. Therefore, encouraging 140 students to not be solo drivers is a reasonable assumption. However, since student participation in public transit and bus pass discount programs is not mandatory, there may be short periods of non-compliance with the NOx threshold. Therefore, the project impact on operational NOx emissions is regarded as Unavoidable Adverse.

B.11. Diesel Particulate Matter Emissions During Construction

In 1998, the California Air Resources Board (ARB) identified particulate matter from diesel-fueled engines (Diesel Particulate Matter or DPM) as a Toxic Air Contaminant (TAC). It is assumed that the majority of the heavy construction equipment utilized during construction would be diesel fueled and emit DPM. Impacts from toxic substances are related to cumulative exposure and are assessed over a 70-year period. Cancer risk is expressed as the maximum number of new cases of cancer projected to occur in a population of one million people due to exposure to the cancer-causing substance over a 70-year lifetime (California Environmental Protection Agency, Office of Environmental Health Hazard Assessment, Guide to Health Risk Assessment.) The grading required for the project is minimal, so the peak diesel exhaust emissions onsite during construction are related to intermittent use of diesel powered construction

equipment and passage of diesel on-road hauling trucks. Because of the relatively short duration of use of diesel construction equipment onsite compared to a 70-year lifespan, diesel emissions resulting from the construction of the project are Less than Significant.

The recommended mitigation measures do require use of Tier 4 construction equipment, which results in use of more efficient diesel equipment that generates less DPM emissions during construction. New equipment sold after 2011 is required to meet the Tier 4 Interim Standards and new equipment sold after 2014 is required to meet the Tier 4 Final Standards. All phases of the project occurring before mid-year 2015 should use the Tier 4 equipment to reduce construction emissions.

As shown in Appendix D, the project is consistent with the SCAQMD Air Quality Management Plan (AQMP) because it does not increase the frequency or severity of violations of state or federal standards. The projected construction emissions are less than SCAQMD construction thresholds of significance. While the projected unmitigated operational emissions are above the NOx threshold, the increase is not cumulatively considerable at the regional level. No significant operational NO_x emissions are anticipated near the campus. The CalEEMod projections for NO_x do not include reductions for the proposed public transit incentives required of the project. The project does not exceed assumptions in the AQMP. No land use designation change or zoning change is associated with the project. The project does not induce growth but accommodates student enrollment projections for the District. The net increase in facilities for the project is less than 50,000 OGSF and a student enrollment increase of 2,025 FTES over a seven year period is not substantial.

B.12. Air Quality Impact Conclusions

The project construction impact on local air quality is Less than Significant with Mitigation Incorporated because, with mitigation, the analysis estimates project emissions will not exceed SCAQMD thresholds.

The project's impact on operational NOx emissions is regarded as Unavoidable Adverse because student participation in public transit incentive programs is voluntary and not mandatory. While these measures are projected to reduce NO_x operational emissions below SCAQMD operational thresholds, their success is not guaranteed.

The project's net contribution to local and regional air quality cumulative emissions, which do exceed State and Federal standards, is less than cumulatively considerable.

Table 3.4.12
Maximum Concurrent Mitigated Construction Emissions

Category	Unmitigated Total Daily Emissions (lbs/day)					
	CO	VOC	NO_X	PM_{10}	$PM_{2.5}$	SO_2
2a Construction	25.1	18.5	1.4	0.6	0.2	0.0
2a Painting	2.1	1.3	8.2	0.1	0.0	0.0
2b Construction	36.5	25.3	2.7	3.1	0.6	0.1
2b Painting	3.6	1.47	53.2	0.4	0.0	0.0
2c Lot F Construction	30.5	20.4	2.2	2.7	0.5	0.1
2d Peak Demolition	20.9	22.2	3.2	10.6	1.5	0.0
3a Remedial Demolition and Site Preparation	11.5	10.7	1.7	2.9	1.9	0.0
Total Combined Emissions	130.2	99.6	72.5	20.3	4.8	0.2
Significance Threshold	550	100	75	150	55	150
Exceed Threshold	NO	NO	NO	NO	NO	NO
Source: Table 14, Mestre Greve Associates, Appendix D.						

The CalEEMod model incorporates some of the mitigation measures listed below and demonstrates that mitigation measures are effective in reducing particulate emissions. The project is required to implement the air quality mitigation measures listed in Section C.

C. Mitigation Measures for Project Construction and Operation Air Quality Impacts

AQ-01: All contractors shall comply with all feasible Best Available Control Measures (BACM) in Rule 403 included in Table 1: Best Available Control Measures Applicable to All Construction Activity Sources. In addition, the project shall comply with at least one of the following Track-Out Control Options: (a) Install a pad consisting of washed gravel (minimum-size: one inch) maintained in a clean condition to a depth of at least six inches and extending at least 20 feet wide and 50 feet long, (b) Pave the surface extending at least 100 feet and a width of at least 20 feet wide, (c) Utilize a wheel shaker/wheel spreading device consisting of raised dividers (rails, pipe, or grates) at least 24 feet long and 10 feet wide to remove bulk material from tires and vehicle under carriages before vehicles exit the site, (d) Install and utilize a wheel washing system to remove bulk material from tires and vehicle undercarriages before vehicles exit the site, (e) Any other control measures approved by the Executive Officer and the U.S. EPA as

equivalent to the methods specified items (a) through (d) above. Individual BACM in Table 1 that are not applicable to the project or infeasible, based on additional new project information, may be omitted only if Planning Facilities Planning and Services specifies in a written agreement with the applicant that specific BACM measures may be omitted. Any clarifications, additions, selections of alternative measures, or specificity required to implement the required BACM for the project shall be included in the written agreement. The written agreement shall be completed prior to commencement of demolition and/or grading permit for a project. Facilities Planning and Services shall ensure compliance.

AQ-02: Construction contracts shall specify that all diesel construction equipment used onsite shall use ultra-low sulfur diesel fuel. Project construction contracts shall also prohibit vehicle and engine idling in excess of five (5) minutes and ensure that all off-road equipment is compliant with the CARB's in-use off-road diesel vehicle regulations and SCAQMD Rule 1186 and 1186.1 certified street sweepers or roadway washing trucks, and all internal combustion engines/construction equipment operating on the project site shall meet EPA-Certified Tier 2 emissions standards, or higher according to the adopted project start date requirements. A copy of each unit's certified tier specification, BACT documentation and CARB or SCAQMD operating permit shall be provided to the construction manager at the time of mobilization of each applicable unit of equipment. Facilities Planning and Services shall ensure compliance.

AQ-03: During construction, contractors shall minimize offsite air quality impacts by implementing the following measures: (a) encourage car pooling for construction workers, (b) limit lane closures to off-peak travel periods, (c) park construction vehicles off traveled roadways, (d) encourage receipt of materials during non-peak traffic hours and (e) sandbag construction sites for erosion control. These requirements shall be included in construction contracts and implemented. Facilities Planning and Services shall monitor compliance.

AQ-04: Truck deliveries and pickups shall be scheduled during off-peak hours whenever possible to alleviate traffic congestion and air quality emissions during peak hours. Facilities Planning and Services shall monitor compliance.

AQ-05: An energy management system shall be installed in all new facilities to reduce energy consumption and related pollutant emissions. Facilities Planning and Services shall monitor compliance.

AQ-06: During grading and construction, fugitive dust from construction operations shall be reduced by watering at least twice daily using reclaimed water or chemical soil

binder, where feasible, or water whenever substantial dust generation is evident. Grading sites of more than ten gross acres shall be watered at least three times daily. The project shall comply with Rule 403: Fugitive Dust (South Coast Air Quality Management District). Project contractors shall suspend grading operations, apply soil binders, and water the grading site when wind speeds (as instantaneous gusts) exceed 25 miles per hour. Traffic speeds on all unpaved graded surfaces shall not exceed 15 miles per hour. All grading operations shall be suspended during first and second stage smog alerts. All project contracts shall require project contractors to keep construction equipment engines tuned to ensure that air quality impacts generated by construction activities are minimized. Upon request, contractors shall submit equipment tuning logs to Facilities Planning and Services. Facilities Planning and Services shall ensure compliance.

AQ-07: To reduce VOC emissions, all construction contracts shall specify the use of paint with low VOC emissions (ROG emission rate of less than 0.80 pounds per gallon), limit painting to eight hours per day, use paint thickness of 0.75 millimeters or less, use water-based and low-VOC coatings with ROG/VOC emissions of less than 8.0 pounds per 1,000 square feet of painted surface, and use high-volume, low pressure sprayers. Purchasing shall ensure compliance.

AQ-08: During project construction, all off-road diesel-powered construction equipment greater than 50 hp shall meet the EPA-Certified Tier 4 interim emission standards where available. All construction equipment shall be outfitted with BACT devices certified by CARB. Any emission control devices used by a 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. A copy of each unit's certified tier specification, BACT documentation and CARB or SCAQQMD operating permit shall be provided by contractors before commencement of equipment use on campus. Facilities Planning and Services shall ensure compliance.

D. Level of Significance for Project Construction and Operational Air Quality Impacts

The project impact on operational and construction air quality emissions is Less than Significant With Mitigation Incorporated.

E. Cumulative Air Quality Conditions

Existing cumulative air quality conditions are described in the data from the monitoring station in Table 3.2.1. As indicated previously, the pollutants of concern for the SCAB are Ozone and Particulates (PM_{10} and $PM_{2.5}$).

F. Impacts of Cumulative Projects on Air Quality

Thresholds of Significance for Cumulative Air Quality Impacts

A threshold of significance is an identifiable quantitative, qualitative, or performance level of a particular environmental effect, non-compliance with which means the effect will normally be determined to be significant by the Lead Agency and compliance with which means the effect normally will be determined to be Less than Significant (CEQA Guidelines Section 15064.7). The SCAQMD ambient air quality standards were listed in 3.2.2.

The geographical area used for identification of cumulative project air quality impacts is Source Receptor Area 10.

Construction Air Quality Cumulative Impacts

Since air quality in the region continues to violate state and federal standards for some particulates, the cumulative impacts of past, present and future projects in the SCAQMD is cumulatively adverse. The South Coast Air Basin (SCAB) is in attainment for state standards for Carbon Monoxide, Nitrogen Dioxide and Sulfur Dioxide. But, the SCAB is not in attainment for state standards for Ozone, Suspended Particulate Matter (PM_{10}) and Fine Particulate Matter ($PM_{2.5}$).

Although the project will comply with all SCAQMD Rule 403 (Fugitive Dust) regulations, Best Management Practices and the recommended mitigation measures for reduction of PM_{10} and $PM_{2.5}$ emissions, project construction activities will contribute to cumulatively adverse air quality impacts. However, the project's net contribution to area and regional emission is less than considerable. The project long-term air quality impacts, or operational emissions, are primarily from motor vehicles. The project generates a net increase of 10,043 ADT (without public transit discounts). Student and staff use of public transit, van pools and TDM requirements are estimated to reduce these trips by up to 10 percent. The CalEEMod projections indicate the project may exceed the NO_x and ROG emission standards are strongly linked to mobile emissions and construction equipment. CARB regulation of construction emissions from diesel engines is not included in CalEEMod but will be enforced through contract conditions with project contractors. These measures constitute a fair share mitigation effort, and result in the emissions of concern being less than considerable.

Cumulative area and regional air quality emissions in cities are mitigated through the adoption of General Plans (e.g. land use and circulation elements), through adoption of

Air Quality Elements, and are being addressed by state and regional actions (Assembly Bill 32: 2006 Global Warming Solutions Act, SB 375: 2008 Sustainable Communities and Climate Protect Act, the California Green Building Code, CARB Scoping Plan and SCAQMD policies).

The cumulative air quality impacts of the three related projects included in the traffic study are also included in the projections in Section B.10.

The table below compared 2012 and 2020 daily operational emissions for the campus. All six of the pollutant emissions decline in 2020 with the project compared to existing daily emissions.

Table 3.4.13
Change in Campus Operational Emissions (2012-2020)

Category	Pollutant Emissions (lbs/day)					
	CO	VOC	NO_X	PM_{10}	$PM_{2.5}$	SO_2
2012 Daily Emissions	2,142.6	250.4	575.7	371.3	34.1	3.30
2020 Daily Emissions (Unmitigated)	1,209.0	169.4	324.3	362.8	21.5	3.28
Difference (Decline)	(933.6)	(81.0)	(251.4)	(8.5)	(12.6)	(0.02)
Significance Threshold	550	55	55	150	55	150
Exceed Threshold	NO	NO	NO	NO	NO	NO
Source: Tables 3.4.6, 3.4.10						

The decline in operational emissions from 2012-2020 is attributed to the small increase in 2020 campus building total square footage and the increased proportion of more efficient engines in newer vehicles in the analysis.

G. Mitigation for Cumulative Air Quality Impacts

All mitigation measures recommended in Section 3.6.3 are also recommended for cumulative air quality impacts and are not repeated herein.

Section 15130 (a) (3) of the CEQA Guidelines indicates that a project's contribution to a significant cumulative impact is rendered less than cumulatively considerable and thus

is not significant when the project is required to implement or fund its fair share of mitigation measures designed to alleviate the cumulative impact. The lead agency must identify facts and analysis supporting its conclusion that the contribution will be rendered less than cumulatively considerable. Since the project is required to implement its fair share of mitigation measures for cumulative construction emissions for concurrent projects, and buildout of the 2012 FMP, the cumulative impact is Less than Significant With Mitigation Incorporated.

H. Level of Significance for Cumulative Air Quality Impacts

Less than Significant with Mitigation Incorporated

3.5 GREENHOUSE GASES

A. Existing Conditions for Climate Change

A.1. Climate Change and Greenhouse Gases

The A climate change analysis for the project was prepared by Landrum & Brown in January 2013 and are summarized herein. The complete reports are included in Appendix E.

The Earth's climate has always been changing due to diverse natural factors. These factors include changes in the Earth's orbit, volcanic eruptions, and energy released by the sun. These differences cause climate temperature fluctuations ranging from ice ages to long periods of warmth. However, since the Industrial Revolution in the 18th Century, mankind has increasingly influenced the rate of climate change.

The term climate change refers to the global warming and cooling, increased temperatures and other environmental effects. Some effects include changes to rainfall, wind, weather patterns, differences in the snow and ice pack, and changes in the sea level.

Depending on which GHG emissions scenario is used, climate models predict that the Earth's average temperature could rise anywhere between 2.5 to 10.4 ºF from 1990 to the end of this century. The degree of change is influenced by the assumed amount of GHG emissions, and how quickly atmospheric GHG levels are stabilized.

Global GHG emissions are measured in million metric tons of carbon dioxide equivalent ("MMT CO_2EQ") units. A metric ton is approximately 2,205 lbs. Some GHGs emitted into the atmosphere are naturally occurring, while others are caused solely by human activities. The principal GHGs that enter the atmosphere because of human activities are:

> Carbon dioxide (CO_2) enters the atmosphere through the burning of fossil fuels (oil, natural gas, and coal), agriculture, irrigation, and deforestation, as well as the manufacturing of cement.
>
> Methane (CH_4) is emitted through the production and transportation of coal, natural gas, and oil, as well as from livestock. Other agricultural activities influence methane emissions as well as the decay of waste in landfills.

Nitrous Oxide (N_2O) is released most often during the burning of fuel at high temperatures. This greenhouse gas is caused mostly by motor vehicles, which also include non-road vehicles, such as those used for agriculture.

Fluorinated Gases are emitted primarily from industrial sources, which often include hydro-fluorocarbons (HRC), per-fluorocarbons (PFC), and sulfur hexafluoride (SF_6). Though they are often released in smaller quantities, they are referred to as High Global Warming Potential Gases because of their ability to cause global warming. These gases have different potentials for trapping heat in the atmosphere, called global warming Potential ("GWP"). One pound of methane has 21 times more heat capturing potential than one pound of carbon dioxide. When dealing with an array of emissions, the gases are converted to carbon dioxide equivalents for comparison purposes.

Consumption of fossil fuels in the transportation sector was the single largest source of California's GHG emissions in 2004, accounting for 40.7 percent of total GHG emissions in the state. This category was followed by the electric power sector (including both in-state and out-of-state sources, 22.2 percent and the industrial sector, 20.5 percent (California Energy Commission 2006). A byproduct of fossil fuel combustion is CO_2. Methane, a highly potent GHG, results from emissions associated with agricultural practices and municipal solid waste landfills.

A.2. Impact of Climate Change on California and Human Health

Locally, global warming could cause changing weather patterns with increased storm and drought severity in California. Changes to local and regional ecosystems including the potential loss of species, and a significant reduction in winter snow may occur. Current data suggest California could experience unprecedented heat, longer and more extreme heat waves, greater intensity and frequency of heat waves, and longer dry periods. The California Climate Change Center (2006) predicted that California could witness the following events:

- Temperature rises between 3 and 10.5 degrees Fahrenheit
- 6 to 20 inches or more increase in sea level
- 2 to 4 times as many heat-wave days in major urban centers
- 2 to 6 times as many heat-related deaths in major urban centers
- 1 to 1.5 times more critically dry years
- 10 to 55% increase in the risk of wildfires

Global warming has a profound impact on water resources. Climate change can alter the weather patterns and water supply in California leading to increased water shortages (i.e., a dwindling snowpack, bigger flood flows, rising sea levels, longer and harsher droughts). Water supplies are also at risk from rising sea levels. Risks may include degrading California's estuaries, wetlands and groundwater aquifers, which would threaten the quality and reliability of the California fresh water supply.

Higher temperatures may require buildings consume more electricity for cooling and consume more water for landscaping.

Global CO_2 emissions totaled about 33,326 MMT CO_2EQ (million metric tons of Carbon Dioxide Equivalents) in 2006. The United States released 7,017 MMT CO_2EQ in 2006, which is approximately 21% of the earth's total emissions. The burning of fossil fuels produced over 81% of total GHG emissions in the United States. In relation to other states, California is the second highest producer of CO_2 by fossil fuels and has .the second highest level of GHG production in 2001 after Texas.

A.3. Sources of Greenhouse Gases in California

The California Energy Commission (CEC) categorizes GHG generation by source into five broad categories. The categories are:

(1) Transportation includes the combustion of gasoline and diesel in automobiles and trucks. Transportation also includes jet fuel consumption and bunker fuel for ships.

(2) Agriculture and forestry GHG emissions are composed mostly of nitrous oxide from agricultural soil management, CO_2 from forestry practice changes, methane from enteric fermentation, and methane and nitrous oxide from manure management.

(3) Commercial and residential uses generate GHG emissions primarily from the combustion of natural gas for space and water heating.

(4) Industrial GHG emissions are produced from many industrial activities. Major contributors include oil and natural gas extraction; crude oil refining; food processing; stone, clay, glass, and cement manufacturing; chemical manufacturing; and cement production. Wastewater treatment plants are also significant contributors to this category.

(5) Electric generation includes both emissions from power plants in California as well as power plants located outside of the state that supply electricity to the state.

The transportation sector contributed approximately 40% of the California GHG. The electric generation and industrial sectors are the second largest GHG contributors in the state, accounted for 18 to 20%, per sector. The smallest GHG contributors are the commercial and residential sector, as well as the agricultural and forestry sector, accounted for about 10% and 8%, respectively.

While California has the second highest rate of GHG production in the nation, it should also be noted that California has one of the lowest per capita rates of GHG emissions.
The Governor's Office of Planning and Research (OPR) issued a Technical Advisory on CEQA and Climate Change in June 2008. The Advisory provides an outline of what should be included in a GHG analysis under CEQA. January 2009, OPR issued amendments to the CEQA Guidelines that address GHGs. Among the amendments are the following:

(1) Determining the Significance of Impacts from Greenhouse Gas Emissions (Section 15064.4;
(2) Thresholds of Significance (Section 15064.7(c))
(3) Discussion of Cumulative Impacts (Section 15130 (a) (1) (B) and Section 15130 (f))
(4) Tiering and Streamlining the Analysis of Greenhouse Gas Emissions (Section 15183.5);

In September 2006, Governor Arnold Schwarzenegger signed *Assembly Bill 32,* the California Global Warming Solutions Act of 2006 *(Health and Safety Code Section 38500 et seq.).* AB 32 directs the California Air Resources Board ("CARB") to recommend policies and regulations to reduce global warming in all aspects of the California economy.

Executive Order S-3-05 (June 1, 2005) calls for a reduction in GHG emissions to 2000 levels by 2010; 1990 levels by 2020; and for an 80 percent reduction in GHG emissions below 1990 levels by 2050. It also directs the California Environmental Protection Agency (CalEPA) to prepare biennial science reports on the potential impact of continued global warming on sectors of the California economy.
The California Air Resources Board is the lead agency for implementing AB 32. In October 2008, CARB published a Proposed Scoping Plan, in coordination with the Climate Action Team (CAT), to establish a comprehensive set of actions designed to

reduce overall greenhouse gas emissions in California. The measures in the Scoping plan approved by the Board will be in place by 2020. California Executive Order S-3-05 requires an 80 percent reduction of greenhouse gases from 1990 levels by 2050. On a per-capita basis, that means reducing our annual emissions of 14 tons of CO_2 equivalent for every man, woman and child in California down to about 10 tons per person by 2020.

GHG emissions in the SCAQMD are cumulatively significant and the project contributes toward the total GHG emissions in the South Coast Air Quality Basin. SCAQMD has adopted a goal of reducing GHG emissions by 8 percent by 2020 and 15 percent by 2025.

Table 3.5.1
Annual Campus Existing GHG Operational Emissions 2012

Source	CO_2	CH_4	N_2O	CO_2EQ
Vehicular Emissions	32,312.8	1.9	0.0	32,353.0
Natural Gas Consumption	1,070.6	0.0	0.0	1,077.1
Electrical Generation	5,136.4	0.2	0.1	5,201.8
Landscaping	0.0	0.0	0.0	0.0
Consumer Products	0.0	0.0	0.0	0.0
Architectural Coatings	0.0	0.0	0.0	0.0
Municipal Waste	607.6	35.9	0.0	1,361
Water	310.9	1.1	0.0	343.6
Total Annual Emissions in Metric Tons Per Year (MT)	39,471.1	39.2	0.1	40,337.0
Service Population (Employees)				1,320
Emissions Per Service Population (MT CO_2EQ/year/person)				30.6
Source: Mestre Greve Associates, Table 3, Appendix C, Metric ton = 2,205 lbs.				

SCAQMD does not regulate existing campus operational emissions. The estimate is completed to establish a base case for assessing the project increase only.

A.4. SCAQMD GHG Standards

The South Coast Air Quality Management District is recommending policies and adopting regulations for GHG emission methodologies and standards. Development of thresholds of significance for CEQA analysis of GHG emissions is part of this effort.

However, thresholds have been adopted for some projects and only recommendations provided for others.

B. Project Impacts on Climate Change

B.1. SCAQMD Thresholds of Significance

The GHG CEQA Significance Threshold Stakeholder Working Group is continuing work begun in 2008 which recommends GHG methodologies and GHG thresholds of significance. Recommendations are categorized into Tiers 1-5: (1) Tier 1: Projects with Applicable CEQA Exemptions (e.g. SB 97, categorical and statutory exemptions), (2) Tier 2: Projects Consistent with GHG Reduction Plans (CEQA Guidelines Sections 15064 (h) (3), 15125 (d), and 15152 (a)), Tier 3: Screening Values by Land Use Category, (4) Tier 4: Performance Standards and (5) Tier 5: Mitigation Offsets.

The screening value proposed for residential projects is 3,500 MT/Year CO_2EQ, 1,400 MT/Year CO_2EQ for commercial land uses and 3,000 MT/Year CO_2EQ for mixed-use projects (SCAQMD, 9/28/2010). There is no specific screening value for colleges.

B.2. Project Greenhouse Gas Construction and Operational Emissions

The project will result in short-term construction GHG emissions. These emissions, primarily CO_2, CH_4, and N_2O result from fuel combustion from construction equipment used onsite and construction motor vehicles. These emissions are estimated by the CalEEMod model. The same construction schedule and phasing assumed for the air quality particulate emission analysis is used for the GHG emissions analysis. The SCAQMD methodology annualizes the construction-related GHG mitigated emissions over a 30-year period.

Table 3.5.2
Total Construction GHG Emissions (Metric Tons)

Source	CO_2	CH_4	N_2O	CO_2EQ
Stadium Demolition				
2012	700.6	0.05	0.00	701.6
2013	474.9	0.03	0.00	475.5
All Other Construction Activity				
2011	868.6	0.08	0.00	870.2
2012	2,051.4	0.17	0.00	2,054.9
2013	2,576.8	0.19	0.00	2,580.8
2014	2,793.9	0.20	0.00	2,798.1
2015	2,745.8	0.18	0.00	2,749.6
2016	2,732.9	0.17	0.00	2,736.4
2017	2,704.5	0.16	0.00	2,707.7
2018	2,697.4	0.14	0.00	2,700.4
2019	2,230.3	0.11	0.00	2,232.6
2020	2,230.1	0.10	0.00	2,232.3
2021	2,056.7	0.09	0.00	2,058.5
2022	158.6	0.01	0.00	158.7
Total Emissions in Metric Tons	27,022	1.68	0.00	27,057
Project Life Average Annual Emissions (Total/30 Years)	900.7	0.06	0.00	901.9
Source: Mestre Greve Associates, Table 5, Appendix C, Metric ton = 2,205 lbs.				

Construction emissions are generally stable annually based on the preliminary phasing program, with approximately 2,700 metric tons of CO_2EQ yearly. SCAQMD analysis procedures annualize construction emissions over a 30 year period.

The project impact on greenhouse gases is the difference between the buildout year (2020) without and with the project. This is consistent with the Bay Area Air Quality Management District (BAAQMD), which is an interim methodology not adopted by the SCAQMD Governing Board but recommended by staff. The AB 32 California 2020 GHG emission goal of 4.6 MT CO2EQ per service population is an interim standard only until regulations are adopted by SCAQMD or Los Angeles County. The adoption of a Climate Action Plan by the County of Los Angeles would preempt future SCAQMD GHG emission thresholds.

Table 3.5.3
Annual Campus GHG Operational Emissions in 2020 Without Project

Source	CO_2	CH_4	N_2O	CO_2EQ
Vehicular Emissions	27,884.1	1.0	0.0	27,905.9
Natural Gas Consumption	1,070.6	0.0	0.0	1,077.1
Electrical Generation	5,169.4	0.2	0.1	5,201.8
Landscaping	0.0	0.0	0.0	0.0
Consumer Products	0.0	0.0	0.0	0.0
Architectural Coatings	0.0	0.0	0.0	0.0
Municipal Waste	607.6	35.9	0.0	1,361.6
Water	310.9	1.1	0.0	343.6
Total Annual Emissions in Metric Tons Per Year (MT)	35,042.5	38.3	0.1	35,889.8
Service Population (Employees)				1,320
Emissions Per Service Population (MT CO_2EQ/year/person)				27.2
Source: Mestre Greve Associates, Table 6, Appendix C, Metric ton = 2,205 lbs. Annual emission projections are without mitigation.				

As shown in the tables, the project impact (emissions per service population) increases from 27.2 to 29.8 MT CO_2EQ per year per person. Using SCAQMD procedures, the service population for the campus is the total number of employees, not student enrollments.

Please note that there is no service population category that includes students and faculty for college campuses. Since the vehicular emissions for students are used to project total annual emissions, students should be included in the service population. If the project were office buildings, all employees would be included in the service population. Since fifty-three percent (53) of the total assignable square footage on campus in 2012 were classrooms, laboratories and office/conference space, it is reasonable to include 53 percent of the student increase in the service population or 2,066 employees and students. This results in an emissions per service population of 3.7 MT CO_2EQ per year per person (7,693.7/2,066), which is below the performance standard per service population.

Table 3.5.4
Annual Campus GHG Emissions in 2020 With Project

Source	CO_2	CH_4	N_2O	CO_2EQ
Vehicular Emissions	34,047.5	1.3	0.0	34,074.1
Natural Gas Consumption	1,112.6	0.0	0.0	1,119.4
Electrical Generation	5,372.4	0.2	0.1	5,406.1
Landscaping	0.0	0.0	0.0	0.0
Consumer Products	0.0	0.0	0.0	0.0
Architectural Coatings	0.0	0.0	0.0	0.0
Municipal Waste	741.8	43.8	0.0	1,662.5
Water	379.6	1.3	0.0	419.5
Total Annual Emissions in Metric Tons Per Year (MT)	41,654.0	46.7	0.2	42,681.6
Annualized Construction Emissions (Table 3.5.2)	900.7	0.1	0.0	901.9
Service Population (Employees)				1,465
Emissions Per Service Population (MT CO_2EQ/year/person)				29.8
Source: Mestre Greve Associates, Table 7, Appendix C, Metric ton = 2,205 lbs. Annual emission projections are without mitigation.				

Table 3.5.5
Annual Campus GHG Emission Increase Due to the Project (Metric Tons)

Source	CO_2	CH_4	N_2O	CO_2EQ
Vehicular Emissions	6,163.4	0.2	0.0	6,168.2
Natural Gas Consumption	42.1	0.0	0.0	42.3
Electrical Generation	203.1	0.2	0.0	204.3
Landscaping	0.0	0.0	0.0	0.0
Consumer Products	0.0	0.0	0.0	0.0
Architectural Coatings	0.0	0.0	0.0	0.0
Municipal Waste	134.3	7.9	0.0	301.0
Water	68.7	0.2	0.0	76.0
Total Annual Emissions in Metric Tons Per Day (MT)	6,611.5	8.4	0.0	6,791.7
Annualized Construction Emissions (Table 3.5.2)	900.7	0.1	0.0	901.9
Total Annual GHG Emissions Increase Due to Project (MT/year)	7,512.3	8.5	0.0	7,693.7
Service Population (Employees)				145
Emissions Per Service Population (MT CO_2EQ/year/person)				53.1
Performance Standard Per Service Population				4.6
Level of Significance				Significant Impact
Source: Mestre Greve Associates, Table 8, Appendix C, Metric ton = 2,205 lbs. Annual emission projections are without mitigation.				

At buildout the 2012 Facilities Master Plan will generate 7,694 metric tons of CO_2EQ (operational and annualized construction emissions). This equates to 53.1 metric tons per service population, which is a significant impact. Approximately 89 percent of the total annual GHG emissions are related to vehicular emissions. The District has little direct control over student transportation choices, but can provide incentives to students to use public transportation, vanpools or carpools.

The project will generate GHG total emissions (operational and annualized construction) beyond SCAQMD recommendations. The recommended mitigation measures below, which are voluntary regulations from the California Green Building Standards Code (CGBSC), as specified in the DSA-SS (Department of State Architect, Structural Safety) requirements will reduce emissions but not to a level of insignificance. The project GHG emission impact is Unavoidable Adverse.

The increase in GHG campus annual emissions from existing GHG operational emissions only (e.g. not including construction) to project buildout operational emissions is shown below.

Table 3.5.6
Increase in GHG Campus Emissions (2012-2020)

Source	CO_2	CH_4	N_2O	CO_2EQ
Operational Annual Emissions in Metric Tons Per Year (MT)				
Existing Conditions (2012)	39,471.1	39.2	0.1	40,337.0
Project Buildout (2020)	41,654.0	46.7	0.2	42,681.6
Annual Increase	2,182.9	7.5	0.1	2,344.6
Source: Table 3.5.1, Table 3.5.4.				

There is no specific adopted threshold for a project's contribution to SCAGMD regional emissions and all projects are required to contribute toward reduction of GHG emissions in the SCAG region. However, the project's contribution to regional GHG emissions is regarded as significant without mitigation. If the project can achieve an 8 percent reduction in GHG emissions by 2020 (e.g. the SCAG adopted reduction goal), it would be regarded as Less than Significant with Mitigation Incorporated. The 2012 FMP project's contribution to cumulative regional GHG emissions is regarded as significant without mitigation.

The estimated GHG emissions state wide in 2008 is 474 million metric tons (MMT) and the 2020 projection was 596 MMT. The estimated 2008 GHG emissions for the SCAG region from construction activities, mobile sources, electricity generation and natural gas consumption were 177 million metric tons. (Please that these categories do not fully correspond to the sources used to project campus GHG emissions. The estimated

2020 GHG emissions for Los Angeles County are 66 MMT, which equates to 181,822 MT daily.

Additional mitigation measures to encourage student use of public transportation and carpool, which also reduce campus GHG emissions, are included in Sections 3.3 and 3.11.

C. Mitigation Measures Project Climate Change Impacts

GG-01: Future buildings exceeding 20,000 ASF shall have building roof coverings have a minimum three-year aged solar reflectance and thermal emittance, or a minimum reflectance index (SRI) greater than or equal to the values specified in Sections A5.106.11.2.1 and A5 106.11.2.2 or a minimum aged Solar Reflectance Index (SRI) 3 complying with Sections A5.106.11.2.3 and as shown in Table A5.106.11.2.1 or A5.106.11.2.2 in Appendix A5 for Non-Residential Voluntary Measures in the 2010 California Green Building Standards Code (CalGreen). Facilities Planning and Services shall ensure compliance

GG-02: Future buildings exceeding 20,000 ASF shall include occupant sensors, motion sensors and vacancy sensors capable of automatically turning off all the lights in an area no more than 30 minutes after the area has been vacated and shall have a visible status signal indicating that the device is operating properly or that it has failed or malfunctioned. The visible status signal may have an override switch that s turns the signal off. In addition, ultrasonic and microwave devices shall have a built-in mechanism that allows the calibration of the sensitivity of the device to room movement in order to reduce the false sensing o occupants and shall comply with either Subsection A5.209.1.4.1 or A5.209.1.4.2 as applicable. These measures are included in Appendix A5 for Non-Residential Voluntary Measures in the 2010 California Green Building Standards Code (CalGreen). Facilities Planning and Services shall ensure compliance.

GG-03: Future buildings exceeding 20,000 ASF shall include installation of field-fabricated fenestration (i.e. windows) and field-fabricated exterior doors only if the compliance documentation demonstrates compliance for the installation using U-factors from Table A5.205.1-A and Solar Heat Gain Coefficient (SHGC) values from Table A5.205.1-B included in Appendix A5 for Non-Residential Voluntary Measures in the 2010 California Green Building Standards Code (CalGreen). Facilities Planning and Services shall ensure compliance.

GG-04: Future buildings exceeding 50,000 ASF shall either have an energy efficiency of 30 percent above Title 24. Part 6 (e.g. Exceed CEC requirements (Performance Approach), based on the 2008 Energy Efficiency Standards by 30 percent and meet the requirements of Division A45.6) or exceed the latest edition of "Savings by Design, healthcare Modeling Procedures" by 15 percent, in accordance with Section A.5.203.1.2 CaLGreen Tier 2 (OSHPD), as listed in Appendix A5 for Non-Residential Voluntary Measures in the 2010 California Green Building Standards Code (CalGreen). Facilities Planning and Services shall ensure compliance.

GG-05: If Lot L undergoes major resurfacing in the future, the parking lot shall be constructed with solar reflective asphalt coating to reduce heat island effects. Facilities Planning and Services shall ensure compliance.

D. Level of Significance for Project Climate Change

Unavoidable Adverse

E. Cumulative Conditions for Climate Change

The geographical area used for identification of cumulative greenhouse gas emissions is the South Coast Air Basin (SCAB). Projections of greenhouse gas emissions in the SCAB project are published by SCAQMD and CARB. SCAQMD has adopted regulations to reduce greenhouse gases by 8 percent in 2020 and 15 percent by 2025. The recommended regulations to implement these changes have not been adopted to date.

CalGreen includes volunteer tiers intended to further encourage building practices that improve public health, safety and general welfare by promoting the use of building concepts that minimize the building's impacts on the environment and promote a more sustainable design. CalGreen has both mandatory and voluntary measures and future regional projects may select voluntary measures as mitigation measures in CEQA documentation.

F. Cumulative Impacts for Climate Change

GHG emissions in the SCAQMD are cumulatively significant and the project contributes toward the total GHG emissions in the South Coast Air Quality Basin. SCAQMD has adopted a goal of reducing GHG emissions by 8 percent by 2020 and 15 percent by 2025. The same migration measures recommended to reduce project GHG emissions to reduce energy will reduce cumulative GHG emissions within the SCAB.

There are no other major projects proposed in the campus area and the three small projects identified in the traffic analysis generate only 3,324 ADT. These projects have a less than considerable contribution toward regional cumulative GHG emissions.

G. Mitigation Measures for Cumulative Climate Change

GG-01: Future buildings exceeding 20,000 ASF shall have building roof coverings have a minimum three-year aged solar reflectance and thermal emittance, or a minimum reflectance index (SRI) greater than or equal to the values specified in Sections A5.106.11.2.1 and A5 106.11.2.2 or a minimum aged Solar Reflectance Index (SRI) 3 complying with Sections A5.106.11.2.3 and as shown in Table A5.106.11.2.1 or A5.106.11.2.2 in Appendix A5 for Non-Residential Voluntary Measures in the 2010 California Green Building Standards Code (CalGreen). Facilities Planning and Services shall ensure compliance

GG-02: Future buildings exceeding 20,000 ASF shall include occupant sensors, motion sensors and vacancy sensors capable of automatically turning off all the lights in an area no more than 30 minutes after the area has been vacated and shall have a visible status signal indicating that the device is operating properly or that it has failed or malfunctioned. The visible status signal may have an override switch that s turns the signal off. In addition, ultrasonic and microwave devices shall have a built-in mechanism that allows the calibration of the sensitivity of the device to room movement in order to reduce the false sensing o occupants and shall comply with either Subsection A5.209.1.4.1 or A5.209.1.4.2 as applicable. These measures are included in Appendix A5 for Non-Residential Voluntary Measures in the 2010 California Green Building Standards Code (CalGreen). Facilities Planning and Services shall ensure compliance.

GG-03: Future buildings exceeding 20,000 ASF shall include installation of field-fabricated fenestration (i.e. windows) and field-fabricated exterior doors only if the compliance documentation demonstrates compliance for the installation using U-factors from Table A5.205.1-A and Solar Heat Gain Coefficient (SHGC) values from Table A5.205.1-B included in Appendix A5 for Non-Residential Voluntary Measures in the 2010 California Green Building Standards Code (CalGreen). Facilities Planning and Services shall ensure compliance.

GG-04: Future buildings exceeding 50,000 ASF shall either have an energy efficiency of 30 percent above Title 24. Part 6 (e.g. Exceed CEC requirements (Performance Approach), based on the 2008 Energy Efficiency Standards by 30 percent and meet the requirements of Division A45.6) or exceed the latest edition of “Savings by Design,

healthcare Modeling Procedures" by 15 percent, in accordance with Section A.5.203.1.2 CALGreen Tier 2 (OSHPD), as listed in Appendix A5 for Non-Residential Voluntary Measures in the 2010 California Green Building Standards Code (CalGreen). Facilities Planning and Services shall ensure compliance.

GG-05: If Lot L undergoes major resurfacing in the future, the parking lot shall be constructed with solar reflective asphalt coating to reduce heat island effects. Facilities Planning and Services shall ensure compliance.

H. Level of Significance for Cumulative Climate Change

Section 15130 (3) of the CEQA Guidelines indicates that if a project's contribution to a significant cumulative impact is rendered less than cumulatively considerable, and not significant, if the project contributes its fair share of mitigation measures to reduce a cumulative impact,. Since the project is providing its fair share of reductions in greenhouse gas emissions by implementing the recommended mitigation measures, the cumulative impact is Less than Significant.

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3.6 NOISE

A. Existing Conditions for Noise

A noise study for the project was prepared by Mestre Greve Associates, a Division of Landrum & Brown in December 2012 and is summarized herein. The complete report is included as Appendix F.

Noise Terminology

Sound is mechanical energy transmitted by pressure waves in a compressible medium such as air. Noise is commonly defined as unwanted sound. Noise, defined as unwanted or excessive sound, is a form of environmental degradation. Noise is typically a byproduct of transportation systems, certain land uses and on-going human activity. The full effect of noise on individuals in the community varies with the duration of the noise, its intensity and frequency, and the tolerance level of those exposed. The common unit for measuring sound (or noise) to the faintest level detectable by a person with good hearing is called a decibel (dB).

Because sound or noise can vary in intensity by over one million times within the range of human hearing, a logarithmic loudness scale similar is used to keep sound intensity numbers at a convenient level. Since the human ear is not equally sensitive to all sound frequencies within the entire spectrum, noise levels at maximum human sensitivity are factored more heavily into sound descriptions in a process called A-weighting, written as dB(A). Any reference to decibels herein written as dB should be understood as A-weighted.

Community Noise Equivalency Level (CNEL)

Time variations in noise exposure are typically expressed in terms of a “Leq,” which describes the sound level that is exceeded over some fraction of a given observation period. An Leq or equivalent sound level is the weighted average of all noise levels which occur over a specific time period. Leq is used to describe fluctuating sounds over long periods of time. A sound measured for one hour may be expressed as one-hour Leq of 57 dBA The Leq has units of dBA and may also report minimum (L min) or maximum (L max) noise levels during a measurement period.

Because community receptors (e/g/. residents, the infirm, convalescents, children) are more sensitive to unwanted noise during the evening and night, state law requires that nighttime noise be more heavily weighted than nose occurring during the day. To

measure this noise variation during different times of the day, an artificial dB increment is added to quiet time noise levels for planning purposes in a 24-hour noise descriptor called the Community Noise Equivalency Level (CNEL). The CNEL takes average sound levels at an observation point and adds a weighting penalty to those sounds that occur during the evening and night hours. A penalty of 5 dBA is added between 7 pm and 10 pm, and a 10-dBA penalty is added between 10 pm and 7 am. CNEL noise levels are often reported as 65 dB CNEL or 65 CNEL.

The California Noise Insulation Standards (*Title 25 of the California Code of Regulations*) uses CNEL as its primary noise rating method. An interior CNEL of 45 dB(A) is mandated for multiple family dwellings in Title 24 of the California Code of Regulations, and is considered the desirable noise exposure for single family dwelling units also. Since typical noise attenuation within residential structures is about 20 dB, an exterior noise exposure of 65 dB CNEL is generally considered an acceptable level for residential and other noise-sensitive land uses, such as schools, hospitals and convalescent homes.

Ldn Noise Standards

Ldn, the day-night scale is similar to the CNEL scale except that evening noises ((7 pm to 10 pm) are not penalized. Ldn is a measure of the overall noise experienced during an entire day. The time-weighted refers to the fact that noise that occurs during certain sensitive time periods is penalized for occurring during these times. In the Ldn scale, those noise levels that occur during the night (10 pm to 7 am) are penalized by 10 dB. This penalty was selected to attempt to account for increased human sensitivity to noise during the quieter period of the day, where home and sleep are probable activities.

L (%) Noise Standards

L (%) is a statistical method of describing noise that accounts for variance in noise levels throughout a given measurement period. L %) is a way of expressing the noise level exceeded for a percentage of time in a given measurement period. For example, since 5 minutes is 25 percent of 20 minutes, L (25) is the noise level that is equal to or exceeded for five minutes in a twenty-minute measurement period. L (%) is used in most Noise Ordinance standards. For example most daytime city, state and county Noise Ordinances use an ordinance standard of L (50) level of 55 dBA. In other words the Noise Ordinance states that no noise level should exceed 55 dBA for more that fifty percent of a given period.

State Noise Standards

All jurisdictions in the state of California are required to have a *Noise Element* in the *General Plan*. Such elements typically articulate noise exposure standards designed to insure that noise does not excessively impact the quality of life of its citizens. For noise sources amenable to local control, acceptable noise levels by land use is usually established and regulated by ordinance. These ordinances limit the allowable noise levels at the property line from the noise source onsite. However, for the most common noise sources (e.g., vehicles, trains or airplanes) local jurisdictions are pre-empted from regulating the noise emissions from the source.

Noise ordinance standards are typically stated in terms of the Leq metric, or in terms of allowable exposures over short time periods. The land use decision standards normally use a 24-hour CNEL. While noise ordinances are part of a Municipal Code, noise/land use compatibility standards are usually included in the Noise Element of a General Plan.

County of Los Angeles Noise Element

The current Los Angeles County Noise Element was adopted in 1975. The General Plan is being updated and the draft of the 2035 General Plan (May 2012) is now available. The 2012 Noise Element includes eleven (11) policies and three programs to implement these policies. The policies and programs are briefly described in Appendix F and are not listed herein.

County of Los Angeles Noise Ordinance

Title 12, Environmental Protection, Chapter 12.08, Noise, in the Los Angeles County Municipal Code includes the noise ordinance. Part 4 presents noise restrictions for specific sources of noise. Exterior noise standards are outdoor noise levels that cannot be exceeded at one property from activity (e.g. ongoing operational activity and not construction activity) for a portion of an hour.

When residential and commercial uses adjoin one another the Lmax exterior noise standard (Table 3.6.1) is 75 dBA (average of 70 + 80 dBA for Zones II, III). Table 3.6.1 lists the five Leq exterior noise standards. If the ambient noise levels at the receptor location exceeds the exterior noise standard than the ambient level becomes the standard. The ambient noise is above the County standard for Sites 1, 4 (Table 3.6.3) would be increased above 75 dBA and the project does not have a significant effect on the exterior noise levels at the residential and commercial land use interface.

Table 3.6.1
Select Exterior Noise Standards

		Noise Level Not To Be Exceeded	
Maximum Time of Exposure	Noise Metric	Daytime 7 am to 10 pm	Nighttime 10 pm to 7 am
Noise Zone II - Residential			
30 minutes/hour	L50	50 dBA	45 dBA
15 minutes/hour	L25	55 dBA	50 dBA
5 minutes/hour	L8.3	60 dBA	55 dBA
1 minute/hour	L1.7	65 dBA	60 dBA
Any period of time	Lmax	70 dBA	65 dBA
Noise Zone III - Commercial			
30 minutes/hour	L50	60 dBA	55 dBA
15 minutes/hour	L25	65 dBA	60 dBA
5 minutes/hour	L8.3	70 dBA	65 dBA
1 minute/hour	L1.7	75 dBA	70 dBA
Any period of time	Lmax	80 dBA	75 dBA
Source: Table 2, Mestre Greve Associates, Appendix F.			

The interior noise standards (Table 3, Appendix F) relate to interior noise levels that cannot be exceeded in one dwelling unit due to activity in a neighboring dwelling unit. These standards are not applicable to the project.

Part 4 (Sections 12.08.0430 to 12.08.560) of the County of Los Angeles Noise Ordinance is applicable to construction noise. Limits on construction noise are defined in Section 12.08.440 of the noise ordinance. This section prohibits “operating or causing the operation of any tools or equipment used in construction, drilling, repair, alteration or demolition work between weekday hours of 7:00 p.m. and 7:00 a.m., or at any time on Sundays or Holidays, such that the sound there from creates a noise disturbance across a residential or commercial real-property line, except for emergency work of public service utilities or by variance issued by the health officer.”

Section 112.08.440 also defines maximum noise levels that cannot be exceeded by construction activities at nearby offsite structures. These noise level limits are presented in Table 3.6.2. Mobile construction equipment cannot generate a noise level exceeding 75 dBA at the building face of single-family residences, 80 dBA at multifamily residences, and 85 dBA at the face of business structures. There is no allowance for ambient noise increases or adjustment for increases in traffic-related noise.

Table 3.6.2
Construction Noise Level Standards (dBA)

	Maximum Noise Level at Building Face		
Maximum Time of Exposure	Single-Family Residential	Multi-Family Residential	Semi-Residential and Commercial
MOBILE EQUIPMENT[1]			
Daily except Sundays and legal holidays, 7 am to 8 pm	75	80	85
Daily and all day Sunday and Legal Holidays 8 pm to 7 am	60	64	70
STATIONARY EQUIPMENT[2]			
Daily except Sundays and legal holidays, 7 am to 8 pm	60	65	70
Daily and all day Sunday and Legal Holidays 8 pm to 7 am	50	55	60
Source: Table 1, Mestre Greve Associates, April 2008, Appendix F. 1 Maximum nose level for nonscheduled, intermittent, short-term operation (less than 10 days) of mobile equipment. 2 Maximum noise levels for repetitively scheduled and relatively long-term operation (periods of 10 days or more) of stationary equipment.			

El Camino College Noise Standards

El Camino College is autonomous as it related to campus development and not subject to the City's noise standards. Districts governed by the California Educational Code have no specific noise standards. The general requirement is that the noise level be compatible with an educational environment. However, that goal is generally met by using the same noise goals included in the County's General Plan and Noise Ordinance. Therefore, County noise regulations and standards are used in the preliminary noise analysis as performance standards and thresholds of significance.

However, the college may select its own performance standards. This analysis revises the County standards for the noise analyses. The refinements are more restrictive for parks than the County, which has no park noise standards, and is consistent with the County's residential construction noise standards.

Existing Noise Levels

Existing noise levels around the campus are primarily related to traffic on area streets. Commercial or athletic event activity noise may be sometimes audible, but vehicular traffic noise on Manhattan Beach Boulevard, Crenshaw Boulevard and Redondo Beach Boulevard are the dominant noise sources.

Existing noise levels near area streets was modeled based on trips counted in the traffic study and future noise levels were projected based on the Federal Highway Noise Model (FHWA Highway Traffic Noise prediction Model, FHWA-RD-77-108, December 1978) using the CALVENO noise emission curves developed by Caltrans. The FHWA Model uses vehicle trips, vehicle mix, vehicle speed, and roadway geometry to compute the "equivalent noise level."

Table 3.6.3 projects the existing CNEL contours for roadways near the campus.

Table 3.6.3
Existing 2012 Roadway Traffic Noise Levels

Roadway Segment	CNEL @ 100 ft from Centerline	Distance to CNEL Contour (feet)		
		70 CNEL	65 CNEL	60 CNEL
HAWTHORNE BOULEVARD				
North of Manhattan Beach Blvd.	64.6	RW	94	202
Manhattan Beach Blvd. to I-405	64.8	RW	97	208
PRAIRIE AVENUE				
North of Manhattan Beach Blvd.	64.1	RW	87	187
South of Manhattan Beach Blvd.	64.0	RW	86	184
North of Redondo Beach Blvd.	64.0	RW	85	184
South of Redondo Beach Blvd.	63.5	RW	80	172
YUKON AVENUE				
Redondo Beach Blvd. to Artesia Boulevard	52.5	RW	RW	31
LEMOLI AVENUE				
North of Manhattan Beach Blvd.	49.9	RW	RW	RW
CRENSHAW BOULEVARD				
North of Manhattan Beach Blvd.	64.4	RW	91	196
South of Manhattan Beach Blvd.	64.9	46	98	212
North of Redondo Beach Blvd.	65.0	46	100	215
South of Redondo Beach Blvd.	64.8	RW	96	208
North of Artesia Blvd.	64.7	RW	95	205
Artesia Blvd. to 182nd St.	65.1	47	102	220
182nd St. to I-405	66.2	56	121	260
South of I-405	66.9	62	134	289
MANHATTAN BEACH BOULEVARD				
I-405 to Hawthorne Blvd.	63.9	RW	85	183
Hawthorne Blvd. to Prairie Ave.	64.9	45	98	211
East of Prairie Ave.	64.8	45	97	209
West of Lemoli Ave.	64.9	45	98	211
Lemoli Ave. to Crenshaw Blvd.	61.8	RW	61	132
East of Crenshaw Blvd.	60.0	RW	46	100
REDONDO BEACH BOLEVARD				
West of I-405	62.1	RW	64	138
I-405 to Prairie Ave.	63.7	RW	82	177
Prairie Ave. to Yukon Ave.	63.6	RW	81	174
East of Yukon Ave.	63.4	RW	78	168
West of Crenshaw Blvd.	63.2	RW	76	164
East of Crenshaw Blvd.	64.1	RW	88	189

ARTESIA BOULEVARD				
Yukon Ave. to Crenshaw Blvd.	64.4	RW	91	197
East of Crenshaw Blvd.	65.2	48	103	222
182ND STREET				
West of Crenshaw Blvd.	61.1	RW	55	118
Crenshaw Blvd. to I-405 NB Ramps	63.7	38	82	177
East of I-405 NB Ramps	60.9	RW	54	115
Source: Table 6, Mestre Greve Associates, Appendix F. RW = Contour falls within Roadway Right-of-Way				

Table 3.6.3 shows that noise levels along area roadways adjacent to and near campus are generally near 65 CNEL. Considering its urban setting, this is quite remarkable. The 65 dBA CNEL contour from Manhattan Beach Boulevard extends 98 feet from roadway centerline from Prairie Avenue to Lemoli Avenue, and 61 feet from roadway centerline from Lemoli Avenue to Crenshaw Boulevard.

Existing Monitored Noise Levels

The site locations for noise monitoring are identified in Exhibit 7. The noise measurement utilized a Brüel & Kjær 2238 automated digital noise data acquisition system. This instrument automatically calculates both the Equivalent Noise Level (LEQ) and percent noise level (L%) for any specific period. The noise monitor was equipped with a Brüel & Kjær 1/2-inch electret microphone and was calibrated with a Brüel & Kjær calibrator with calibration traceable to the National Bureau of Standards before and after each measurement. The monitor was set up to record the Leq noise levels every one-second.

Exhibit 7
Noise Monitoring Locations

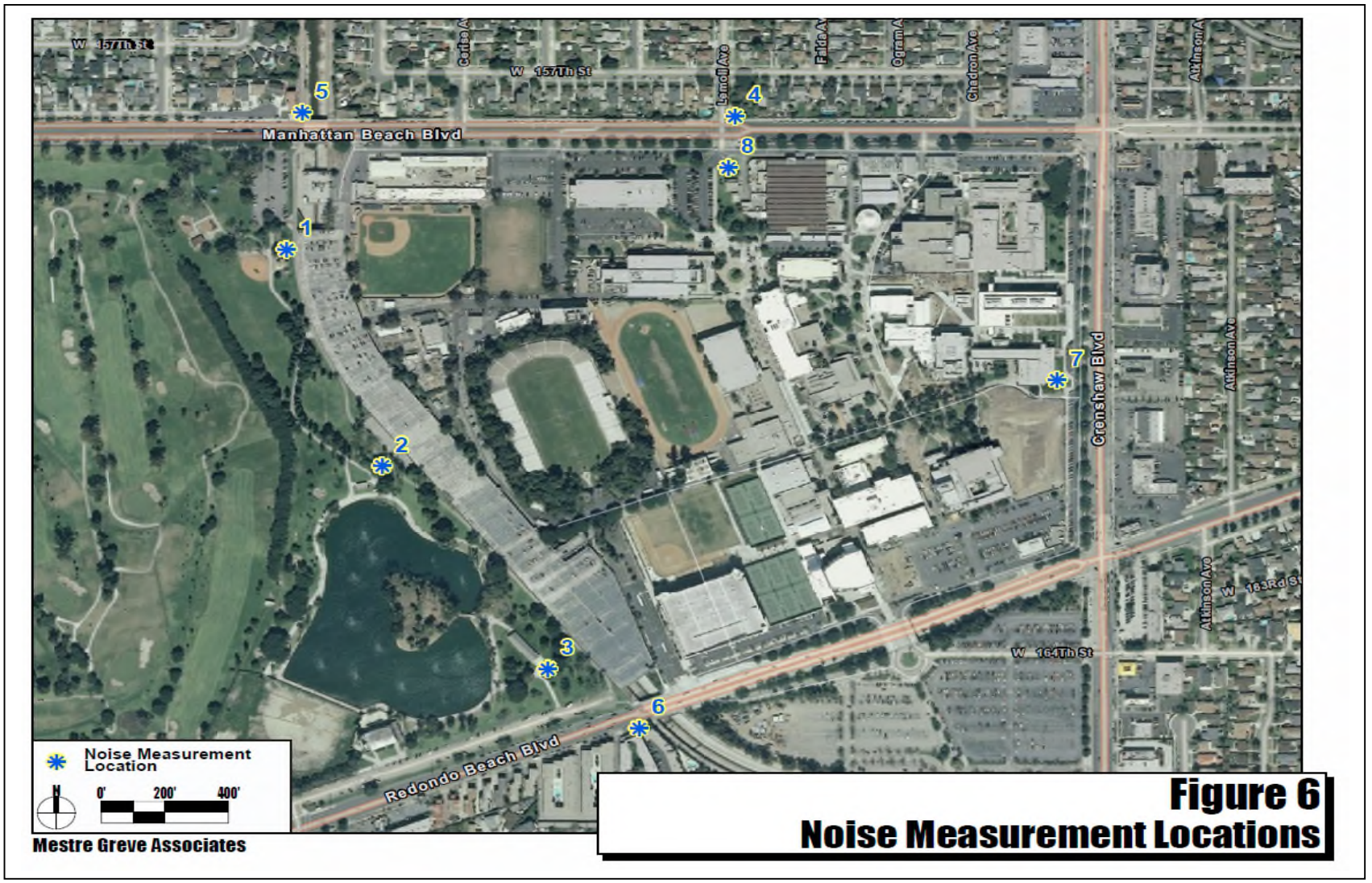

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Table 3.6.4
2012 Monitored Noise Levels (Leq and L%)

Site	Start	Leq	Lmax	L1.7	L8.3	L25	L50	L90	Lmin
1	12:40	58.3	77.7	67.7	61.0	55.3	52.5	49.9	47.8
2	13:05	51.8	61.9	57.0	53.7	51.9	50.9	49.8	48.8
3	13:32	55.9	63.1	59.4	57.9	56.8	55.6	52.8	50.1
4	14:35	68.5	84.8	77.2	72.0	68.2	63.5	56.5	21.1
5	14:55	64.9	79.5	75.9	72.1	68.8	64.7	53.5	50.6
6	15:29	71.1	81.0	77.4	75.0	72.4	69.6	63.0	53.6
7	16:40	63.2	81.9	67.8	65.7	63.7	61.2	55.0	52.2
8	17:19	61.4	70.5	67.1	64.5	62.6	60.2	54.9	21.1
Source: Table 5, Mestre Greve Associates, Appendix F.									

The site locations were identified in Exhibit 7 and an expanded discussion of the precise location is given in Appendix F. L50, which indicates the background noise level that is exceeded 50 percent of the time ranges from 50.9 to 69.6 dBA. While sports activities, small plane overflights and a few loud vehicles influenced some readings, the noise levels are typical of noise levels in an urban setting adjacent to arterial roadways.

Flight Traffic Noise

The project site is not located within two miles of any airport. Some indirect over-flight noise may occur when small planes from Hawthorne, Torrance or Compton Municipal Airports or higher altitude commercial from Los Angles International occur in the region. Flight traffic noise is not a significant factor is existing noise levels on campus. However, some of the noise monitoring events did include small plane noise.

B. Project Impacts on Noise

Noise impacts are considered significant if: (1) They create long-term violations of noise standards that exceed County of Los Angeles noise/land use compatibility standards where such standards are currently met, (2) They substantially worsen an already excessive noise environment and, (3) They substantially increase an existing quiet environment even if noise standards are not violated by the proposed action.

There are no firm guidelines on what constitutes “substantially increase.” In practice, people cannot clearly perceive noise level changes of 3 dB or less, particularly if they occur over an extended time period. However, a 3 dB increase requires a doubling of traffic volumes. Few projects individually double traffic volumes on already noisy,

heavily traveled streets. Traffic noise impacts in areas already exceeding standards are usually a cumulative impact rather than a project impact. The project is considered to have significantly contributed to a long-term cumulative noise impact if it increases noise levels more than 1 dB.

Numerical noise standards typically associated with the significance thresholds listed above include:

New standard exceeded = 65 dB CNEL in noise sensitive uses
Worsen existing standards = +1 dB if 65 dB CNEL already exceeded
Long-term adverse increase = +3 dB CNEL if total is less than 65 dB CNEL

The geographical area used for noise analysis is the campus, adjacent areas with sensitive receptors (e.g. residences, schools or nursing facilities) and the circulation network where project traffic is a substantial proportion of total traffic.

Potential noise impacts from implementation of 2012 FMP may result from four sources: (1) Increase in student enrollment that will generate more traffic, (2) Construction of new buildings, demolition of existing buildings or renovation of existing campus buildings relative to offsite receivers, (3) Construction and operation of the Lot C Parking Structure south of Manhattan Beach Boulevard and renovation and operation of the Lot F Parking Structure along the western boundary of the campus, (4) Renovation and construction related to Murdock Stadium, (5) Demolition and construction of the Administration Building. The other projects proposed in the 2012 FMP are located in the interior of the campus away from sensitive receptors and do not result in significant noise effects.

Construction Noise

Temporary construction noise impacts vary greatly because of the different types of construction equipment used. Short-term construction noise impacts tend to occur in phases, initially dominated by earth-moving equipment, then by foundation and building superstructures, parking area construction, and finally interior building construction.

Demolition and construction activities will result in temporary noise impacts in the immediate project vicinity. Any vibration due to heavy equipment operations in area soils typically is dissipated within 50 feet, before it would reach offsite residences near the project site. Construction employee-related traffic will not significantly increase traffic-related noise in the site vicinity. However, there may be a relatively high single event noise level of 87 dBA at 50 feet from passing trucks related to construction. Since

truck traffic is related to equipment delivery, demolition, and building material transport, it is intermittent and does not result in a significant impact to noise receptors along the truck routes and within the local area. The project will not create excessive ground-borne vibration or noise levels. No sources of ground-borne noise are proposed (e.g., pile driving) as part of the project.

Noise generated by onsite construction operations will differ by construction phase, equipment usage and level of construction activity. The range of construction equipment noise levels is shown in Figure 9 4 in Appendix F. Typical construction equipment noise levels at 50 feet from the operation may range from 70 dBA for generators and compressors to 85 dBA for front loaders, graders and concrete mixers. Noise ranges are usually similar during all phases of construction and may range up to 90 dBA at 50 feet during the noisiest construction phases.

No pile driving is proposed on campus. Excavating machinery, earthmoving and compaction equipment typical operate at full power for one to two minutes, followed by three to four minutes at lower power setting, creating fluctuations in noise levels. The construction equipment of most concern for noise impacts offsite are jackhammers (e.g. portable or machine-mounted pneumatic equipment powered by diesel engines), concrete saws (e.g. either single or multiple speed electric or diesel powered) and concrete pumps and cement trucks using fast-pour quick set techniques.

Structural attenuation varies from 10 dB for least favorable conditions (e.g., single-pane sliding windows, slightly open) to 30 dB for optimum noise reduction (no windows, solid wall). Dual-pane sliders with air conditioning provide 25 dB noise reductions. The use of air conditioning to allow for window closure in existing classrooms will minimize the noise disturbance of construction near existing buildings on campus.

Project-Related Traffic Noise Impacts

Long-term noise increases related to completion of 2012 FMP construction projects and increased student enrollments are vehicular noise increases on adjacent roadways. Noise increases due to increased traffic has been projected using the CALVENO computer projection model. Table 3.6.5 summarizes the 24-hour CNEL level increases due to the project and the buildout (2020) increase due to the project. All projected noise increases due to project traffic are less than 1 dBA and are Less than Significant.

Table 3.6.5
Project Traffic Noise CNEL Increases (dB CNEL)

Roadway Segment	Existing Due to Project[1]	Buildout (2020) Over Existing[2]	Buildout (2020) Due to the Project
HAWTHORNE BOULEVARD			
North of Manhattan Beach Blvd.	0.0	0.1	0.0
Manhattan Beach Blvd. to I-405	0.0	0.1	0.0
PRAIRIE AVENUE			
North of Manhattan Beach Blvd.	0.0	0.1	0.0
South of Manhattan Beach Blvd.	0.0	0.1	0.0
North of Redondo Beach Blvd.	0.0	0.1	0.0
South of Redondo Beach Blvd.	0.0	0.1	0.0
YUKON AVENUE			
Redondo Beach Blvd. to Artesia Boulevard	0.2	0.3	0.2
LEMOLI AVENUE			
North of Manhattan Beach Blvd.	0.2	0.2	0.2
CRENSHAW BOULEVARD			
North of Manhattan Beach Blvd.	0.1	0.2	0.1
South of Manhattan Beach Blvd.	0.2	0.3	0.2
North of Redondo Beach Blvd.	0.2	0.3	0.2
South of Redondo Beach Blvd.	0.2	0.3	0.2
North of Artesia Blvd.	0.2	0.3	0.2
Artesia Blvd. to 182nd St.	0.2	0.2	0.2
182nd St. to I-405	0.0	0.1	0.0
South of I-405	0.0	0.1	0.0
MANHATTAN BEACH BOULEVARD			
I-405 to Hawthorne Blvd.	0.1	0.2	0.1
Hawthorne Blvd. to Prairie Ave.	0.2	0.2	0.2
East of Prairie Ave.	0.2	0.3	0.2
West of Lemoli Ave.	0.3	0.4	0.3
Lemoli Ave. to Crenshaw Blvd.	0.4	0.5	0.4
East of Crenshaw Blvd.	0.0	0.1	0.0
REDONDO BEACH BOLEVARD			
West of I-405	0.0	0.2	0.0
I-405 to Prairie Ave.	0.1	0.2	0.1
Prairie Ave. to Yukon Ave.	0.1	0.3	0.1
East of Yukon Ave.	0.2	0.3	0.2
West of Crenshaw Blvd.	0.1	0.2	0.1
East of Crenshaw Blvd.	0.1	0.3	0.1

ARTESIA BOULEVARD			
Yukon Ave. to Crenshaw Blvd.	0.0	0.1	0.0
East of Crenshaw Blvd.	0.0	0.1	0.0
182ND STREET			
West of Crenshaw Blvd.	0.0	0.1	0.1
Crenshaw Blvd. to I-405 NB Ramps	0.1	0.1	0.1
East of I-405 NB Ramps	0.0	0.1	0.0
Source: Table 8, Mestre Greve Associates, Appendix F. 1 Existing Plus Project scenario. 2 Post-Project Scenario with ambient and other projects based on Congestion Management Program traffic methodology.			

Table 3.6.5 shows that the project does not substantially affect future cumulative traffic noise levels at buildout in 2020. Cumulative noise impacts are projected using existing, background ambient and other project trips to project future CNEL noise levels. This procedure is consistent with the Congestion Management Plan analysis for traffic impacts.

A comparison of the CNEL at 100 feet for each roadway segment for existing conditions (Table 3.6.3) and project buildout (Table 3.6.5) indicate the increases are not significant.

The project does not have a cumulatively considerable noise impact, as defined in Section 15130 of the CEQA Guidelines. Cumulative noise impacts are addressed in County and City General Plans when the Circulation Element and Noise Element are updated.

Table 3.6.6
2020 Cumulative Traffic Noise Levels

Roadway Segment	CNEL @ 100 ft from Centerline	Distance to CNEL Contour (feet)		
		70 CNEL	65 CNEL	60 CNEL
HAWTHORNE BOULEVARD				
North of Manhattan Beach Blvd.	64.7	RW	95	205
Manhattan Beach Blvd. to I-405	64.9	RW	98	212
PRAIRIE AVENUE				
North of Manhattan Beach Blvd.	64.2	RW	88	190
South of Manhattan Beach Blvd.	64.1	RW	87	187
North of Redondo Beach Blvd.	64.1	RW	87	187
South of Redondo Beach Blvd.	63.6	RW	81	175
YUKON AVENUE				
Redondo Beach Blvd. to Artesia Boulevard	52.8	RW	RW	33
LEMOLI AVENUE				
North of Manhattan Beach Blvd.	50.0	RW	RW	RW
CRENSHAW BOULEVARD				
North of Manhattan Beach Blvd.	64.6	RW	94	202
South of Manhattan Beach Blvd.	65.2	48	103	222
North of Redondo Beach Blvd.	65.3	48	104	224
South of Redondo Beach Blvd.	65.0	47	101	217
North of Artesia Blvd.	64.9	46	99	214
Artesia Blvd. to 182nd St.	65.4	49	106	228
182nd St. to I-405	66.3	57	123	265
South of I-405	67.0	63	136	293
MANHATTAN BEACH BOULEVARD				
I-405 to Hawthorne Blvd.	64.1	RW	85	183
Hawthorne Blvd. to Prairie Ave.	65.1	45	98	211
East of Prairie Ave.	65.1	45	97	209
West of Lemoli Ave.	65.3	45	98	211
Lemoli Ave. to Crenshaw Blvd.	62.3	RW	61	132
East of Crenshaw Blvd.	60.1	RW	46	100
REDONDO BEACH BOLEVARD				
West of I-405	62.3	RW	66	142
I-405 to Prairie Ave.	64.0	RW	85	184
Prairie Ave. to Yukon Ave.	63.8	RW	84	181
East of Yukon Ave.	63.7	RW	82	176
West of Crenshaw Blvd.	63.5	RW	79	171
East of Crenshaw Blvd.	64.4	RW	91	197

ARTESIA BOULEVARD				
Yukon Ave. to Crenshaw Blvd.	64.5	RW	92	199
East of Crenshaw Blvd.	65.3	49	105	225
182ND STREET				
West of Crenshaw Blvd.	61.2	RW	56	120
Crenshaw Blvd. to I-405 NB Ramps	63.8	39	84	181
East of I-405 NB Ramps	61.0	RW	54	117
Source: Table 9, Mestre Greve Associates, Appendix F.				

A. Introduction to Onsite and Offsite Construction Noise Impacts

Construction noise impacts from campus projects located adjacent to Manhattan Beach Boulevard (e.g. Shops demolition and construction, Technical Arts demolition, Lot C Parking Structure and Student Activities Center construction) are on the thirty-eight (38) residences located north of Manhattan Beach Boulevard is discussed in Section B. Ten of these lots have wooden or wire fences and no block wall.

Offsite impacts of demolition and construction of the Administration Building is discussed in Section C.

Construction noise impacts on multifamily residences south of Redondo Beach Boulevard is discussed in Section D. Offsite construction noise impacts from Murdock Stadium renovations is discussed in Section E.

Construction noise impacts from building the Lot C Parking Structure is discussed in Section F and construction noise impacts from renovation of Lot F Parking Structure is discussed in Section G.

The mobile construction equipment standards (Table 3.6.2) indicate the project cannot generate a noise level exceeding 75 dBA at the building face of single-family residences, 80 dBA at multifamily residences, and 85 dBA at the building face of business structures. Therefore, the construction noise threshold of significance used in this summary for project construction noise at the building face is 75 dBA for Sites 4 and 5, 80 dBA for Site 6 and 85 dBA for Site 7.

Special construction noise level standards of 75 dBA for Site 1 (active softball field and golf course uses) and Sites 2, 3 (passive recreational areas) are used for areas within Alondra Park and Golf Course. The State Noise/Land Use Compatibility Guidelines for

location of new open space and outdoor recreation areas is usually acceptable in areas up to 70 dBA CNEL and clearly unacceptable above 75 dBA CNEL. However dBA and dBA cannot be compared directly. The first is a single noise event, the second is a 24-hour noise measurement.

The noise analysis for the project focuses on projected noise levels at the building façade instead of at the property line since the key issues are noise impacts on residential areas (e.g. outdoor living spaces and interior living spaces). Block walls provide 12-15 dBA of sound attenuation and wall structures or garages provide approximately 20 dBA sound attenuation. However, the age and materials for construction, as well as windows may differ in sound attenuation characteristics.

B. Offsite Noise Impacts North of Manhattan Beach Boulevard (Sites 4)

Demolition of the Shops building, replacement of surface parking areas and new construction of the Shops, Student Activities Center and Lot C Parking Structure (3 levels) are the projects located closest to Manhattan Beach Boulevard. The exterior ambient noise level at Site is 85 dBA

The primary concerns are noise impacts from pavement saws and jackhammers removing the asphalt and demolition of the existing Shops building (105,908 OGSF).

The typical construction noise level for projects near Site 4 is 75 dBA and the maximum projected noise level is 86 dBA.

The physical characteristics of the thirty-eight (38) residential lots located north of Manhattan Beach Boulevard were reviewed in January 9, 2013. All of the lots, except the six lots adjacent to the entry street, have rear garages behind the residences. In general, the dwelling unit southerly façade is approximately fifty (50) feet north of the southern lot line. The garages provide additional noise attenuation from offsite construction noise for the residence itself from noise sources to the south. The six units adjacent to the three entry streets (e.g. Cerise, Lemoli and Chaldron Avenues) have garages facing the entry street that also provides noise attenuation for the residence for noise from the south.

The lots are approximately three feet higher than the street from the Dominquez Channel to west of Lemoli Avenue and two feet higher than the street easterly. A five to six feet perimeter block wall occurs along most of the segment that reduces construction noise by approximately 10 dBA. However, six (6) lots located east of Cerise have no block wall and four (4) units east of Lemoli Avenue have no block wall.

These ten (10) lots either have wooden or wire mesh fencing with or without landscaping that provide no noise attenuation.

In addition, two lots have two-story units (3212 and 3362 West 157th Streets). While both two-story units are of newer construction, 3212 West 157th Street has only four small windows at the second level facing south. 3362 West 157th Street has a second-story upper deck (with courtyard below) with a sliding glass door that may provide little noise attenuation from construction noise to the south. Therefore, while periodic construction noise impacts may not occur for most lots north of Manhattan Beach Boulevard, it may occur occasionally for some construction equipment operating at full volume near the campus perimeter when block walls are absent or for the single two-story residence with a second-floor outdoor deck. There are no feasible mitigation measures for sound attenuation of the second-floor outdoor deck living area.

Construction activities may result in significant noise effects without mitigation on Site 4. With the recommended mitigation measures, the project impact is Less than Significant with Mitigation Incorporated, except for the ten lots with rear wooden or wire fences facing Manhattan Beach Boulevard and two two-story units. Since the 75 dBA standard is an absolute standard, some demolition or construction impacts will violate the County standard even with the recommended mitigation measures below. Therefore, the construction noise impact for some of the residential lots facing Manhattan Beach Boulevard is Unavoidable Adverse.

As stated previously, there are ten lots with wooden rear fences that provide little or no noise attenuation from traffic noise on Manhattan Beach Boulevard. Any traffic noise impacts on these lots are not significant effects of the project. The noise increases due to trip increases at buildout of the 2012 FMP on Manhattan Beach Boulevard (Figure 13, Appendix B) are Less than Significant (Table 3.6.4) because they are projected as only 0.3 dBA to 0.5 dBA at buildout.

C. Offsite Noise Impacts East of Crenshaw Boulevard (Site 7)

Demolition of the existing Administration building (50,358 OGSF) and new construction of an Administration building are the only project planned along Crenshaw Boulevard. Construction of the Math Business and Allied Building is substantially complete, with only interior improvements remaining. The exterior ambient noise level for Site 7 was 82 dBA.

The typical construction noise level for the Administration project is 75 dBA and the maximum projected noise level is 85 dBA. If possible, the demolition of the

Administration Building on Saturday is discouraged because of potential church activities (16100 Crenshaw Boulevard) directly east on the Administration building.

Construction activities may result in significant effects without mitigation. With the recommended mitigation measures, the project impact at Site 7 is Less than Significant with Mitigation Incorporated.

D. Offsite Noise Impacts South of Redondo Beach Boulevard (Site 6)

Noise impacts from renovation of Lot F Parking Structure on multi-family residences south of Redondo Beach Boulevard may occur from use of concrete pumps, cement truck activity and jackhammering. The exterior ambient Lmax noise level at Site 6 was 81 dBA and the L50 was 70 dBA.

The typical construction noise level for the Lot F project near Site 6 is 75 dBA and the maximum projected noise level is 85 dBA.

Site 6 is located in the City of Torrance. Construction activities that substantially elevate the ambient noise environment at noise-sensitive uses for a substantial period of time; or that occur outside of the hours specified (7:30 AM to 6:00 PM Monday through Friday and 9:00 AM to 5:00 PM on Saturday) under the Torrance Municipal Code (Section 46.31) are significant effects. The college hourly standard is 7 am to 7 pm Monday through Saturday. Since peak hour traffic generates noise before 7:30 am weekdays and before 9:00 am on Saturdays, the revised standard is reasonable.

Construction activities may result in occasional significant effects at Site 6 without mitigation. With the recommended mitigation measures, the project impact is Less than Significant with Mitigation Incorporated.

E. Offsite Noise Impacts of Murdock Stadium (Sites 4, 6)

The existing Stadium (12,500-seat) is being renovated to conform to ADA requirements, to improve emergency access, to incorporate a running track and field for both football and soccer, and to assure public safety during future regional seismic events. The seating capacity is being reduced to 8,000 seats.

The exterior ambient monitored noise level at Site 4 was 85 dBA, at Site 5 80 dBA and at Site 6, 81 dBA respectively. However, noise monitoring was completed when no Stadium events were occurring. The typical construction noise level for the Stadium project is 75 dBA and the maximum projected noise level is 85 dBA.

The construction plan is to remove the existing earthen berms (128,500 cubic yards), construct new freestanding bleachers on two sides, increase the size of the field, and create “open” areas at the north and south ends of the field. Both the directional orientation of the Stadium and its footprint has changed from the 2003 FMP. A key consideration in Stadium design is maintaining fire and emergency access to all areas.

Events at the Stadium include football, men’s and women’s soccer games, the community 4th of July fireworks and graduation. In the 2012 fall semester, there were fifteen (15) events but only one football game. The majority of the events were soccer games beginning at 2 pm or 4 pm. Approximately 20-25 future events are projected per semester. Only about 3-4 events per semester would have attendance in excess of 1,000 persons.

Onsite noise generated by public address systems, crowd noise from athletic events or non-athletic entertainment (e.g. marching bands or special events) on campus may be audible off-campus during quiet periods.

Stadium crowd noise is anticipated to range from 70 to 80 dBA and will not differ greatly from events at the existing Stadium. Some direct noise propagation may occur at ground level to the north between the Shops and Bookstore buildings. The air conditioning chiller equipment at the Central Plan are an existing noise source north of the Stadium that results in some cumulative noise impacts. However, the 2003 FEIR concludes the Central Plant noise impacts were mitigated to Less than Significant with Mitigation Incorporated. Some restrictions on late night Stadium operations for large events cease by 11 pm to reduce noise transmission especially during some atmospheric conditions when noise travels further distances.

As stated in the noise report, the County of Los Angeles Noise Ordinance (Section 2.2.2) specifically exempts “activities conducted on public playgrounds and public or private school grounds including but not limited to school athletic and school entertainment events.” The noise study also notes that Stadium noise would be reduced by approximately 25 dBA for the residential neighborhoods north of Manhattan Beach Boulevard but some “noise bounce” effects (e.g. noise is directed upwards but then is deflected downward) may occur during certain atmospheric conditions.

The increase in Stadium noise due solely to its redesign of the 2003 FMP is Less than Significant. Noise impacts related to the public address system may be reduced by proper use of the sound equipment. Public address systems on campus should be located and adjusted to register no more than 70 dB Lmax at the offsite residences.

Stadium operations at late evening hours may result in significant effects without mitigation. With the recommended mitigation measures, the project impact is Less than Significant with Mitigation Incorporated.

F. Offsite Operational and Construction Noise Impacts of Lot C Parking Structure (Site 4)

The completed Lot F Parking Structure, three-levels or approximately twenty-five (25) feet above the existing ground elevation, does not significantly increase the noise levels for offsite residences (less than 0.2 dB). The nearest residences north of Manhattan Beach Boulevard near Lemoli Avenue are approximately 220 feet from the Parking Structure face to the rear yard boundary. The exterior ambient noise level at Site 4 was 85 dBA.

Vehicles using the top level of the parking structure will generate the most noise for offsite residents while the structure itself lowers noise levels for the remaining levels. It is anticipated that the top level would not be heavily occupied during the evening hours and not fully occupied during most periods of the day. (The projected total parking spaces on campus at buildout is estimated as 6,568 spaces, the spaces will occur throughout the campus and include the 2,329 spaces being added to the Lot F Parking Structure.)

The nearest portion of the proposed Lot F Parking Structure is approximately 220 feet from the nearest residence north of Manhattan Beach Boulevard. At this distance, the maximum parking noise level is expected to range from 53-58 dBA and not exceed a maximum noise level of 63 dBA (Noise Study, Appendix F). The projected noise level is less than the County's Noise Ordinance limits of 75 dBA. Noise levels on the lower levels of the Lot F Parking Structure away from the northern edge would generate noise levels 5-10 dB lower than noise on the upper levels. Therefore, the projected noise levels due to the Parking Structure on Site 4 are Less than Significant.

Other activity in the parking structure (e.g. door slam, engine start-up, car alarms) is anticipated to generate noise levels below the 65 dBA and 70 Lmax Noise Ordinance Limits. However, since car alarms are extremely annoying, a mitigation measure is recommended (e. g., tow the vehicle if the alarm persists) to reduce the most annoying noise levels.

The typical construction noise level for the Lot F project is 75 dBA and the maximum projected noise level is 86 dBA.

Construction activities may result in significant effects on Site 4 without mitigation. With the recommended mitigation measures, the project impact is Less than Significant with Mitigation Incorporated, except for lots with rear wooden fences facing Manhattan Beach Boulevard. Since the 75 dBA standard is an absolute standard, some demolition or construction impacts may violate the County standard even with the recommended mitigation measures below. Therefore, the occasional noise impact is Unavoidable Adverse.

G. Offsite Noise Impacts of Lot F Parking Structure Renovation (Site 5, 6)

Sites 5, 6 are the single-family residences north of Facilities and the multifamily residences south of Redondo Beach Boulevard south of Lot F Parking Structure.

Renovation of the Lot F Parking Structure will involve replacement of the floor panels, replacement of the ramps, new staircases, column extensions for the third level, solar panels above the third level, and interior renovations to assure public safety from future seismic events. The exterior ambient noise level for Site 5 was 80 dBA and Site 6 was 81 dBA.

The typical construction noise level for the Lot F project is 75 dBA and the maximum projected noise level is 80 dBA.

Noise impacts from Lot F construction for Site 5 are Less than Significant with Mitigation Incorporated. Noise impacts from Lot F construction on Site 6 are Less than Significant.

H. Offsite Noise Impacts of Lot F Parking Structure Renovation (Site 1, 2, 3)

Renovation of the Lot F Parking Structure will involve replacement of the floor panels, the addition of a new concrete floor base on the upper floors, replacement of the ramps, new staircases, column extensions for the third level, new elevators, solar panels above the third level, and interior renovations of girders, etc. to assure public safety from future seismic events. The ambient noise level for Site 1 was 78 dBA, 62 dBA for Site 2 and 63 dBA for Site 3. All three sites are adjacent to the Lot F Parking Structure in Alondra Park.

Construction of the Lof F Parking Structure will result in noise impacts within the park, intrusion of construction employees, vehicles and equipment and the establishment of a construction zone within the park. The zone may include access roads, equipment access, moving vehicles, construction staging areas, construction employee parking areas, etc.

The typical construction noise level for the Lot F project is 75 dBA and the maximum projected noise level is 95 dBA at 50 feet.

The majority of the park use near Lot F is for passive recreation (group picnic area, lakeshore, walking or jogging) and the active area is the softball field near Manhattan Beach Boulevard and the bicycle trail. The areas of greatest concern for project impacts are the passive recreation areas east of the lakeshore and the gated family picnic area near Redondo Beach Boulevard. Existing noise levels in this area are approximately 65 CNEL (77 feet from roadway centerline in Table 6, Appendix F).

The existing bicycle route in Alondra Park is adjacent to the Lot F Parking Structure from the north end of the lake to Redondo Beach Boulevard. (The trail is also an service road for park maintenance). Portions of the bicycle route and service road will need to be closed during one or more construction phases of the project. The minimum width of the closure is estimated as 15 – 20 feet.

During Phases 1 (southern) the bicycle route may need to be routed around the lake perimeter and the bike route signage moved to a new entrance near Redondo Beach Boulevard. Rerouting the bicycle route along the eastern (or western shore) of the lake is a potential alternate route, although there may be some conflicts between pedestrians and bicyclists using the same path. However, the volume of bicycle traffic in the park appears to be very low. During Phases 2, 3 (middle, northern) some or the entire bicycle trail may be closed. A bicycle route between Redondo Beach Boulevard to Manhattan Beach Boulevard will be retained during Lot F Parking Structure construction whenever feasible.

Construction plans, use of the park, park area closures, construction perimeter fencing and temporary improvements are dependent on stipulations approved in an Access Permit and Letter Agreement between the college and the County of Los Angeles Parks Department. The final Agreement will be available for review prior to the public hearing for the Final EIR.

The preliminary Lot F Parking Structure plan includes construction of a perimeter fence along that portion of the Lot F western perimeter required for equipment and material access to the Lot F phase under construction and a construction equipment staging area (Exhibit 8). Construction workers will be onsite from 7 am to 5 pm.

The proposed staging area is located within the park north of the lake north of the rectangular college surface parking lot extending from the Lot F parking structure. (The staging area or Lot F construction for Phase 2 (middle) may result in adverse noise

impacts upon the golf course because of the distance between the two land uses and the quietness during early morning hours. However, the staging area may be moved on campus for some phases of construction. The noise impact from the staging area will be reduced by the hourly restrictions but remains Unavoidable Adverse.

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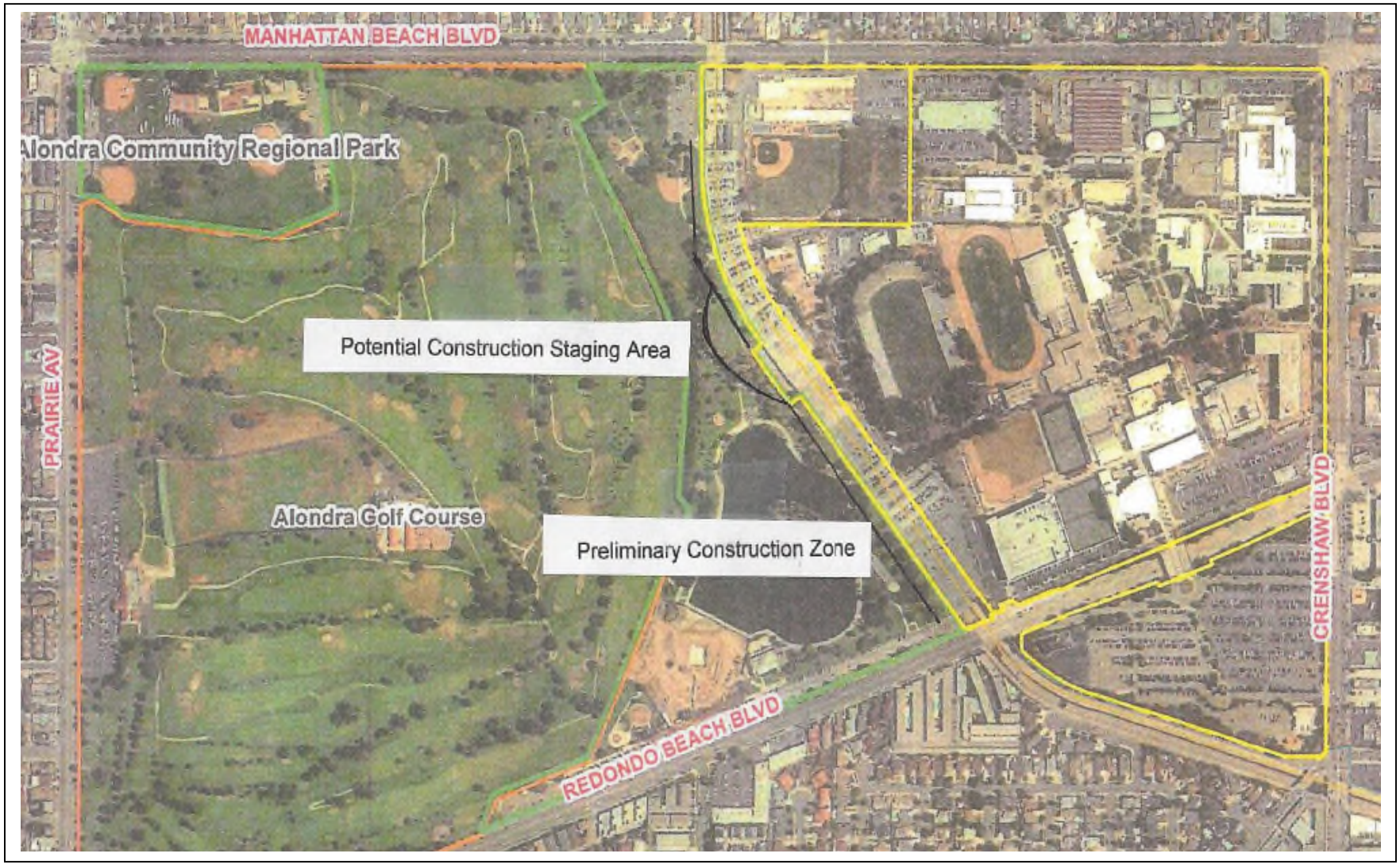
Exhibit 8
Preliminary Alondra Park Lot F Construction Zone



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Since the eastern portion of the park is designed for passive recreation (e.g. fishing, walking, picnics) or active recreation (e.g. bicycling, jogging and softball) the threshold of significance selected for construction noise impacts within the passive areas of the park along the lakeshore and the family picnic area is 75 dBA for the remainder of the perimeter area. These are not County park noise standards but standards selected for CEQA analysis.

The project will have a significant effect on the passive recreational areas (i.e. lakeshore and group picnic site) within the park for a minimum of 9-12 months. While construction will occur in three phases, construction access for Phase 2, 3 (middle, north) will be required from Manhattan Beach Boulevard. Construction of Phases 2, 3 will have a Less than Significant impact on the lake or group picnic site.

The primary Lot F construction noise impact for the lake and group picnic site occurs during Phase 1 (9-12 months), which may include fifty (50) Saturdays. No construction will occur on Sundays or after 6 pm Monday to Saturday. Construction impacts on the areas east of the lake will be reduced by the recommended mitigation measures below, but the remaining construction noise impact is Unavoidable Adverse.

The closest portion of the golf course is about 250 feet from the Westside of the Lot F Parking Structure. Construction noise levels would be reduced by approximately 14 dB by this distance. Therefore a 90 dB noise at 50 feet would be reduced to 76 dB at the golf course. This impact will be reduced by the recommended mitigation measures but remains Unavoidable Adverse.

Construction activities may result in significant effects on the southern segments of the eastern perimeter of Alondra Park without mitigation. With the recommended mitigation measures, the project impact is Less than Significant with Mitigation Incorporated for areas north of the lake. The noise impact from Lot F construction for the eastern lakeshore, the southeast family picnic area and some portions of the golf course near the proposed staging area is Unavoidable Adverse.

Contractors requiring use of park property are required to obtain an Access Permit and License Agreement, which usually takes 4-6 weeks to process. The college has initiated the permit process with the Real Estate Division of the County of Los Angeles Department of Parks and Recreation. The Lot F Parking Structure project must comply with both CEQA requirements and County of Los Angeles Parks and Recreation procedures.

I. Typical Offsite Construction Noise Impacts

While the County of Los Angeles Noise Ordinance specifies specific maximum limits for noise compliance, construction noise fluctuates over a considerable range, and typical construction noise levels are more illustrative of the future construction noise environment. The monitored L25 noise level indicates the monitored noise level is exceeded for 15 minutes in every hour (25 percent of the time). The County exterior noise standard is restated in Table 3.6.7 (footnote 2).

Table 3.6.7
Typical Construction Noise Levels (dBA)[1]

Impact Location Figure 6	Without Mitigation		Monitored Noise Level (L25)[3]	Project
	Demolition[2]	Construction[2]		
1	---	75	55	Lot F Parking Structure
2, 3	---	75	52, 57	Lot F Parking Structure
4	75	---	68	Shops/Technical Arts
4	---	75	68	Shops
4	---	75	68	Lot C Parking Structure/SSC
5	---	75	72	Lot F Parking Structure
6	---	75	64	Lot F Parking Structure
7	75	---	64	Administration
7	---	75	63	Administration

1 Projected noise levels due to mobile construction equipment at building face offsite.
2 County of Los Angeles Lmax noise standard for construction mobile equipment is 75 dBA at residential buildings and 80 dBA for commercial buildings or the ambient noise level. There is no County park construction noise standard so 75 dBA is used in this analysis.
3 Monitored on November 28, 2012 at 12:40-17:19 by Mestre Greve Associates for a period of 20 minutes or more at each location. L25 is the dBA exceeded for 15 minutes (25 percent) in any one hour period.

J. Onsite Construction Noise Impacts

All onsite construction must comply with the construction hours of 7:00 am and 7:00 pm, and prohibited on Sundays or Holidays. Each construction site shall have a secure perimeter and student pathways on campus revised if required. Structural attenuation in all existing campus buildings, dual-pane windows air conditioning systems will provide existing classrooms that minimize the noise disturbance of construction near existing buildings on campus.

Outdoor activity facilities (e.g. tennis courts, athletic fields, and exterior plazas will be exposed to adjacent construction activities. Construction noise will persist for individual projects until the shell building is completed and exterior landscaping installed.

When needed, some class lectures may be temporarily shifted to other locations if construction noise onsite in adjacent construction site is intrusive. In some instances, demolition scheduling may be shifted to day when students are not present on campus, or are on campus in lower numbers.

Construction noise impacts for buildings on campus are Less than Significant with Mitigation Incorporated.

C. Project Mitigation Measures for Noise

NO-01: All construction and general maintenance activities, except in emergencies or special circumstances, shall be limited to the hours of 7 am to 7 pm Monday-Saturday and prohibited on Sundays and legal holidays. Staging areas for construction shall be located away from existing offsite residences. All construction equipment shall use properly operating mufflers. These requirements shall be included in construction contracts and implemented. Facilities Planning and Services shall monitor compliance.

NO-02: Loudspeaker and other public address systems on campus shall be located and adjusted to register no more than 70 dB Lmax at the nearest offsite residences. Facilities Planning and Services shall monitor compliance.

NO-03: The College shall adopt policies and post signs in the parking structures indicating vehicles with alarms may be towed from parking areas if alarms sound for more than five minutes. The Campus Police Department shall ensure compliance.

NO-04: The construction contracts for demolition of the Shops and Technical Arts buildings shall require use of quieter jackhammers (i.e. rotary pneumatic compressors and electro-pneumatic jack-hammers) for removal of existing pavement on campus along Manhattan Beach Boulevard. The contract shall also limit the use of machine-mounted hydraulic jackhammers for building demolition and the use of asphalt removal equipment to 8 am to 5 pm Monday through Friday). Facilities Planning and Services shall monitor compliance.

NO-05: The construction contracts for demolition and construction of the Administration building shall require use of quieter jackhammers (i.e. rotary pneumatic compressors and electro-pneumatic jackhammers). Use of any machine-mounted hydraulic

jackhammers shall be limited to 8 am to 5 pm Monday through Friday. Hourly limitations do not apply when the building shell is complete. Facilities Planning and Services shall monitor compliance.

NO-06: The construction contracts for construction of the Lot C Parking Structure and Student Services buildings shall require use of quieter equipment (i.e. front loaders with rubber tires, factory recommended mufflers, onsite electrical sources for power equipment rather than diesel generators, sound blankets, temporary sound barriers as required by the college, and electric welders). Construction hours shall be limited to 8 am to 5 pm Monday through Friday. Hourly limitations do not apply when the building shells are complete. Facilities Planning and Services shall monitor compliance.

NO-07: The construction contracts for construction activities for Phase 1 of the Lot F Parking Structure renovation shall require use of quieter jackhammers (i.e. rotary pneumatic compressors and electro-pneumatic jackhammers) for work within 750 feet of the face of the apartment buildings south of Redondo Beach Boulevard and for work located east of the Alondra Park lakeshore. Facilities Planning and Services shall monitor compliance.

NO-08: The hours of operations of the Stadium facilities shall be limited to 7:00 am to 11:00 pm weekdays except for special events or occasions approved by the Director of Facilities. Weekend special events within the complex such as tournaments, day-long-meets, marching bands shall not begin before 8:00 am on Saturday or 9:00 am on Sunday unless approved by the Director of Facilities. A week in advance, users shall file an Operations Schedule with the Director of Facilities for special events that identifies hours of use and major noise sources. The Facilities Planning and Services shall ensure compliance.

NO-09: The College shall apply for an Access Permit and Letter of Agreement with the County of Los Angeles Park Department concerning the construction activities and operations occurring near or within Alondra Park prior to commencement of the project. All construction contracts for the Lot F Parking Structure renovation shall implement the mutually agreed on construction operations, standards and mitigation measures to reduce adverse noise, aesthetic, land use and intrusion impacts within Alondra Park. These measures may include limitations on use of specific areas, specified hours of use for specific areas, use of specific construction equipment with reduced noise characteristics, park patron public safety measures, perimeter fencing and security. Special attention shall be given to any feasible mitigation measures that will reduce offsite construction noise impacts within the park east of the lake. The Agreement shall address all post-project conditions that must be implemented, park design standards

and financing responsibilities. Facilities Planning and Services shall monitor compliance.

NO-10: At least one week prior to commencement of each major construction phase (including demolition and building construction phases), the prime contractor shall post notices of the expected duration and times of construction activities in a public viewing location visible from Manhattan Beach Boulevard. A contact name and 24-hour phone number for the contractor shall be identified in the notices to address any citizen concerns. The prime contractor shall review the phone messages daily and respond to the messages within 24-hours. A summary of all citizen concerns shall be forwarded to the Director of Facilities or his assignee by e-mail within two working days of receiving a message. Any major citizen concern shall be forwarded to the Director of Facilities or his assignee within eight hours. A written record of all messages received, and when and how the concern was addressed, shall be maintained by the prime contractor. The written records shall be forwarded to the Director of Facilities or his assignee monthly. All construction contracts for the prime contractors shall include this requirement. Facilities Planning and Services shall ensure compliance.

D. Level of Significance for Project Noise Impacts

Less than Significant with Mitigation Incorporated, except for: (1) Construction noise impacts of Lot F Parking Structure construction on the areas within Alondra Park east of the lake and (2) Construction noise impacts from staging area upon the adjacent golf course and (3) Demolition noise impacts of the Shops and Technical Arts buildings and construction on ten residential lots with wooden rear fences located north of Manhattan Beach Boulevard.

E. Cumulative Impacts on Noise

See Table 3.6.4 and Table 3.6.5 above. The project does not have a cumulatively considerable impact, as defined in Section 15130 of the CEQA Guidelines. Cumulative noise impacts are addressed in County and City General Plans when the Circulation Element and Noise Element are updated.

F. Mitigation Measures for Cumulative Noise Impacts

None are required.

G. Level of Significance for Cumulative Noise Impacts

Not applicable.

3.7 SOILS/GEOLOGY

A. Existing Conditions for Soils/Geology

Existing Conditions

General Information

The project site is part of the Inglewood Quadrangle, which covers an area of about 62 square miles within the Los Angeles Basin. The Quadrangle contains a northwest-trending uplifted area consisting of the Baldwin Hills and the Rosecrans Hills. The hills are geomorphic features associated with uplift along the Newport-Inglewood structural zone. Older Quaternary units are exposed in these strongly dissected hills, and elevations range from 75 feet to over 400 feet. To the east, Holocene alluvium lies upon the regional coastal plain, also known as the Downey Plain. The sediments overlie an erosional surface of late Pleistocene age.

To the west of the Rosecrans Hills is an elevated plain underlain by older Quaternary alluvium. This area contains a drainage basin, with Holocene sediments, that narrows to the south into the Dominguez Channel. Within the southwestern corner of the quadrangle Pleistocene dune sand overlies older alluvial deposits. The main drainage courses within the Quadrangle are the Dominguez Channel, Compton Creek and Centinela Creek.

The oldest geologic units mapped in the Inglewood Quadrangle are the Pleistocene Inglewood Formation (Q_i) and San Pedro Formation (Q_{sp}) which are exposed in the Baldwin Hills. A reddish brown, well-cemented and resistant, locally pebbly or gravelly, silty sand caps some of the ridges in this area and is designated older alluvium (Q_{oa}). The campus has two types of sediments. Younger floodplain and stream deposits (Q_{ya2}) occur along the Dominguez Channel. The younger alluvial valley deposits usually consist of ten to twenty feet of soft to firm clay and clayey sand. These materials overlie dense sands and stiff clays of older alluvium. The remainder of the campus area is predominantly older alluvium (Q_{oa}). The elevated plain usually consists of older alluvium overlain, in part by stabilized older dunes. The dune sand is up to fifteen feet thick and is composed of medium dense fine silty sand and silt. Locally, the top ten feet of this unit may be very loose. Underlying and adjacent to this unit, the older alluvium is medium dense to very dense sand, silty sand, clayey sand and silt and very stiff clay (*Seismic Hazard Evaluation of the Inglewood 7.5-Minute Quadrangle*, Los Angeles County, California, 1998, pp. 5-8 and Plate 1.1).

The project site is not included on the most recent *Alquist-Priolo Earthquake Fault Zoning Map (Inglewood Quadrangle, Special Studies Zones, July 1, 1986, Division of Mines and Geology).* The closest Special Studies zone is north of El Segundo Boulevard and Vermont Avenue. However, potentially active earthquake fault lines are located northeast and southwest of the campus. The Puente Hills Fault extends northwest to southeast from near the intersection of the Harbor Freeway (Interstate 110) and the Santa Monica Freeway Interstate 10) in Los Angeles County to north of the Artesia Freeway (State Route 91) and the Orange Freeway (State Route 57) in Orange County. (S*eismic Hazard Evaluation of the Inglewood 7.5 Minute Quadrangle, Los Angeles County, California*, Department of Conservation, 1998).

Exhibit 9
Active Faults Near Campus

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The Newport-Inglewood Fault extends from east of Interstate 405 (San Diego Freeway) and the Santa Monica Freeway (Interstate 10) southeast into coastal Orange County. The fault crosses the Harbor Freeway (Interstate 110) north of the Century Freeway (Interstate 105) and crosses the Pasadena Freeway (Interstate 110) east of the Harbor Freeway. Therefore, the Newport-Inglewood Fault is approximately three miles from the campus. A branch of the Newport-Inglewood Fault may extend to the intersection of Rosecrans Boulevard and Western Avenue, approximately two miles northeast of the campus (*Physical Setting Source Map, 0969679.1s*, Environmental Data Resources Inc).

Other faults in the project region include the Santa Monica, Raymond, Palos Verdes, Sierra Madre, and Whittier faults. The San Andreas Fault is more than 60 miles from the campus, but is important because of its associated greater magnitude. The Sierra Madre-San Fernando Fault generated a 6.7 quake in 1994. There has been no major quake on the Newport-Inglewood Fault since the 6.3 earthquake in 1933. Due to the distance of the closest active fault to the campus, ground rupture is not a significant hazard on campus.

The average peak acceleration (g=gravity) of area earthquakes damage is slight in specially design structures but considerable in ordinary substantial buildings with partial collapse, great in poorly built structure when accelerations reach 0.34 to 0.65.

Table 3.7.1
Horizontal Peak Ground Accelerations of Area Faults

Fault Name	Distance to Campus	Magnitude of M_{max}	PGA (g) from M_{max}	MMI from M_{max}
Palos Verdes	0–6.6	7.3	1.1–0.6	XII–X
Puente Hills Blind Thrust	0.5–6.2	7.1	1.3–0.6	XII–X
Puente Hills (Coyote Hills segment)	0.5–6.2	6.6	1.3–0.5	XII–X
Puente Hills (Los Angeles segment)	8.3–15	6.6	0.3–0.15	IX–VIII
Puente Hills (Santa Fe Springs)	10–16	6.5	0.3–0.13	IX–VIII
Newport-Inglewood (Onshore)	3–10	7.1	0.6–0.3	X–IX
Elysian Park Thrust	10–19	6.7	0.3–0.12	IX–VIII
Santa Monica	15–19	6.6	0.15–0.11	VIII–VII
Malibu Coast	16–20	6.7	0.13–0.11	VIII–VII
Hollywood	16–20	6.4	0.13–0.09	VIII–VII
Upper Elysian Park	12–19	6.4	0.18–0.12	VIII–VII
Anacapa-Dume	23–26	7.5	0.15–0.12	VIII–VII
Whittier	18–25	6.8	0.12–0.08	VII
Raymond	18–24	6.5	0.11–0.07	VII–VI
Verdugo	21–28	6.9	0.11–0.08	VII
San Andreas-1857 Rupture	47–54	7.8	0.08–0.07	VII–VI
Source: ECI Report, September 2005, M_{max}: Maximum magnitude of earthquake; the acceleration of gravity; PGA: peak ground acceleration as a percentage of g; MMI: Modified Mercalli Intensity.				

The campus includes no known mineral resource areas of value to the region or state. The *County of Los Angeles General Plan* does not identify any mineral resource area within the campus. The *County of Los Angeles General Plan* Seismic Zones exhibit (November 1980) indicates the campus is located in a Moderate Ground Response Zone. There are no recorded sites of archaeological significance within the campus area.

Site Specific Information

Law/Crandall completed a soils investigation for the police facility in 1998. The report did not evaluate seismic conditions or potential contaminants. Two borings were drilled onsite to a depth of 15 feet below existing grade. Fill soils were encountered from 2.0 to 4.5 feet below grade. The natural soils beneath the site consisted primarily of silty clay underlain by silt. Both the existing fill and the upper natural clay soils were regarded as highly expansive. The report also noted that water was encountered near the existing auditorium in 1976 at depths of 26 feet below existing grade. The soils encountered in the borings for the police station were not considered susceptible to liquefaction.

The natural soils beneath the campus, if the police station site is representative, consist primarily of silty clay underlain by silt. The upper clay soils are medium stiff to stiff, becoming stiffer with increased depth. The silt soils are firm. Both the existing fill and upper natural clay soils (dark brown in color) to depths of two to three feet into the natural soils are highly expansive and would swell and shrink with changes in the moisture content. Existing fill and disturbed natural soils will be excavated and replaced as properly compacted fill when required during construction.

Both the younger alluvium (Q_{ya2}) near the Dominguez Channel and the older alluvium (Q_{oa}) on the remainder on the campus have a low potential for liquefaction (*Seismic Hazard Evaluation of the Inglewood 7.5-Minute Quadrangle*, Los Angeles County, California, 1998, p. 9).

The depth of fill for any building site on campus is an important determinant of the amount of soil which needs to be removed and re-compacted for a stable building site. However, all sites are suitable for development with implementation of the recommendations of future geo-technical reports. Geo-technical investigations will be required for each building site or area included in the *Facilities Master Plan*.

Standard engineering practices and building requirements imposed by Title 24 of the State Building Code provide mitigation for regional seismic events. The design guidelines of the *1997 Uniform Building Code* require structures to be designed using the reduction in the peak ground acceleration of the ten percent probability of exceedance in 100 years. Future site specific studies will be completed to determine the Design Basis Ground Motion of future projects included in the *Facilities Master Plan*. These studies will be reviewed and approved by the California Division of State Architect. With implementation of the recommendations of the geo-technical reports, potential seismic project impacts are Less than Significant With Mitigation Incorporated.

Historically, California has suffered little tsunami or seiche damage, and the site is too distant from an ocean, lake or reservoir for hazards to occur. (Tsunamis are sea waves caused by sub-sea seismic activity, sub-marine landslides or volcanic activity and seiches are waves caused by seismic activity of lakes or reservoirs). There are no reservoirs or lakes in proximity to the campus and the pond in Alondra Park Golf Course pose no hazards to the campus.

MACTEC Engineering and Consulting completed a geotechnical investigation for the proposed Shops building in March 2011. They noted that the natural soils consisted of stiff to very stiff silty clay and lean clay with intermittent layers of stiff to very stiff sandy silt and silt. The site does not have the potential for seismic slope instability and the

potential for liquefaction, seismically-induced settlement, subsidence, flooding, tsunamis and seiches are low. The clayey soils are typically considered highly expansive and shrink and swell with fluctuations in moisture content. Groundwater was encountered at a depth of 35 feet in a 50-foot boring. Onsite ferrous metal soils result in severe sulfate attacks on Portland cement concrete.

The proposed Shops site is not within an Alquist-Portland Earthquake Fault Zone and is outside of the flood hazard areas. The site lies within 500 feet of the southern edge of the Alondra Oil Field and the potential for methane gas exists at the site. The firm concluded the Shops buildings may be supported by convention spread footings when established in the stiff to very stiff undisturbed natural soils. Any existing fill soils onsite must be removed and replaced as compacted fill. Two feet of relatively non-expansive soil must be placed upon floor slabs, pavement, and exterior concrete walks and slabs.

The Stadium site is similar, with a low potential for liquefaction, seismically-induced settlement, subsidence, flooding, tsunamis and seiches. However, the potential for methane gas also exists at the Stadium site. The existing fill soils are unsuitable for support of the proposed stadium structures and must be removed and replaced with properly compacted non-expansive fill soils.

The IDS Group completed a Structural/Seismic Engineering Assessment of thirty-nine buildings on campus in January 2013. The structural/seismic risk assessment includes site visits to observe building structural components (Primarily floor, roof and wall construction) and non-structural systems such as equipment, ductwork, conduits, piping, ceiling systems and façade elements. Available record construction documents were also reviewed to understand the buildings structural systems. A seismic risk rating, based on a scale of I (negligible risk) to VII (dangerous risk) were assigned to each building. Seismic performance checklists (ASCE 31-03 Standards) were completed for buildings included in the 2012 FMP to identify specific areas of deficiency and potentially unacceptable seismic performance. The three volume report is available for review upon request at Facilities Planning and Services.

Campus Adjacent Hazards

A review of available environmental data bases indicates no unresolved recognized environmental conditions on campus. Two projects near campus have recognized environmental conditions that are subject to enforcement actions from the California Regional Water Quality Control Board (CRWQCB). The projects are El Camino Plaza (16300 Crenshaw Boulevard) and the former Shell Station (16216 Crenshaw Boulevard). The Global IDs for the sites are T10000000941 and T060375013

respectively. The contaminant at both sites is gasoline and the potential for groundwater contamination. The former Shell site has ongoing remediation efforts since June 2002 and semi-annual reports are filed for the eight monitoring wells. The last monitoring report was filed in July 2012. According to the Geotracker data, the Shell "clean status" is now completed and the case is closed.

The extent of the contamination has not been determined from the El Camino Plaza site. The property owner is required to submit a Groundwater Monitoring Well Installation Work Plan and install at least six groundwater monitoring wells. However, the only correspondence available is dated March 2010 and no Work Action Plan has been submitted to date. Daniel Pirotton, the Regional Board Caseworker indicated the subject site is a low priority site for his agency because there is no production well within 3,000 feet of the subject property. However, he did express concern over the high levels of benzene monitored onsite (25,000 ug/L), which indicated a Work Plan was required.

IDS Group completed a draft geo-technical report for the Lot F Channel Parking Structure. The report is included in Appendix G. The report and the project is discussed in Section 3.9.

B. Project Impacts for Soils/Geology

Thresholds of Significance

Would the project: (a) Expose people or structures to potential substantial adverse effects, including the risk of loss, injury or death involving: (b) 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), (c) Strong seismic ground shaking? (d) Seismic-related ground failure, including liquefaction?, (e) Landslides?, (f) Result in substantial soil erosion or the loss of topsoil? (g) 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?, or (h) 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?

The geographical area for analysis for soils/geology is primarily the campus, but the region is the area used for probable regional seismic events.

Since the geotechnical reports for the Shops and Stadium project site indicates the Alondra Oil Field may cause methane offsite, additional evaluation was completed to firm its presence on the Shops project site. MACTEC Engineering and Consulting, Inc. completed a subsurface soil gas investigation of the Shops site in April 2011. The report is summarized herein and the text of the report, without appendices, is included in Appendix L. The complete report is available for review as a pdf file or at the Facilities Department.

MACTEC conducted a subsurface soil gas investigation in April 2011 for the proposed Shops project site. The thresholds of significance used in the study are those in the City of Los Angeles Site Testing Standards for Methane (Public – Building Code, Document No. P/BC 2002-101, November 30, 2004) and the California Department of Toxic Substances Control (DTSC) Review Draft Advisory Methane Assessment and Common Remedies at School Sites, September 26, 2003. A total of six shallow gas probes and three multiple-depth gas probes were used in the investigation.

Six shallow soil gas probes were installed at 5 bgs and sampled on April 13, 2011. Approximately 0.1 liters was collected for gas chromatography with flame ionization detection analysis using U. S. EPA Method 8015M for methane. The shallow gas samples were alos screened in the field for methane carbon dioxide, oxygen, nitrogen and barometric pressure with a Landtec GEM 200 portable gas analyzer.

Methane concentrations for the shallow soil gas samples were below the detection limits of the portable Landtec GEM-2000 gas sampling instrument and methane was not detected above the reporting limit in the six samples submitted for laboratory analysis.

Three multiple-depth gas probes were installed at 10 to 20 feet bgs. Two sequential sets of gas samples, separated by a minimum of 24 hours, were obtained from these sites on April 13 and 14, 2011. Approximately 0.5 liters of gas was collected from each of the deeper samples and analyzed using EPA Method 8015M and ASTM Method 1945-96. A total of 20 soil gas samples were analyzed for methane and fixed gases during the multiple-depth gas probe investigations.

Methane concentrations for the 18 soil gas samples for the multiple-depth gas probe tests were also below the detection limits of the portable Landtec instrument and methane was not detected above the reporting limit in the 20 samples submitted for laboratory analysis.

Therefore, the potential impact of methane at the Shops project site is Less than Significant. Since methane was not present at the Shops site, the consultants assumed

there is also no methane on the Stadium site, which is located south of the Shops facility and further away from the former Alondra Oil Field.

However, a soil gas assessment (e.g. methane and VOCs) shall be required for any project site in the 2012 FMP at the same distance as the Shops building from Manhattan Beach Boulevard or for any project site when (other than the Stadium) when a preliminary geotechnical evaluation indicates the potential for presence of methane.

If methane is present on a site, the quantities may differ between an existing site and a site prepared for new construction. Therefore, soil gas investigation for VOC and methane occurs after the site has been prepared (e.g. grading and trenching) for new construction. This procedure prevents any contamination bias between existing conditions and pre-construction soil gas vapor probe monitoring. This is standard procedure for project sites with potential methane contamination and does not represent any known or high probability of methane and VOCs at the campus sites cited above. The soil gas investigation assesses the possible presence and concentration, if any, of VOCs and methane in the subsurface soils throughout a prepared site.

While the contaminated groundwater near El Camino Plaza project is of general concern, it is not a project impact the 2012 FMP. El Camino Plaza is located on the southeast corner of Redondo Beach Boulevard and Crenshaw Boulevard. If the contamination extends southwest of the intersection, it would be located in Lot L and would not impact and structures on campus. Because of the depth of the contamination (20 feet below ground surface or more), the site likely poses no hazards for development on campus. Because the contaminated groundwater is not near any water wells, it is not a priority site for the California Regional Water Quality Control Board.

Proper geo-technical engineering and construction is required to prevent future structural damage to buildings and foundations on campus from area or regional faults. Geo-technical reports will be completed for specific building projects included in the 2012 FMP prior to grading or construction.

If de-watering is required for future projects on campus, any required permits would be obtained from the California Regional Water Quality Control Board.

The project will include renovation of many existing buildings and may include seismic strengthening and safety upgrades to some existing structures. All new construction will be in compliance with Title 24 (Uniform Building Code) and any recommendations of future geo-technical report(s) for projects included in the 2012 FMP will be

implemented. These measures will reduce any potential geotechnical impacts to Less than Significant With Mitigation Incorporated.

C. Mitigation Measures for Project Soils/Geology

GEO-01: Prior to implementation, a *Structural-Building Assessment* shall be completed for all buildings on campus proposed for renovation. Facilities Planning and Services shall monitor compliance.

GEO-02: All recommendations in the final geo-technical report(s) for future projects included in the 2012 *Facilities Master Plan* shall be included in construction contracts and implemented. The reports shall investigate both soil conditions and seismic hazards. Facilities Planning and Services shall monitor compliance.

GEO-03: During construction grading and site preparation activities, the Contractor shall monitor all construction activities. In the event a paleontological find or a potential paleontological find is discovered, construction activities shall cease and the Contractor shall inform the Project Manager. A qualified paleontologist shall be contacted to analyze the find and recommend further appropriate measures to reduce further impacts on paleontological resources. Facilities Planning and Services shall monitor compliance.

GEO-04: A subsurface soil gas investigation shall be completed for any project site (other than the Stadium and Shops) when the geotechnical report indicates the potential of methane. Facilities Planning and Services shall monitor compliance.

GEO-05: If a subsurface soil gas assessment (e.g. methane and VOCs) indicates the potential for presence of methane above Department of Toxic and Control Substances (DTSC) and City of Los Angeles Department of Building and Safety (DBS) methane action levels, final design grading shall be completed prior to implementation of soil gas monitoring. The soil gas monitoring shall evaluate the VOCs and methane concentrations throughout the project site. If additional measures are required they shall be designed to prevent accumulation of methane at actionable levels within confined spaces (e.g. ventilated attic spaces, installation of vapor barriers beneath structures, etc.). Within 60 days of the completion of soil gas monitoring on a graded site, a report shall be submitted to DTSC for review. Any measures required by DTSC for soil gas levels onsite shall be implemented prior to construction. Facilities Planning and Services shall ensure compliance.

D. Level of Significance for Project Soils/Geology Impacts

Less than Significant with Mitigation Incorporated.

E. Conditions for Cumulative Soils/Geology

There are no other projects in the vicinity of the campus. The soils/geology conditions near campus are likely similar to those of the campus.

F. Cumulative Impacts for Soils/Geology

No cumulative impacts have been identified.

G. Mitigation Measures for Cumulative Soils/Geology Impacts

None are required.

H. Cumulative Level of Significance for Soils/Geology

Less than Significant with Mitigation Incorporated.

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3.8 HISTORICAL RESOURCES

A. Existing Condition s for Historical Resources

Historic resource evaluations for buildings more than 45 years old proposed for demolition in the 2012 FMP were evaluated by Daly & Associates and are summarized herein. The complete reports are included in Appendix H. Previous records (DPR 523) completed in 2003 by Timothy Gregory, RPH are also included in Appendix G.

A historic evaluation of eleven buildings was completed by Timothy Gregory in 2003 (Historic Resources Impacted by the Proposed Campus Master Plan El Camino College, July 17, 2003 and Additional Historical Resources Found on the Campus of El Camino College November 7, 2003). The focus of the research was whether any buildings onsite were of local or regional historic significance. These evaluations were based on the 2002 Facilities Master Plan.

Of the eleven buildings evaluated in 2003, four buildings were classified as 5S1. This classification is for buildings not eligible for the National Register, but of local interest and eligible for listing in a local historic resources survey and thus also potentially eligible for listing on the California Register of Historical Resources. To be determined eligible, the resources need to have been surveyed and documented in accordance with policies and procedures recognized by the State Office of Historic Preservation (SHPO) and formally nominated to the California Register. To be actually listed on the Register, the resources' owner must approve. Neither the County of Los Angeles nor the college has a local historic ordinance or regulation.

The four buildings classified as 5S1 and their dates of construction were: (1) Murdock Stadium (1951), (2) Field House (1949), (3) Humanities (1950) and (4) Business (1953). Both the Humanities and Business buildings have been replaced by new construction.

Seven buildings were evaluated as not significant because they no longer retained sufficient integrity and their original appearance has been severely changed. These buildings were classified as 5S3; not eligible for the National Register or for a local historic resources survey, but eligible for consideration in local planning.

The seven buildings classified as 5S3 are: (1) Shops (1949), (2) Administration (1950), (3) Student Activities Center (1950), (4) Library (1952), (5) Technical Arts (1959), (6) Student Services Center (1950-56) and (7) Social Science (1960). (Social Science was renovated and modernized by new construction in 2012).

The Historic Context of the college was described in the 2003 historic resource study and expanded in the 2012 historic resource study.

An EIR must be prepared with a sufficient degree of analysis to provide the Lead Agency with information that enables them to make decisions that intelligently takes into account environmental consequences. An evaluation of the environmental effects of a project need not be exhaustive, but the sufficiency of an EIR is reviewed in light of what is reasonably feasible. Substantial evidence includes facts, reasonable assumptions predicated upon facts, and expert opinion supported by facts. Disagreement among experts does not make an EIR inadequate, but the EIR should summarize the main points of disagreement among the experts. The courts do not look for perfection but for adequacy, completeness and a good faith effort at full disclosure (CEQA Guidelines, Sections 15151, 15384). Both the 2003 and 2012 historic resource studied concluded that the master plan would adversely impact provisionally eligible historic resources (i.e. not formally determined eligible).

An important court decision (*League for Protection of Oakland's Architectural and Historic Resources versus City of Oakland (1997) 52 Cal.App.4th 896*) has influenced the methods and standards historic resource analysts use to evaluate historic resources. The historic context, building identification, building documentation and architects representing the Mid-Century Modern era in Southern California is also an important research topic that is now required in CEQA documentation of historic resources. The 2012 historic study accommodates these concerns.

While the District is the lead agency is regards to historic resources, the California State Parks Department's Office of Historic Preservation is the responsible agency that maintains the State Historic Resources Inventory, a compilation of all resources formally determined eligible for or listed in the National Register of Historic Places, the California Register of Historical Resources or designated as State Historical Landmarks or Points of Historical Interest. The Los Angeles County Historical Landmarks and Records Commission is an interested agency and reviews and recommends cultural heritage resources in the unincorporated area for inclusion in the State Historic Resources Inventory.

Pamela Daly, MSHP, inspected the buildings on campus, reviewed accessible archival sources for the campus, completed photographs, and used the National Register and California Register criteria to evaluate the significance of the buildings and structures at the campus. The primary reference documents with guidelines for conducting the historic survey were: (1) U. S. Department of the Interior, National Register Bulletin #24 Guidelines for Local Surveys: a Basis for Preservation Planning (revised 1985), (2) U. S. Department of the Interior, National Register Bulletin 15, "How to Apply the National

Register Criteria for Evaluation (revised 1991) and California Office of Historic Preservation, Instructions for Recording Historical Resources, 1955.

Documents used to evaluate buildings that will be renovated include: (1) The Secretary of the Interior's Standards for the Treatment of Historic Properties (Grimmer and Weeks, 1995, (2) Guidelines for the Treatment of Cultural Landscapes (National Park Service, 1996) and, (3) State Historical Building Code.

In addition, archival copies of the Los Angeles Times from 1935 to 2012 were accessed; site-specific research was conducted on the subject property using maps, original blueprints and drawings, newspaper articles, historical photographs and other published sources, including the Avery Index to Architectural Periodicals. Background research was performed on relevant architects and their firms through written publications and internet websites. Ordinances, statutes, regulations, bulletins and technical materials related to federal, state and local historic preservation, designation assessment processes and related programs were reviewed and analyzed.

The 2012 historic resource study focused the analysis on the theme of Educational Buildings 1946 to 1968. The historic context is expanded in the 2012 report and is not summarized herein. The complete reports are included as Appendix H.

The interim Board of Trustees selected the architectural firm of Marsh Smith & Powell to first prepare plans for the buildings and campus in January 1947. Norman Marsh (1871–1955) graduated from the Cornell University School of Architecture in 1897. In the late 1920s, he was the head of the USC office of campus architect. After six years with other partners, he created the firm of Marsh, Smith & Powell in 1906. David Smith graduated from Stanford University School of Architecture and Herbert James Powell (1898-1996) graduated from Harvard.

Howard Henry Morgridge (1919–2001) who earned his degree from the USC School of Architecture became a principal partner of the firm in 1947 and would continue to be the primary architect for the college until the late 1980s. The partnership was considered an architectural firm of merit because of their constant adherence to use new architectural styles and design trends while meeting their client's needs.

Both Herbert Powell and Howard Morgridge were named Fellows of the American Institute of Architects (AIA) in 1947 and 1966 respectively. The AIA College of Fellows, composed of members elected by a jury of their peers, recognizes the achievements of the architect as an individual and elevates before the public and the profession architects who make significant contributions to architecture and to society.

Fellow of the American Institute of Architects (FAIA) is a “postnomial” title (i.e. following the name), designating an individual who has been named a fellow of the AIA. Fellowship is an honor bestowed by the AIA on architects who have made outstanding contributions to the profession through design excellence, contributions in the field of architectural education, or to the advancement of the profession. Fellowships are awarded according to the following categories of nomination:

- To promote the aesthetic, scientific, and practical efficiency of the profession;
- To advance the science and art of planning and building by advancing the standards of architecture education, training, and practice;
- To coordinate the building industry and the profession of architecture;
- To ensure the advancement of the living standards of people through their improved environment;
- To make the profession of ever-increasing service to society.

Becoming a FAIA is considered a great honor; slightly more than 2,600 or 2 percent of all registered architects in the United States are elected to fellowship in the AIA (2008).

Among the MSP projects are Pasadena High School, Taper Hall for the Humanities at USC, First Methodist Church in Long Beach, Fist Baptist Church in Pomona, a group of campus buildings at the University of Redlands, Suva Street School in Montebello, Corona-Del Mar Elementary School, Roosevelt School in Santa Monica, and Upland Elementary School. The firm won the National First Honor Award at the AIA annual conference in 1949 for Corona Del Mar School and for the design of the Santa Monica City College campus in 1954.

In a 1951 article in *Architect and Engineer Magazine,* Howard Morgridge remarked that seldom has a junior college had an opportunity to grow from the soil, free from the inheritance of cast-off high school plant with its inadequate site which forever paralyses a college plan and thwarts future growth.” He was referring to the El Camino campus buildings and master plan.

Not confined by existing buildings and with ample acreage, MSP was free to design a group of buildings all integrated in style, features and details. Using the International Style of modern architecture that began after World War II, MSP created a collection of buildings over a 22-year span that referenced the design elements of the International Style, such as contrast of light and dark elements using projecting and receding masses and features, contrast of horizontal and vertical elements, contrast of hard and soft elements using rough brick versus smooth concrete finishes, “spider leg” support posts, glass curtain walls, floating buildings, butterfly roofs, curved walls in landscapes and

outdoor corridors, and a repeated decorative motif. The Planetarium shows the use of a new architectural style popularized in the late 1960s, New Formalism.

B. Project Impacts on Historical Resources

The thresholds of significance used for historic analysis are standards issued by the State Office of Historic Preservation (SHPO). SHPO standards also coincide with standards issued by the National Park Service. A project may have a potential historic impact if it is recommended as eligible for the National Register of Historic Places or the California Register of Historical Resources. The geographic area used for historic resource analysis is the campus.

In order to be eligible for listing in the CRHR, a building must satisfy at least one of the following four criteria:

1) It is associated with events that have made a significant contribution to the broad patterns of local or regional history or the cultural heritage of California or the United States.
2) It is associated with the lives of persons important to local, California, or national history.
3) It embodies the distinctive characteristics of a type, period, region, or method of construction, or represents the work of a master or possesses high artistic values.
4) It has yielded, or has the potential to yield, information important to the prehistory or history of the local area, California, or the nation.

Historical resources eligible for listing in the CRHR must meet one of the criteria of significance described above and retain enough of their historic character or appearance to be recognizable as historical resources and to convey the reasons for their significance. For the purposes of eligibility for CRHR, integrity is defined as “the authenticity of an historical resource’s physical identity evidenced by the survival of characteristics that existed during the resource’s period of significance” (Office of Historic Preservation 2001). This general definition is generally strengthened by the more specific definition offered by the NRHP - the criteria and guidelines on which the CRHR criteria and guidelines are based.

A historic district is a group of buildings that physically and spatially comprise a specific environment, or a cohesive collection of buildings that re related in their architectural style and period. The National Register defines a historic district as one that possesses a significant concentration, linkage, or continuity of sites, buildings, structures, or

objects united historically or aesthetically by plan or physical development. Contributing buildings to a historic district do not have to individually significant.

A historic context is a broad pattern of historical development in a community or its region that may be represented by historic resources. The historic context developed for the campus survey is based on research of the history of El Camino College, its role in post-World War II college education and the history of the project architects that were highly respected for their design of educational complexes. The campus includes a cohesive group of Mid-Century Modern buildings (particularly International style) present on campus today.

Six additional buildings on campus that are proposed for replacement in the 2012 FMP were not evaluated in the 2003 historic study. Daly & Associates has evaluated the six buildings, which were constructed from 1958 to 1972. The six buildings are: (1) Communications (1962), (2) North Gym/Physical Education North (1955), (3) Music/Campus Theatre (1967), (4) Physical Education South/South Gym (1949), (5) Art/North B/Gallery (1955) and (6) Technical Arts (1959).

The 2012 historic resource study concluded the collection of buildings on campus designed by Marsh Smith & Powell (MSP) and their heirs between 1949 and 1968 are considered eligible for listing in the National Register of Historic Places (NRHP) under Criteria C and in the California Register of Historical Resources (CRHR) as a historic district under Criteria 3. CHR Status Codes Criteria 3D is “appears eligible for National Register or California Register through survey evaluation.” An El Camino College Historic District would include a collection of buildings constructed over a 22 year span that are related by architectural design and project architects.

The architectural description of each of the twenty-four buildings in the 2012 historic study is included in Appendix H and is not included herein.

The 2012 historic evaluation concludes that two buildings, the Planetarium and the Administration building are provisionally individually eligible for the National Register under Criteria C for architectural type, period, region, and architect and are provisionally individually eligible for the California Register under Criteria 3 for architectural type, period, region and architect. Both buildings are also recommended as Contributors to an eligible historic district. The CRHR Status Code is 3CB: appears eligible for the California Register both individually and as a contributor to a CR eligible district through a survey evaluation.

Buildings are not deemed eligible unless the property owner agrees and an application is approved by the State Office of Historical Preservation (SHPO).

However, twenty buildings on campus (including the Planetarium and Administration) are considered Contributors to an eligible historic district. These buildings are identified below. Three of the buildings rated as Contributors are subject to renovation only (Library, Marsee Auditorium and Natural Science).

The State Historical Building Code (SHBC) was created to improve the protection and enhancement of historic structures. The SHBC provides alternative building regulations for the rehabilitation, preservation, restoration, or relocation of structures designated as historic buildings. SHBC regulations are intended to facilitate restoration or accommodate change of occupancy while conserving a historic structure's original or restored architectural elements and features.

The proposed historic district is eligible under NHRP Criteria C for architectural type, period, region and architect and eligible under CRHR Criteria 3 for architectural type, period, region and architect. The historic district and the two individual buildings are eligible under NHRP Criteria C and CRHR Criteria 3 as a cohesive collection of Post World War II Modern Architecture under the Theme of Educational Buildings 1946 to 1968. They are also eligible for having been planned and designed by the architectural firm of Marsh, Smith & Powell, primarily by Howard Morgridge, FAIA, for over forty years.

Three buildings are not considered Contributors to an eligible historic district (Library, Shops and Facilities).

Table 3.8.1
Campus Historical Resource Ratings

Historic Resource	Buildings Constructed up to 1969	Date of Construction	Contributor to Historic District	National Register and California Register Criteria	California Historical Resource Status Code
	Shops	1949	N		
	Library	1952	N		
	Facilities	1958	N		
El Camino College Historic District (1949 – 1969)		1949 - 1969		Meets NR criterion C. Meets CR criterion 3.	3D
	Field House	1949	Y		
	South Gym	1949	Y		
	Administration[1]	1950	Y[1]	Meets NR criterion C. Meets CR criterion 3.	3CB
	Activities Center	1950	Y		
	Life Sciences	1951	Y		
	Murdoch Stadium Track, Restrooms	1951	Y		
	Art – North Wing	1955	Y		
	Music and Campus Theater	1955	Y		
	Physical Education – North	1957	Y		
	Physics	1958	Y		
	Technical Arts	1959	Y		
	Student Services	1960	Y		
	Social Sciences[2]	1960	Y		
	Communications	1962	Y		
	Natural Science	1962	Y		
	North Gym	1963	Y		
	Auditorium	1967	Y		
	Art and Behavioral Science	1968	Y		
	Math/Computer[3]	1969	Y		
	Planetarium[1]	1969	Y[1]	Meets NR criterion C. Meets CR criterion 3.	3CB

Source: Table 1, Daly & Associates, Appendix H
1 Building is also Individually Eligible
2 The $5.7 million renovation of the Social Science building is complete.

Demolition or significant alteration of the twenty (20) buildings recommended as Contributors to an eligible historic district (Table 3.8.1) is regarded as a significant adverse impact on a historical resource. Substantial adverse change means the physical demolition, destruction, relocation, or alteration of a resource or its immediate surroundings such that the significance of a historic resource would be materially impaired. The significance of a historic resource is materially impaired when a project demolishes or materially alters in an adverse manner those physical characteristics of a resource that convey its historic significance and that justify its eligibility for inclusion in the National Register or California Register.

Implementation of the recommended mitigation measures below will reduce but not eliminate the significant effect on historic resources. (With revisions in code classifications, all adopted mitigation measures for historical resources in the 2003 FEIR are included in the recommended 2012 Mitigation Monitoring Program).

Table 3.8.2
Campus Historic Resources Ratings (Buildings to be Demolished)

Historic Resource	Buildings to be demolished[2]	Date of Construction	Contributor to Historic District	National Register and California Register Criteria	California Historical Resource Status Code
El Camino College Historic District (1949 – 1969)		1949 - 1969		Meets NR criterion C. Meets CR criterion 3.	3D
	Shops	1949	N		
	Field House	1949	Y		
	South Gym	1949	Y		
	Administration[1]	1950	Y[1]	Meets NR criterion C. Meets CR criterion 3.	3CB
	Activities Center	1950	Y		
	Murdoch Stadium Track Restrooms	1951	Y		
	Art – North Wing	1955	Y		
	Music and Campus Theater	1955	Y		
	Physical Education – North	1957	Y		
	Technical Arts	1959	Y		
	Student Services	1960	Y		
	Communications	1962	Y		
	North Gym	1963	Y		
	Art and Behavioral Science	1968	Y		

Source: Table 2, Daly & Associates, Appendix H
1 Building is also recommended as Individually Eligible.
2 The $5.6 million renovation of the Social Science building is complete and is not listed herein.

There are thirteen (13) buildings proposed for demolition in the 2012 FMP that are recommended as contributors to a historic district.

Currently, there are twenty-four (24) historic districts listed on the National Register in the County of Los Angeles. Eleven districts are located in the City of Los Angeles and seven in Pasadena. Santa Monica College is not listed on the National or California Register but Scripps College for Women in Claremont was listed on the National Register in 2008. Seven California colleges are listed on the National Register but not as historic districts.

Table 3.8.3
Listed Historic Districts in Los Angeles County

District	Year Listed	City (County)
Alvarado Terrace Historic District	1984	Los Angeles (Los Angeles)
Bungalow Heaven Historic District	2008	Pasadena (Los Angeles)
Edison Historic District	1986	Pomona (Los Angeles)
Lincoln Park Historic District	2004	Pomona (Los Angeles)
Little Tokyo Historic District	1986	Los Angeles (Los Angeles)
Lower Arroyo Seco Historic District	2005	Pasadena (Los Angeles)
North Arnaz Drive Historic District	1990	Beverly Hills (Los Angeles)
North Harper Avenue Historic District	1996	West Hollywood (Los Angeles)
Old Pasadena Historic District	1983	Pasadena (Los Angeles)
Orange Heights-Barnhart Tracts Historic District	1995	Pasadena (Los Angeles)
Park Place-Arroyo Terrace Historic District	2007	Pasadena (Los Angeles)
Pasadena Playhouse Historic District	1994	Pasadena (Los Angeles)
Prospect Historic District	1983	Pasadena (Los Angeles)
Redondo Beach Original Townsite Historic District	1988	Redondo Beach (Los Angeles)
South Bonnie Brae Tract Historic District	1988	Los Angeles (Los Angeles)
South Marengo Historic District	1982	Pasadena (Los Angeles)
South Pasadena Historic District	1982	Pasadena (Los Angeles)
South Serrano Avenue Historic District	1988	Los Angeles (Los Angeles)
St. James Park Historic District	1991	Los Angeles (Los Angeles)
Twentieth Street Historic District	1991	Los Angeles (Los Angeles)
Van Buren Place Historic District	1989	Los Angeles (Los Angeles)
Venice Canal Historic District	1982	Los Angeles (Los Angeles)
Whitney Heights Historic District	1982	Hollywood (Los Angeles)
Wilton Historic District	1979	Los Angeles (Los Angeles)
Source: Office of Historic Preservation – Listed Resources (National Register)		

Currently, there are no historic districts on college campuses.

The following table lists the estimated repair and replacement costs for buildings proposed to be demolished which are recommended as contributors to a historic district. The repair costs are regarded as a minimum cost because they do not account for costs of meeting historic resource building standards but are general repair costs to meet CalGreen building standards.

Table 3.8.4
Repair and Replacement Costs
(Selected Potential Historic Resource Buildings Only)

Buildings	Date of Construction	Estimated Repair Cost (millions)	Estimated Replacement Cost (millions)	Facility Conditions Index (FCI)
Field House	1949	3.57	3.53	101.1
South Gym	1949/55	27.5	35.96	76.6
Administration	1950	15.55	20.36	76.5
Activities Center	1950	10.17	13.38	76.0
Art North and Behavioral Science	1955	34.78	46.48	74.8
Music and Campus Theater	1955	27.09	34.17	79.0
Physical Education North and Men's Gym	1958	39.42	56.71	69.5
Technical Arts	1959	18.28	24.18	75.6
Student Services and Math Science	1960	12.12	16.58	73.1
Communications	1962	13.13	16.81	78.1
Source: 2012 Facility Assessment Report. FCI + Cost of all of a facility's deficiencies versus the facility's replacement value, which provides an estimate of the facility's condition. An FCI of greater than 10% indicates a facility in poor condition. Costs do not include costs for structural upgrades. Data for Murdoch Stadium was not available.				

As stated the FCI for the buildings indicate all of the buildings are in poor condition. The Community College Chancellor's will consider a building for replacement rather than renovation when the FCI exceeds 60 percent. Using this guideline, which is only one of numerous factors in determining if a building should be replaced, suggests all of the buildings listed above should be replaced.

The IDS Group completed a structural seismic assessment for the buildings listed in Table 3.8.5 in January 2013. The scope included an evaluation of seismic risks along with preliminary building retrofit costs. The complete report is available for review upon request at Facilities Planning and Services.

Table 3.8.5
Seismic Assessment of Historic Resources

Buildings	Date of Construction	Seismic Risk Rating	ROM Retrofit Cost (000)[1]	Seismic Retrofit Priority[2]
Shops	1949	Severe	4.00	High
Field House	1949	Serious	0.20	High
South Gym	1949	Serious	0.30	High
Administration	1950	Serious	1.00	High
Activities Center	1950	Serious	0.50	High
Murdoch Stadium Track, Restrooms	1951	n/a	n/a	n/a
Art North Wing	1955	Serious	1.00	High
Music	1955	Serious	2.50	High
Campus Theater	1955	Serious	2.00	High
Physical Education North	1958	Serious	0.50	High
Men's Gym	1963	Severe	0.90	High
Technical Arts	1959	Serious	2.00	High
Student Services	1960	Severe	1.00	High
Communications	1962	Serious	1.50	High
North Gym	1963	Severe	0.90	High
Art and Behavioral Science	1968	Severe	2.00	High
Source: Structural/Seismic Engineering Assessment El Camino College, Volumes 1-3, IDS Group, January 2013. 1 - ROM: Rough Order of Magnitude. 2 - Priority is assigned based on consideration of the seismic risk level, cost and ratio of seismic retrofit cost to building replacement cost. Seismic Risk Ratings are in Table 2.1, IDS Structural/Seismic Assessment El Camino College, Volume 1. n/a: not available.				

A seismic risk rating of Severe (V on a scale of VII) implies a seismic damageability of 20 to 50 percent and a rating of Severe (VI on a scale of VII) implies a seismic damageability of 40 to 100 percent when subject to a design level earthquake (2/3 MCE). The only higher seismic rating is Dangerous (VII) with 100 percent implied seismic damageability.

C. Mitigation Measures for Project Historical Resource Impacts

HR-01: If feasible, the District agrees, and an application for a Historic District for the campus is approved by SHPO, all subsequent activities related to the 2012 Facilities Master Plan that avoid adverse impacts by not materially altering the physical characteristics of buildings designated as Contributors to a Historic District must be implemented. Facilities Planning and Services shall ensure compliance.

HR-02: If feasible, the District agrees, and an application for a Historic District for the campus is approved by SHPO, the District shall retain the services of a qualified historic preservation consultant with experience in architectural preservation to review structural designs and monitor construction activities affecting historic resources to ensure protection of the historic fabric and compliance with approved designs in conformance with the Secretary of the Interior's Standards for the Rehabilitation of Historic Properties. Facilities Planning and Services shall ensure compliance.

HR-03: If an application for a Historic District for the campus is not approved, documentation shall be completed for all buildings recommended as Contributors to a Historic District using the Historic American Building Survey (HABS) Level 2 standards as guidelines for recording the buildings through photographs, drawings and written descriptions. Facilities Planning and Services shall ensure compliance.

D. Level of Significance for Project Historical Resources Impacts

Unavoidable Adverse Impact

E. Cumulative Historical Resources Conditions

There are no other known historic resources in the campus vicinity.

F. Cumulative Impacts on Historical Resources

None

G. Mitigation Measures for Historical Resources Cumulative Impacts

Not applicable

H. Level of Significance of Historical Resources Cumulative Impacts

Not applicable

3.9 LOT F CHANNEL PARKING STRUCTURE

A. Existing Conditions for Lot F Channel Parking Structure

The Lot F Channel Parking Structure is located above the Dominquez Channel on the west side of the campus. The County of Los Angeles Department of Public Works: Flood Maintenance Division has an easement for the channel and the District owns the property. The existing two-level 1,747 parking space structure is located on approximately twelve (12) acres and was built in 1969. Approximately 1,634 spaces are currently available within the structure.

The lower parking level includes structured parking over the flood channel and spans 83 feet, with on-grade parking east of the flood channel and a two-way drive on the west side of the channel. The structure is supported on piles and conventional concrete footings. The facility includes cast-in-place concrete columns and beams, precast double-tree beams, and pre-stressed plans with concrete topping. The precast double-tee beams were custom manufactured and with a span of 83 feet could be considered one of the largest-ever built for a parking structure in Southern California. The parking structure was designed to accommodate one additional level of parking.

The parking structure is adjacent to Alondra Regional Park and Alondra Golf Course to the west. Alondra Park and Golf Course is operated by the County of Los Angeles Department of Parks and Recreation. The park is open from dawn to dusk daily. The County of Los Angeles recently completed a $16.5 million expansion of recreation facilities in the park, including a 25 x 25 meter pool, a 6,000 square foot pool house and recreation building, and a 3,000 square foot splash pad. The park also includes a 14,000 square foot skateboard park, a new restroom building and new picnic shelters.

The golf courses (North and South Course) occupy the western portion of the project site and a retention pond, open space and trails (Alondra Park) occupy the eastern portion of the project site adjacent to Lot E and the Lot F Channel Parking Structure. The Alondra Park Country Club is located in the middle of the golf course, with access from Prairie Avenue. The pro shop and driving range is near the Prairie Avenue parking. The Community Room and Gym are located in the northwest corner of the golf course and accessed from Manhattan Beach Boulevard. The new skate park and pool facilities are located southwest of the pond and a picnic area is located east of the pond. A softball diamond, restrooms and picnic area is located near the northeast corner of the park. Lot E and another surface parking area extending west of the parking structure mid-distance between Manhattan Beach Boulevard and Redondo Beach Boulevard occur today.

A row of trees separates the Golf Course from the more passive recreation adjacent to the Parking Structure.

The passive park area ranges in width from approximately 200 feet to 800 feet with the pond in the southern portion. Trees are adjacent to the Parking Structure along most of the western perimeter. Two buildings are offsite in the park near the northern edge of the Parking Structure and east of the pond. Two parking lots for the park are located along Redondo Beach Boulevard south of the pond. Therefore, the golf course is separated from the Parking Structure by the intervening park facilities.

The existing Parking Structure is a maximum of 22 feet high along the western perimeter and is open between the two levels, allowing views into the Parking Structure from the park to the west.

Exhibit 10 shows the park perimeter with the Lot F Parking Structure north of the and the distance from the Lot F Parking Structure to the Alondra Golf Course beyond the trees about a third of the distance south of Manhattan Beach Boulevard.

Other than the softball field near Manhattan Beach Boulevard, the primary areas of activity in the eastern portion of Alondra Park are the pond and the adjacent picnic shelter near Redondo Beach Boulevard. Activity in the remaining park area on the eastern side of the park is the bicycle trail on the service maintenance road.

The swim center and skate board park along Redondo Beach Boulevard, which is approximately ¼ mile from the Lot F Channel Parking Structure, is heavily used by area residents.

Exhibit 10
Alondra Park and Golf Course

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A condition assessment and geotechnical analysis for the Lot F Channel Parking Structure was completed by the IDS Group. The report is summarized herein and selected portions are included in Appendix G. The complete reports are available as pdf files or may be reviewed on campus at the Facilities Department.

Existing Structural Condition

In January 2006 Walker Parking Consultants performed a condition assessment of the Lot F Parking Structure report that addressed deferred maintenance items but no review of the structural integrity of the parking structure was completed at that time.

The IDS Group completed a structural and architectural condition assessment for the facility in March 2012. Upon investigation, significant concrete deterioration and rust was evident on numerous pre-stressed spancrete planks along the western drive lane. Significant floor cracks have occurred along the entire parking structure and one of the exterior precast barriers was damaged by a vehicle. Pieces of fallen concrete on the ground were also observed. Other observations included damaged expansion joints, sets of the precast doubles-tee beams, deterioration at the base of some concrete columns and staircase rust and the pre-stressed hollow core concrete spalling (i.e. chips or fragments). The elsomeric coating used to cover the upper deck was almost depleted and the expansion joints, with missing cover plates, were badly deteriorated. Because of clogged drains, rainwater has infiltrated though the concrete cracks and to the supporting concrete member, leading to steel corrosion and spalling of the concrete. The beam sets of various precast doubles-tees were cracked. Some damage has occurred in the girders for the double-tee beams of the second level at the south end of the parking structure. The south ramp entrance slab is also distressed with a separation at the expansion joist.

Based on the site assessment, the west drive land was closed to traffic along its entire length at both levels, a new lane east of the west lane was restriped to allow for traffic circulation and repair designs initiated to stabilize the damaged precast barrier panels. The Board of Trustees approved a scope of work for IDS in August 2012 to complete a seismic assessment and to provide architectural, engineering, design, construction administration and construction documents for the Lot F Parking Structure Improvement Project. The addition of a third level to the existing parking structure is feasible from an engineering standpoint.

Solar Addition

The renovation of the Lot F Parking Structure includes the addition of solar panels above a structural steel support system above the third parking level. Preliminary plans are for a 1MW electrical output system with fixed solar photovoltaic panels. The steel support system may be fifteen feet in height and the panels would extend three to four feet above the support structure. The solar system will interconnect to the main electrical 12 KW system on campus.

Each of the 4,000 rectangular fixed solar panels are approximately two by four feet and will cover approximately 145,000 square feet (43 percent of the third deck). Each panel is capable of generating 350 watts. Once the support structure is finished, the solar panels may be installed in 90 – 120 work-days. The solar panels will face south and low level parking structure lighting will be installed beneath the panels for the third parking level.

Construction Schedule

The preliminary construction schedule for the Lot F Parking Structure projects may continue for three years.

Table 3.9.1
Lot F Channel Parking Structure Phasing

Phase	Lot F Spaces	Campus Spaces Available	Campus Parking Surplus[1]
Existing Lot F[2]	1,634	4,917	+283
2012 – 2013	-545	4,372	-286
2013 – 2014	-545	4,627	-143
2014 -2 015	-544	4,906	+25
2015 - 2016	2,539	5,712	+680

Source: IDS Group and Kunzman Associates, November 3, 2012
[1] Based on 94% occupancy prior to construction (September 19, 2012) and 95 % occupancy during Lot F construction.
[2] Based on September 19, 2012 count of parked vehicles and available parking spaces.

Currently, there are 4,917 total spaces available for campus use (Table 1, Appendix B). If each parking phase can be occupied upon completion, the Lot F project will result in campus parking deficits for two academic years.

While no construction phasing plan has been approved by the college, the preliminary plans would result in the following:

1. During Phase 1, construction occurs in the southerly third portion of the structure. Access to the first level is from Manhattan Beach Boulevard, from a temporary access road during Stadium construction, and access from within the campus. Access to the second level is limited to the ramp from Manhattan Beach Boulevard.

2. During Phase 2, construction occurs in the middle third portion of the structure. Access is available from Redondo Beach Boulevard and from Manhattan Beach Boulevard. Limited access remains from within the campus.

3. During Phase 3, construction occurs in the northern third portion of the structure. Access for the remainder of the structure is available from Redondo Beach Boulevard, with limited access from through the campus. Access to the second level is from the south ramp only.

B. Project Impacts for Lot F Channel Parking Structure

The threshold of significance used for analysis of project impacts of construction and operation of the third-level of the parking structure are those previously stated for air quality and noise.

The threshold of significance for aesthetic impacts is whether the project substantially degrades the existing visual character or quality of the site and its surrounding, or if it creates a new source of substantial light or glare which would adversely affect nighttime views of the area.

The geographical area used for analysis of aesthetic impacts of the third-level of the Lot F Channel Parking Structure is the footprint and approximately 1,000 feet beyond the footprint.

The potential project impacts of adding a third-level of 770 spaces (October 2012) to the Lot F Channel Parking Structure include construction impacts and operational impacts. At completion, Lot F would have 2,327 spaces and Lot E will have an additional 32 spaces. The number of total spaces differs between the as-built plans and the existing parking configurations onsite.

The construction impacts of the Parking Structure include potential noise impacts and potential construction equipment emission impacts.

Construction Noise Impacts. The potential project construction noise impacts were evaluated in Section 3.6. Construction equipment noise will range from 70 to 85 dBA for short periods of time. Therefore, the golf course will be exposed to a maximum average noise level of 76 dBA at the western perimeter (e.g.at 250 feet). Noise ordinances exempt construction noise because it is intermittent, confined to the construction period, and often feasible mitigation measures are cost prohibitive. Since no pile driving is involved in construction of the Parking Structure, construction noise levels will be low or average magnitude and may range from 70-85 dBA at 50 feet.

The project will be constructed in three phases, since parking is needed for campus operations daily. The projected construction period is approximately nine (9) months for each of three phases. During each phase, the asphalt from the first level will be removed, the 20 foot bay panels on the second level along the westside will be removed and replaced, and new drilled columns completed to support the third level. No change in decking over the Channel is planned.

Since the area is urban, there is considerable area noise from adjacent streets and from campus activities. Construction noise from the Lot F Channel Parking Structure project will have no significant effect on classroom buildings to the east.

A construction yard for storage of equipment and materials for the Lot F project may be placed temporarily within Alondra Park adjacent to the parking structure. Potential locations for the construction staging area are immediately south of the softball field, or at the mid-point between the two streets, with access from Manhattan Beach Boulevard.

Construction noise impacts of Lot F project construction are evaluated in Section 3.6 (G) and are not repeated herein. The construction noise impacts are Unavoidable Adverse in the areas of Alondra Park east of the pond.

Construction Equipment Emission Impacts. The potential project construction air quality impacts were evaluated in Section 3.4. Construction emissions for the Parking Structure will be less than that projected for building facilities on campus because less equipment is involved. All construction equipment is required to adhere to State emission standards and will be required to adhere to the mitigation measures included in Section 3.4, which includes ultra-low sulfur fuel, SCAQMD regulations, and use of EPA-Certified Tier 4 construction equipment.

Construction Public Safety Impacts. Rehabilitation of the existing parking structure will occur by phases while portions of the structure are in use. All persons and vehicles, except construction employees will be excluded from the active construction area. It is also anticipated that adjoining vertical portions of the structure will exclude persons and vehicles (e.g. if rehabilitation work or new construction is occurring on a lower level, the upper level will also be closed to public use. Physical barriers and controlled access to the active construction area will block persons and vehicles from entering a construction zone. With proper construction management and construction procedures, the impact on public safety of rehabilitation and new construction in the Lot F Channel Parking Structure is Less than Significant.

Solar Panels Installation. There are no significant effects of installation or operating the solar system above the third level of the parking structure. No residential areas are close to the panels and no glare occurs from the photovoltaic panel on adjacent land uses. The existing trees within Alondra Park will provide separation from views of the panels from the Alondra Golf Course and no significant aesthetic effects of the panels occur for park users. A solar system generates no noise or air quality effects.

Loss of Parking During Construction. Parking spaces will be unavailable for public use during rehabilitation and construction in the Lot F Channel Parking Structure. Assuming that construction is scheduled in three phases, up to 545 spaces (i.e. on two levels) may be unavailable for use during any construction phase. Parking utilization at other lots and at Parking Structure H will increase during construction. Regular updates of the availability of parking in other locations on campus are needed to keep students informed of available parking. Surplus parking supply on campus during the first four weeks of each semester will be extremely limited during Lot F construction. The 2012 parking utilization survey (September 19, 2012) indicated 4,634 of the 4,917 available spaces were occupied (94 percent). Several mitigation measures are recommended below to increase the parking supply and lower parking demand during Lot F construction.

Based on the college's parking ratio of 0.28 spaces per FTES, the reduced parking during Lot F construction will accommodate up to 15,614 FTES. In 2011-2012 student enrollment was 16,400 FTES. Student enrollment growth is projected to increase by 453 FTES annually between 2011-2012 and 2020-2021. Therefore, the reduced parking supply will be adequate for less than two years. If construction of the Lot F project extends beyond two years, at least 13 additional spaces are needed for each additional year. The proposed new parking structure (Lot C) will not be available until June 2015. Since this summary does not include parking loss due to construction on other projects on campus, the need for temporary parking spaces may be greater than

stated. However, some temporary additional parking may be provided on campus when the Technical Arts building is demolished (80-100 spaces) and an additional 80 spaces in Lot B may be available when the MCS/STEM projects are completed.

Most property owners seek to maintain a maximum 90 percent utilization rate to minimize circulation of vehicles searched for an open space. With higher utilization rate, drivers will circulate more among parking lots or Parking Structure H to identify an open space. This causes driver frustration more than it causes significant air quality emissions. The campus operated at a 94 percent parking utilization rate at 10 – 11 am in September 2012. However, this rate is acceptable because it quickly lowers outside of this peak period.

Temporary Construction Parking. During construction on the Lot F Parking Structure, a temporary construction staging yard will be placed in Alondra Park at the existing softball field south of Manhattan Beach Boulevard. The yard will accommodate construction equipment, construction employee vehicles and construction materials. Since a campus parking deficit of approximately 300 spaces will occur during the first construction phase and approximately 150 spaces during the second phase, additional parking during Lot F construction is required. (These estimates assume all 752 spaces on three levels are available for use at the end of each construction phase).

Additional parking spaces are available along Manhattan Beach Boulevard between Prairie Avenue and the Dominquez Channel. Parking along this segment is currently allowed but seldom utilized. Sidewalks are available on both sides of the street to assure pedestrian safety. Approximately 110 parking spaces are available on the northside of Manhattan Beach Boulevard along the segment and 104 parking spaces along the southside for a total of 214 spaces. Some improvements may be needed for increased parking along this segment to ensure adequate site distances from intersecting streets and driveways, and some pedestrian crossing improvements may be required. Therefore, less than 214 spaces will be available and the public in general may use the spaces if desired. However, these spaces are used today and the number available during Lot F construction will be a percentage of the total and differs by the hour.

The college has several options for providing temporary parking spaces on or near campus during Lot F construction (Table 3.9.2). Additional parking spaces are available on public streets adjacent to campus but are not subject to exclusive use by students. For example, parking along the north side of Redondo Beach Boulevard east of Prairie Avenue to west of the SW campus entrance is allowed during non-peak hours (e.g. No Stopping 6-8 am, 4-6 pm).

Table 3.9.2
Temporary Parking During Lot F Construction

Temporary Parking Location	Maximum Spaces	Projected Student Availability
Manhattan Beach Boulevard (Prairie to Dominquez Channel)	214	100[3]
Alondra Park Softball Fields (northwest location)	80	60
Alondra Park Softball Field (northeast location)	100	70
Alondra Park (Redondo Beach Boulevard)	300	160
Alondra Country Club (Shuttle Required)	200	0
Offsite Rental East of Crenshaw Boulevard	0	0
Technical Arts Demolition (March 2014)	100	100
MCS/STEM Completion (August 2013)[1]	72	72
Removing Construction Storage from Lot L	13	13
Restriping of Existing Parking Lots	--	50
Less Student Monthly Bus Pass Discounts	--	85
Less Construction Employee Parking[2]		30
Subtotal	1,079	680
Lot F Parking Structure Phase 1-3 Closure		-545
Surplus or Deficit[4]		135

1 Included in Kunzman Associates parking study as New Lot 1 in 2020 totals in Table 18.
2 Construction employee parking of 30 employees daily assumed on campus.
3 Availability will differ by weeks into the semester and by hour of the day.
4 Does not include additional street parking with limited hours (e.g. peak hour restrictions).

While the mitigation measures recommended for increased parking on and off-campus during Lot F construction are anticipated to be effective, they rely on future agreements and future student parking and bus ridership preferences. Temporary parking will not accommodate all student parking demands during Fall and Spring semester registration periods with or without closure of the Lot F Parking Structure.

The dates when the temporary parking is available and how many spaces are available for student use along Manhattan Beach Boulevard, being they are unrestricted spaces, is uncertain. Therefore, the precise effectiveness of the mitigation measures cannot be accurately quantified, and some parking impacts may occur during Lot F construction. Therefore, the parking impact is Unavoidable Adverse.

Future Traffic Noise Impacts along Manhattan Beach Boulevard. Existing average daily traffic volumes along the segment are 18,900 ADT (Figure 4, Appendix B), existing am

peak volumes are approximately 1,845 trips and existing pm peak volumes are approximately 1,887 (Figures 5-6, Appendix B). The majority of campus traffic is outside of both peak periods. There is no significant increase in traffic noise along the segment due to increased parking. Noise levels due to additional vehicular parking along the Manhattan Beach Boulevard segment west of the Dominquez Channel will be less if an area is used by construction employees, since the vehicle turnover will be less than student parking.

Operational Noise Impacts. The potential operational noise impacts were evaluated in Section 3.6. Since vehicles using the Parking Structure enter and exit the Lot F Channel Parking Structure quickly, there is minimal exposure to vehicular noise from the addition of the third-level to the Parking Structure. While vehicle starting and doors closing generate some noise, it is not sustained and confined to the morning and evening periods when students are arriving or leaving campus. Approximately 50 percent of the student enrollment is during the day and ten percent of the total student enrollment occurs at the off-campus center, not on the main campus. The incremental increase in noise levels due to the addition of the third-level is Less than Significant.

Operational Vehicular Emission Impacts. The project operational air quality impacts were evaluated in Section 3.4. Vehicular emissions are regulated by national and state regulations and not by local jurisdictions. Since vehicles using the Parking Structure enter and exit the Parking Structure quickly, there is minimal exposure to vehicular emissions from the addition of the third-level to the Parking Structure. Vehicular emissions also dissipate quickly into the surface air. Therefore, the project impacts from vehicular emission impacts are Less than Significant.

Operational Aesthetic Impacts. Potential aesthetic impacts related to construction of the Parking Structure include the increase in height due to the third level, and an increase in nighttime lighting exposure offsite.

Since the park and golf courses are open only from dawn to dusk, park or golf course patrons are not exposed to light and glare impacts from the Lot F Parking Structure. Interior lighting is required for vehicular safety but few vehicles use the Parking Structure in the late evening hours. The project impacts from lighting offsite are not significant.

Addition of Solar Panels. Photovoltaic solar panels will be added above the third level of the parking structure, so the maximum height of the structure may be 35-40 feet. The cells will be static and not panels that track the sun for maximum generation.

The height of the parking structure will increase by approximately eleven (11) feet. The third-level deck will include the addition of solar panels, resulting in a total height of approximately thirty (35) feet. The existing landscaping within the park adjacent to the Parking Structure is approximately 20-40 feet in height. Therefore, the third-level addition will be screened from view from the golf course. A bicycle path along the service road is the park amenity closest to the Lot F Parking Structure perimeter. If landscaping within the park is damaged it will be replaced or restored prior to completion of the project. The project impact on park aesthetics is Less than Significant.

Upon completion, the Lot F Channel Parking Structure will include 2,327 spaces, with 793 on the first level, 764 on the second level and 772 on the new third level. Therefore, the net increase from the as-built plans is 610 spaces and from existing available spaces 693 spaces.

C. Mitigation Measures for Lot F Channel Parking Structure

Mitigation measures for replacement parking during construction on campus (Section 3.3) and air quality (Section 3.4), and noise (Section 3.6) impacts related to the Lot F Channel Parking Structure project are not duplicated below.

LF-01: Pedestrian and vehicular access to all active construction areas in the Lot F Parking Structure shall be restricted to ensure public safety. Construction vehicular equipment routes shall be planned to minimize conflicts with non-construction vehicles and pedestrians. Flag persons and special signalization shall be used to assure safe passage for construction equipment. Facilities Planning and Services shall ensure compliance.

D. Level of Significance for Lot F Channel Parking Structure

Less than Significant with Mitigation Incorporated

E. Cumulative Conditions for Lot F Channel Parking Structure

There are no additional projects in the campus area or near the Lot F Channel Parking Structure.

F. Cumulative Impacts for Lot F Channel Parking Structure

No Impact.

G. Mitigation Measures for Cumulative Impacts

None are required.

H. Level of Significance for Cumulative Impacts

Not applicable.

3.10 PUBLIC SERVICES

A. Existing Conditions for Public Services

B. Project Impacts on Public Services

The threshold of significance used for public service impacts is whether the project results 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 would cause significant environmental effects, in order to maintain acceptable service ratios, response times or other performance objectives of the public services.

The geographical area used for analysis of public services impacts is the campus and its immediate surroundings.

The evaluation of public services included in the 2003 Final EIR remains relevant and adequate for the 2012 Facilities Master Plan. Section 5.12 of the 2003 FEIR evaluated fire protection services, sheriff services, public safety; campus police department, sewer, public utilities, medical services and solid waste. All prior mitigation measures adopted for the 2003 FMP are required for the 2012 FMP. These mitigation measures are included in the recommended 2012 Mitigation Monitoring Program in Appendix I. The evaluation of transit services in the 2003 FEIR is being updated in the following Section 3.11.

The primary public safety concern on campus is motor vehicle theft. The McClery Report is included in Appendix L.

The Consolidated Sanitation District of Los Angeles County has indicated area wastewater treatment plants have the capacity to serve buildout of the project. The projected increase in average wastewater flows from the project is 36,020 gallons per day. The Joint Water Pollution Control Plant in the City of Carson has a design capacity of 400 mgd and currently processes an average flow of 265.4 mgd.

C. Mitigation Measures for Project Public Service Impacts

No additional mitigation measures are required.

D. Level of Significance for Project Public Service Impacts

Less than Significant with Mitigation Incorporated.

E. Conditions for Cumulative Public Services

There are no other current projects in the campus area.

F. Cumulative Impacts on Public Services

There are no other current projects in the campus area. Therefore, existing development is subject to the General Plan regulations of adjacent jurisdictions. The potential environmental impacts of existing and future developments in off-campus areas are subject to their own CEQA evaluations.

G. Mitigation Measures for Public Services Cumulative Impacts

None are required.

H. Level of Significance for Cumulative Public Services

Not applicable.

3.11 TRANSIT SERVICES

A. Existing Conditions for Transit Services

Planning for transit services in the project area is completed by the Southern California Regional Rail Authority (SCRRA), the County of Los Angeles Metropolitan Transit Authority (MTA), Torrance Transit System, Lawndale Beat System and Gardena Bus Lines. Briefly, the Southern California Regional Rail Authority operates the Metrolink rail system, the Los Angeles Metropolitan Authority operates express routes, the California Department of Transportation operates the park-and-ride lots near major freeways and Torrance, Gardena and Lawndale operates local and area transit services.

Southern California Regional Rail Authority. The SCRRA is a five county Joint Powers Authority that operates the Metrolink regional rail system and provides rail engineering, construction, operations and maintenance to its member agencies. SCRRA operates its Metro Green Line on tracks owned by Burlington National San Francisco (BNSF) with a station at Marine Avenue west of Interstate 405.

Park-and-ride facilities are located adjacent to the Galleria at South Bay (regional mall) along Artesia Boulevard west of Interstate-405, with access to the regional transit center at the mall.

Local Bus Systems. Gardena Municipal Bus Lines Route 3 runs along Redondo Beach Boulevard and Route 4 runs along Manhattan Beach Boulevard. Approximately 90 buses run along Redondo Beach Boulevard and five buses run along Manhattan Beach Boulevard.

The Lawndale Beat System Express Line runs along Prairie Avenue and has a stop at Manhattan Beach Boulevard.

The Torrance Transit System (TTS) provides service to the campus on Route 2 and Route 5. Route 2 transit service along Crenshaw Boulevard has stops at 166th Street, and Manhattan Beach Boulevard. Route 5 has stops on Crenshaw at 166th Street, Redondo Beach Boulevard and Manhattan Beach Boulevard. 27 buses run on Route 2 and 39 buses on Route 5 weekdays.

The MAX Municipal Area Express also runs along Crenshaw Boulevard and Manhattan Beach Boulevard. There are 8 MAX buses on Manhattan Beach Boulevard weekdays, with stops at Crenshaw Boulevard and Prairie Avenue. There are 8 MAX buses daily on Crenshaw Boulevard with a stop at 166th Street.

MTA provides service to El Camino College on Lines 126 on Manhattan Beach Boulevard and on Line 210 on Crenshaw Boulevard. Line 211 runs along Prairie Avenue and Line 710 runs along Redondo Beach Boulevard.

Line 126 has stops at Manhattan Beach Boulevard with Lemoli Avenue and with Chadron Avenue. Line 210 has stops at Crenshaw Boulevard at 166th Street, Redondo Beach Boulevard, near Administration on campus southbound and at Manhattan Beach Boulevard.

Each transit agency route maps and time tables were reviewed. The information indicates that approximately 460 buses daily weekdays operate near the campus. The statistics available on ridership to or from the campus bus stops is limited. However, it does provide an indication that the magnitude of bus ridership for campus commuters is approximately 3,300 riders daily.

Table 3.11.1
Estimated Bus Ridership to Campus

Dates Weekday	Boarding	Alighting	Estimated Ridership[3]	Buses Daily
Gardena Line 3/Redondo Beach Boulevard[1]				
Fall 2010			548	91
Gardena Line 4/Manhattan Beach Boulevard[1]				
Fall 2010			95	5
Lawndale Beat System/Express Route on Prairie Avenue				
			n/a	16
Torrance Route 2/Crenshaw Boulevard[2]				
Fiscal Year 2009-2010	103	n/a	n/a	27
Torrance Route 5/Crenshaw Boulevard[2]				
Fiscal Year 2009-2010	326	n/a	n/a	39
Torrance Max Express/Manhattan Beach Boulevard				
Not available			n/a	8
Torrance Max Express/Crenshaw Boulevard				
Not available	n/a	n/a	n/a	8
MTA 126/Manhattan Beach Boulevard				
October 2011	16	25	41	12
MTA 210/Crenshaw Boulevard				
October 2011	808	629	1,437	129
MTA 211/Prairie Avenue				
October 2011	na	na	na	16
MTA 710/Redondo Beach Boulevard				
October 2011	516	655	1,171	110
Totals				461
Minimum Ridership[3]			3,292	

1 Torrance Transit Routes 2, 5 have Crenshaw Boulevard stops at 166th, Redondo Beach Boulevard and Manhattan Beach Boulevard.
2 Line by Line Ridership Survey (Fall 2010) for Line 3 (Crenshaw & Redondo Beach Stop) and Line 4 (Manhattan Beach and Crenshaw Stop). Data is Daily Weekday Total and does not address Service Changes implemented on September 4, 2011.
3 Data estimates ridership and does not distinguish between students and other riders.

Source: Route maps, time tables for each bus company and correspondence. n/a not available

Current transit fares (October 2012) for students are $0.50 per ride or a $30 monthly pass for Torrance Transit, $0.70 per ride, with no monthly passes for Gardena, $1.50 per ride or a $36 monthly pass for MTA and $0.75 per ride or a $12 monthly for Lawndale.

Seventeen (17) existing bus stops on campus are identified in Figure 46 in Appendix C. Six bus stops occur along the Crenshaw Boulevard campus frontage, four bus stops occur on the eastside of Crenshaw Boulevard and two bus stops occur on both the north side and south side of Manhattan Beach Boulevard. Two bus stops also occur at 166th Street along Crenshaw Boulevard near the southeast entrance to Parking Lot L near the Child Development Center.

B. Project Impacts on Transit Services

The threshold of significance used to evaluate project impacts on transit services is whether sufficient transit facilities are available (e.g. number of buses and headways) , convenient for student use, and whether transit patron increases due to the project will adversely impact transit services. Generally, this implies the primary concerns are whether bus stops are located properly and buses provide frequent service for students near their residences.

The geographical area for analysis of transit services is the campus perimeter and offsite transit facilities that serve a large number of students.

The project will not have a significant impact on transit services. The local transit systems have ample capacity on their existing route segments to accommodate any increases in student ridership due to student enrollment growth.

Transit operators monitor passenger loads on an ongoing basis and may need to adjust schedules and frequencies as the 2012 FMP is implemented to best serve the campus and the surrounding area. The temporary closure of portions of the Lot F Channel Parking Structure and loss of parking on campus from other construction projects may increase existing bus ridership for campus patrons.

The project impact on transit service is Less than Significant. Although the project does not have a significant impact on transit services, the mitigation m from the 2003 FEIR is retained to facilitate student transit use and increase bus ridership.

Temporary measures to decease student parking demand during Lot F Parking Structure construction by providing rebates during purchase of transit passes is included in Section 3.3.

C. Mitigation Measures for Project Transit Service Impacts

TS-01: Schedule/fee information for Gardena Municipal Bus Lines, Torrance Transit System and the County of Los Angeles Metropolitan Transit Authority shall be made available for students for each term. The College shall offer students discount bus passes for transit lines which offer them. Planning and Services shall monitor compliance.

D. Level of Significance for Project Transit Services Impacts

Less than Significant with Mitigation Incorporated.

E. Cumulative Conditions for Transit Services

There are currently no other development projects or known transit service projects in the campus area.

F. Cumulative Impacts for Public Transit Services

There are no new cumulative public transit services impacts from known individual projects. The potential impact of public transit trips is included in the traffic studies for General Plan prepared for local cities and the County of Los Angeles. General Plans and General Plan Updates are subject to their own CEQA reviews. Development projects by a transit agency or changes in public transit services are evaluated by the agencies.

G. Mitigation Measures for Cumulative Transit Services

None are required.

H. Level of Significance for Cumulative Transit Service Impacts

Not applicable.

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3.12 PROJECT EFFECTS FOUND NOT TO BE SIGNIFICANT

This document is a Subsequent Program EIR (CEQA Guidelines, Section 15162) since new potential adverse project impacts not previously evaluated in prior CEQA documents (Certified Final EIRs) may occur with implementation of the *2012 Facility Master Plan (2012 FMP).* These topics were evaluated in Section 3.1 to 3.8.

Since the Lead Agency has concluded that the 2012 FMP may have a "potentially significant impact" or "potentially significant impact unless mitigated" impact on the environment and at least one effect has been adequately analysis in an earlier document pursuant to applicable legal standards and has been addressed by mitigation measures in the earlier analysis, this Draft EIR must analyze only the effects that remain to be addressed (CEQA Guidelines, Section 15183)s The 2003 FEIR (SCH 2002041161) certified in August 2008 meets this criteria.

In addition, the project is consistent with the County of Los Angeles and City of Torrance General Plans and Zoning. Projects meeting the criteria (CEQA Guidelines, Section 15183) require the Lead Agency to limit its examination of project-specific environmental effects which are peculiar to the project and were not analyzed as significant effects in a prior EIR.

Additional topics (not included in Sections 3.1 to 3.11 of this Draft EIR that were previously evaluated in the 2003 El Camino College Facilities Master Plan Final Program EIR (SCH 2003061012) are discussed below. Buildout of the 2012 FMP has a Less than Significant Impact on these issues. A summary of the CEQA Checklist for the 2012 FMP is included in Appendix I.

The 2012 Mitigation Monitoring Program (MMP) retains the mitigation measures or Conditions of Approval adopted for the 2008 FEIR that are relevant to the 2012 FMP. In many cases, only minor differences in language was required to update the mitigation measures for the 2012 MMP. Additional mitigation measures were added to the 2003 MMP based on this CEQA analysis. The recommended 2012 Mitigation Monitoring Program in included in Appendix J.

Project impacts of buildout of the 2012 FMP that were found to Less than Significant and/or adequately addressed in the 2003 FEIR are discussed below.

1. Aesthetics. Final EIR (SCH 2003061012 described the existing aesthetics conditions for the campus. The existing aesthetic conditions remain largely unchanged from August 2003, although two new projects were constructed (Lot H Parking Structure

and Humanities) and two projects are under construction (Social Science and Math Business Allied health). All existing campus facilities buildings are shown in Exhibit 4 and buildout of the 2012 FMP is shown in Exhibit 3. The 2012 FMP has no adverse impacts on aesthetic of the campus. A new analysis of aesthetic issues related to construction of the third level of parking at the Lot F Channel Parking Structure was included in Section 3.9. This analysis evaluates the aesthetic impacts of the third level on the adjacent Alondra Park, located immediately west of the parking structure.

The 2003 Final EIR remains adequate to address aesthetic issues for the 2012 FMP. Mitigation Measures for Aesthetics are included in the 2012 Mitigation Monitoring Program in Appendix J.

2. Agricultural Resources. The campus area is urban and there are no agricultural resources on or near the campus.

3. Biology. The campus is urban and no rare or threatened species reside there. Biological issues related to construction and tree removal were adequately addressed in the 2003 FEIR. Mitigation Measures for Aesthetics are included in the 2012 Mitigation Monitoring Program in Appendix J.

4. Hazards/Contamination. The 2003 Final EIR evaluated hazards/contamination conditions for construction and operation of the facilities on campus. The mitigation measures adopted for compliance with OSHA/SCAQMD asbestos-contaminated building materials removal, inspections by the State Fire Marshall and County of Los Angeles Fire Department and implementation of Phase One Environmental Assessment report recommendations are retained for the 2012 FMP. The 2003 Final EIR remains adequate to address hazards/contamination issues for the 2012 FNP. Mitigation Measures for hazards are included in the 2012 Mitigation Monitoring Program in Appendix J. There are no gas stations or other major source of contamination near the campus.

5. Hydrology/Water Quality. The 2003 EIR evaluated the hydrology/flooding conditions for the campus. Since the 2012 FMP includes more open space than the 2003 FMP, the amount of pervious area will increase and there will be less drainage originating on campus. Generally, the existing hydrology/flooding conditions remain unchanged and the mitigation measures adopted for compliance with a Master Drainage Plan and Storm Water Pollution Prevention Plans for onsite construction and obtaining any required de-watering permits from the California Regional Water Quality Control Board are adequate for the 2012 MMP. The addition of a third level of parking to the Lot F Channel Parking Structure has a Less than Significant Impact on drainage

since the exposed surface impervious area is unchanged. The 2003 Final EIR remains adequate to address hydrology/flooding issues for the 2012 FMP. Mitigation Measures for water quality are included in the 2012 Mitigation Monitoring Program in Appendix J.

6. Mineral Resources. There are no known mineral resources on campus.

7. Population/Housing. The 2003 FEIR did not identify any significant effects of increased student enrollment, construction or campus employment. Faculty and campus staff levels per student enrollment likely have declined with budget shortfalls in recent years, which are projected to continue in the future. Using a staffing ratio of one full-time staff/faculty per 25 FTES, buildout of the 2012 FMP would result in 145 additional FTE faculty and staff in 2020. The size and number of projects on campus under construction concurrently has not changed dramatically so 50 to 200 construction employees may be on campus during any construction period for implementation of the 2012 FMP. Any increases in faculty and staff have little or no adverse impact on area and regional population, housing or employment.

8. Public Services. The evaluation of public services included in the 2003 Final EIR remains relevant and adequate for the 2012 Facilities Master Plan. Section 5.12 of the 2003 FEIR evaluated fire protection services, sheriff services, public safety; campus police department, sewer, public utilities, medical services and solid waste. All prior mitigation measures adopted for the 2003 FMP are required for the 2012 FMP. These mitigation measures are included in the recommended 2012 Mitigation Monitoring Program in Appendix J. The prior evaluation remains adequate for the 2012 FMP and Mitigation Measures for public services are included in the 2012 Mitigation Monitoring Program in Appendix H.

The CalEEMod assumes water demand per student factors of 2,141 gallons/year for indoor use and 3,349 gallons/year for outdoor use for community colleges. Based on an increase of 3,625 FTES in 2020, the water demand increase for the 2012 FMP is 19.9 million gallons. Water conservation strategies will reduce this demand by 30 percent, which results in an increase of 13.9 million gallons per year. This equates to 61 acre-foot of water (1 AF = 325,851 gal). This increase will occur over a period of eight years.

El Camino College obtains its water from the Torrance Municipal Water District (TVMWD). The college's water rights are a matter of legal record and have never been disputed. The 2003 FEIR evaluated water demand and supply issues. Sufficient water supplies are available, without new entitlements to provide water for buildout of the 2012 FMP. The Final EIR remains adequate to address the water supply needed at

buildout of the 2012 FMP. Mitigation Measures for campus water demands are included in the 2012 Mitigation Monitoring Program in Appendix J.

9. Recreation. The nearest public recreation use near the campus is Alondra Park and Golf Course. Project impacts on the park were evaluated in Section 3.9. With abundant recreational resources on campus open to the public, the campus has No Impact on off-campus parks and recreational uses.

10. Utilities/Service Systems. The 2003 FEIR Final EIR described the existing conditions for electricity, natural gas, communications, solid waste, fire, emergency, sheriff and medical services. While the demand for these resources will increase, no adverse physical impacts are related to implementation of the 2012 FMP. Service demand impacts, by themselves, are not significant effects. Construction of a new electrical substation was completed on campus after 2003. Significant effects from service increases occur only if an adverse physical change occurs in the environment. Mitigation Measures for service systems are included in the 2012 Mitigation Monitoring Program in Appendix J.

11. Mandatory Findings of Significance.

The project has a Less than Significant Impact on the quality of the environment, does not impact rare or endangered species, or have an adverse impact on California history or prehistory (e.g. archaeology and paleontology). The project impact on local historical resources is evaluated in Section 3.8.

The project has a Less than Significant Impact on cumulative impacts because the project impacts are not cumulatively considerable. The cumulative impacts of the project were evaluated in Sections 3.1 to 3.11. While cumulative impacts do occur for traffic, air quality, noise and greenhouse gases, the project contribution is not cumulatively considerable. The project is also providing its fair share of mitigation for traffic, air quality, noise and greenhouse emission impacts. As discussed in Section 3.5, when a project is providing its share fair of mitigation for cumulative impacts, the impact is Less than Significant with Mitigation Incorporated (CEQA Guidelines: Section 15130 (a) (3).

The project does not have substantial adverse impacts on human beings.

3.13 EFFECTS ADEQUATELY EVALUATED IN PRIOR FINAL EIR

Final EIR (SCH 2003061012) included sufficient analysis of the potential environmental impacts of the project and adopted mitigation measures for Hydrology/Flooding, Hazards, Biological Resources, Socio-Economics, and Aesthetics. These topics are not addressed in further detail in this Subsequent EIR. The potential impacts of the 2012 Facilities Master Plan are not substantially different than that evaluated in 2003. Therefore, the prior analysis and adopted mitigation measures are adequate and sufficient for the 2012 Facilities Master Plan for these topics.

The mitigation measures adopted by the Board of Trustees for the 2002 Facilities Master Plan in January 2004 are included in the Mitigation Monitoring Program in Appendix J. In addition, all new or revised mitigation measures in this analysis of the 2012 Facilities Master Plan have been included in the Mitigation Monitoring Program in Appendix J.

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UNAVOIDABLE ADVERSE IMPACTS

4.0 UNAVOIDABLE ADVERSE IMPACTS

The 2012 FMP will provide beneficial benefits, including renovated and new facilities, new utility systems, increased student enrollment, temporary construction jobs, and additional part-time or full-time employment at El Camino College at buildout in 2020. The facilities, in turn, support the educational objectives of the college.

Potential project impacts which are adverse and which are reduced to Less than Significant With Mitigation Incorporated were identified in Section 3.0. Since all potential project impacts due to the 2003 Master Plan remain with buildout of the 2012 FMP, and are not mitigated to Less than Significant, a Statement of Overriding Consideration (SOC) is required for project impacts on historic resources. Extensive evaluation of the project's historic resource impacts were provided in the 2003 FEIR and in Sections 3.0. Appendix H includes both the 2003 and 2012 historic resource evaluations.

Section 3.0 identified the following project impacts as Unavoidable Adverse: (1) Potential project impacts on contributing buildings to a potential eligible historic district and project impacts on two buildings (i.e. Administration and Planetarium) potentially individually eligible for the National Register of Historic Places and the California Register of Historic Places, (2) Temporary construction and demolition noise impacts for residential lots north of Manhattan Beach Boulevard near Lemoli Avenue with wooden rear yard fences, (3) Temporary noise increases within Alondra Park east of the lake and on portions of the golf course during some construction activities for the Lot F Parking Structure, (4) On-campus parking deficiencies during Fall and Spring registration and during construction of the Lot F Parking Structure, (5) temporary air quality operational impacts until increased public transit use results in a 4 percent reduction in NOx emissions and, (6) increase in annual greenhouse gas regional emissions when using Bay Area Air Quality Management District projection methodology and thresholds.

The following discussion is not unique to the new projects included in the 2012 FMP but applies to all future development on campus, including projects that were included in the 2003 FEIR (SCH 2003061012), but not initiated to date.

A Statement of Overriding Consideration (SOC) is required for the project. An SOC indicates how the Lead Agency decides to balance the environmental impacts of the

project with other factors, including economic, social and financial objectives. An SOC is not included in the Draft or Final EIR, but is available for public review ten days prior to the date when project is scheduled for a public hearing before the Board of Trustees of the El Camino Community College District.

ALTERNATIVES TO THE PROJECT

5.0 ALTERNATIVES TO THE PROJECT

This section is prepared pursuant to *CEGA Guidelines, Section 15126*, which specifies that an EIR shall describe reasonable alternatives to the project, or to the location of the project, which could feasibly attain most of the objectives of the project, and could avoid or substantially lessen one or more of the significant effects of the project. The discussion should allow meaningful evaluation, analysis and comparison of the alternatives with the proposed project. Among the factors that may be taken into account when assessing the feasibility of project alternatives are site suitability, economic viability, and general plan consistency.

No alternative sites are being considered for the project. The project is a renovation and modernization program for the existing campus facilities at the project site. While enrollments could be shifted to other campuses, the increased enrollment may cause adverse impacts at those locations, and student vehicular travel at alternative campus sites from the MTSAC District may increase traffic and traffic-related impacts beyond those projected for the 2008 MPU.

The project alternatives selected for further evaluation herein includes Alternative 1: No-Project (no-build) Alternative (16,400 FTES), Alternative 2: Reduced Costs and Alternative 3: Renovation of Six Additional Buildings. As required by CEQA, each project alternative is designed to provide fewer environmental impacts (i.e. in magnitude or number) than the proposed project.

The focus of comparison for the project and project alternatives is on traffic and parking impacts, although other environmental and economic issues (e.g. total cost and historic impacts) may also be considered. Comparisons are made following implementation of feasible mitigation measures. The primary focus, in accordance with the *CEQA Guidelines*, is on comparison of any remaining significant environmental effects.

5.1 ALTERNATIVE 1: NO-PROJECT (16,400 ANNUAL FTES IN 2012)

The no-project alternative is the no-build alternative. No new development would occur on campus except for remodeling and renovation of existing space. All existing land uses would remain unchanged, and the existing facilities would continue operating. No major demolitions or major new construction would occur on campus. There would be

no significant increase in traffic, and a Less than Significant impact on historic resources (e.g. via remodeling) would occur. No significant increase in air quality or noise impacts, except due to cumulative regional traffic growth, would occur.

The no-project alternative would not meet any of the project objectives for replacement of temporary buildings onsite, renovation of existing buildings or construction of new facilities. The existing facilities cannot accommodate the projected future student enrollments or facility needs for effective educational programs. Both the Board of Trustees and the El Camino Community College District residents have endorsed expansion of the campus by approval of the Measure E Bond in November 2002 and the bond measure (ECC Improvements/Transfer/Job Training Measure) passed in November 2012.

With no improvements in existing buildings, energy conservation savings would not be realized and new technology would not be increased on campus.

5.2 ALTERNATIVE 2 – REDUCED COSTS

Alternative 2 assumes that not all of the projects included in the 2012 Facilities Master Plan are built by 2020. Specially, the Northern Parking Structure (700 to 800 spaces) & Campus Police and Arts and the two Arts and Behavioral Science buildings are not built. The Marsee Auditorium renovation project is also excluded.

The cost savings from these four projects may be approximately $45.6 million (CBOC Annual Report, July 7, 2010 – June 30, 2011, pp. 12-14). The loss of the Parking Structure & Campus Police facility would result in the loss of up to 800 new parking spaces. The loss of 58,600 ASF of new space for the two Arts and Behavior Science buildings will curtail improvements to the arts program and proposed gallery improvements. The loss of renovation of the Marsee Auditorium will also impact the performing arts program and outreach to the community.

The removal of the four projects from the 2012 Facilities Master Plan has little impact on the magnitude of potential environment impacts. The change in performance, art and instructional square footage is minimal compared to the total so the operational air quality impacts are similar. However, there will be slightly less construction-related air quality impacts because of the decline in overall square footage. Since the existing Technical Arts, Music and Campus Theatre, Art and Behavioral Science, and Art North buildings were recommended as contributors to a potential historic district, Alternative 2 would have a lesser effect on historic resources.

However, the primary difference between the project and Alternative 2 is the reduced projected total costs for construction. With a total construction budget of $425.2 million (October 18, 2010), a savings of eleven (11) percent is significant. However, if construction costs rise in the future, or the existing buildings require renovation, this economic advantage may be eroded.

5.3 ALTERNATIVE 3 – ADDITONAL RENOVATION OF SIX BUILDINGS

The 2012 historic resource evaluation has concluded that thirteen (13) buildings on campus proposed for demolition are provisionally eligible as contributors to a historic district (Table 3.8.2). The Administration building is also provisionally individually eligible for listing in the National Register of Historic Places (NRHP) under Criteria C and provisionally individually eligible for listing in the California Register of Historic Resources (CRHR) under Criteria 3.

Alternative 3 does not include formation of a historic district but includes additional renovation of six buildings in accordance with Secretary of the Interior Standards for historic buildings that are proposed for demolition. The six buildings are Administration (1950), Music and Campus Theater (1955), Physical Education – North (1957), North Gym (1963), Technical Arts (1959) and Art and Behavioral Science (1968).

The six buildings were selected from the thirteen buildings proposed for demolition because they allow many of the features of the 2012 Facilities Master Plan to be retained, including increased open space, retention of the central amphitheater area and new facilities for student activities/services. The selection focuses on historic architectural features and land use design only, not on future facility needs, operation and maintenance costs, or seismic safety and structural analysis of existing building structures.

The proposed Lot C Parking Structure expansion (700 spaces) would not be built. Alternative 2 would result in an unavoidable adverse impact on parking supply on campus. While an additional parking structure could be constructed within Lot L, the southern portion of the campus has ample parking. Additional parking is needed for the northern areas of the campus.

The following discussion summarizes the architectural features of the five buildings included in the DPR 523L forms included in Appendix H.

As noted in the historic resource study, the Administration building was designed by the firms Marsh, Smith & Powell (1950) and Smith Powell and Morgridge (1963). Built in

1950 and enlarge in 1963, the building was the first two-story structure on campus. On the exterior of the building at the entrance, a pre-cast concrete motif is cast as an over-all wall pattern, a decorative symbol used on other buildings and as a theme for tile patterns at drinking fountain panels and in other ways. The Administration building was constructed to be the focal point of the campus from the public entrance from Crenshaw Boulevard with its two-story height and modern façade.

Using the classic architectural features of the International Style of Post World War II architecture, the Administration building is a long, rectangular-massed building with an "L" plan, with an emphasis on its horizontal alignment, yet accented by vertical brick-faced walls set at perpendicular angles flush with the main building. The front elevation of projecting and recessed walls, set with large window units, is supported by large posts on the first level. The main entrance is set under the front façade, giving the appearance of the second level floating above the ground. The 1963 addition to the Administration building on the west elevation does not interfere with the architectural integrity of the building.

The Technical Arts building appears to be the first two-story building constructed on campus other than the Administration building. The building lacks the high-style architectural details of the earlier buildings, yet still contributes to the overall visual cohesiveness of the campus. The wide overhanging flat roof and projecting cantilevered second-floor walkways surrounding the building presents visual dark and light elements. The large horizontal massed building is anchored at each end by vertical brick faced stairwells or elevator units.

The location and exterior design elements of the North Gymnasium make it an important anchor building to the entire collection of physical education buildings on the west side of the main campus. The east elevation is red brick and smooth concrete, while the south elevation is faced with decorative concrete motif tiles found throughout the campus.

The Physical Education North building complements in design and function the North Gymnasium. The front façade that spans between the two buildings appears to be a unique exterior treatment of a campus area assigned to athletics. The arcade is stripped of all decorative elements and the oversized ramp becomes a sculptural element within the courtyard. The building uses large, bold rectangular areas of applied brick to represent solid and bold values.

The Art and Behavioral Science building has an exceptionally bold presence attributed to its three-story size and the manner in which it looms over the sidewalks. The

architects emphasized its horizontal elements by using projecting walkways and a cantilevered roof, while using metal mesh railing panels that let the light colored concrete form a horizontal line. While providing additional facility space, the building stayed true to the overall design of the campus.

The Music and Campus Theater building repeats the use of a large span of wall space, filled with concrete motif files found on the Administration and Marsee Theater buildings. The Campus Theater and Marsee Auditorium present a choreographed “face” for the southern entrance to the campus. The tile motif on the southern façade ties the building to the rest of the campus.

5.4 ALTERNATIVE 4 – NO THIRD LEVEL ON THE LOT F PARKING STRUCTURE

Alternative 4 assumes the third level of the Lot F parking structure is not built. The preliminary investigations of the feasibility of adding a third level have indicated the third level is feasible from an engineering standpoint, but creates a shortfall of parking requiring use of extensive parking off-campus during the construction period.

The 2012 Facilities Master Plan has included an additional parking structure along Manhattan Beach Boulevard (Lot C) with approximately 700 spaces. Eliminating the third level of the Lot F Parking Structure will result in a loss of approximately 700 parking spaces. However, the projected 2020 parking surplus on campus at buildout with Lot C and without the third level of Lot F is projected as 248 spaces (Table 18, Appendix C). Therefore, the elimination of the third level of parking in the Lot F Parking Structure has a minimal impact on campus parking at buildout. The impact is minimal because a temporary loss of a minimum of 235 spaces will occur during construction of the Lot C parking structure.

The installation of solar panels above the existing second level of the Lot F construction will result in some loss of parking during construction. However, construction can be phased and the closure of each portion of the second level of Lot F will be for a shorter duration than of the addition of a third level.

Although the third level of the Lot F Parking Structure would not be constructed, the renovation of the existing two levels of the Lot F Parking Structure would occur. Therefore, a phased closure of portions of the existing structure will still occur, necessitating additional parking on- or off-campus for spaces lost during renovation. As shown in Table 3.9.1, approximately 545 parking spaces would be lost for up to three academic years in a three-phase construction program. This loss would occur without or with the addition of a third level. However, the duration of construction would be

shorter for renovation of two levels of the Lot F Parking Structure and installation of solar panels above the second level.

Since a similar loss of parking on campus will occur for Alternative 4 compared to the project, all recommended mitigation measures for providing temporary parking during construction are retained, including LF-01 in Section 3.9 (c) and Section 3.3 (c). The latter mitigation measures include PK-01 to PK-05 and PK-08.

The project, with a third level on Lot F, may provide additional parking in Lot F sooner than Alternative 4 because each phase of the project provides approximately 230 additional spaces upon completion of the phase. Therefore, 230 additional spaces are added after phase one completion, 460 after phase two and 700 additional spaces after buildout. With Alternative 4, the 700 additional spaces will be provided in the Lot C structure, although the total parking spaces on campus in 2020 are reduced by 700 spaces. The construction of Lot C could be accelerated, if planning is completed and construction funds are available, to compensate for the loss of parking during renovation of the Lot F parking structure.

The following section provides a brief discussion of the differences in significant effects of the project (including construction of the third level of the Lot F Parking Structure) and Alternative 4 (not constructing the third level). The mitigation measures cited below are referenced by the index used in Section 3.1-3.11 of the Draft EIR.

Land Use. There are no significant changes in land use between the project and Alternative 4. The third level would be constructed above the two existing levels of the Lot F Parking Structure. A Lot C Parking Structure is included in the project. Therefore, Alternative 4 neither increases land use impacts nor reduces land use impacts in comparison to the project.

Traffic/Circulation. Trips generated by the project are based on projected student enrollments. The student enrollment projections remain unchanged for Alternative 4. Therefore, no additional traffic impacts occur for Alternative 4, and no traffic impacts are reduced with Alternative 4. The trip distribution (e.g. direction) from the Lot F Parking Structure during Alternative 4 will not change but the duration of the trip distribution altered by Lot F renovation will be shorter than construction of the third level on the Lot F Parking Structure. Since the recommended traffic signal at the El Camino College Northwest Entrance at Manhattan Beach is required with or without construction of the third level (TR-11) there are no changes in the required mitigation measures for traffic impacts of Alternative 4. A slight decrease in truck trips and employee trips will occur

with Alternative 4 because the duration of construction for Alternative 4 will be less than the project.

Parking. As discussed above, temporary parking will be required during construction of Alternative 4, but the duration required for temporary parking may be slightly less than the project. The construction schedule for the Lot C Parking Structure is a key decision in providing adequate parking in 2020. All recommended parking mitigation measures for the project should be retained for Alternative 4.

Air Quality. The majority of operational air quality particulate emissions generated by the project at buildout are related to vehicular emissions (Table 3.4.10). Since Alternative 4 does not alter the projected student enrollments or trips at buildout, the particulate operational emissions associated with buildout of Alternative 4 are identical to the project. The unmitigated construction-related air quality particulate emissions for the project were significant for VOC and NOx (Table 3.4.7). The emission projections in Table 3.4.7 included total daily emission for Lot F construction. While Alternative 4 may decrease the daily emission slightly since the construction of the third level does not occur, the decrease is likely not substantial. Please note that the entire Lot F construction-related daily emissions in Table 3.4.7 could be eliminated and the combined emissions would still exceed the SCAQMD construction thresholds. Therefore, all recommended mitigation measures for reducing air quality emissions for the project (AQ-01 to AQ-08) should be retained.

Greenhouse Gases. The majority of the operational greenhouse gas emissions generated by the project at buildout are related to vehicular emissions (Table 3.5.5). Since Alternative 4 does not alter the projected student enrollments or trips at buildout, the te operational greenhouse gas emissions associated with buildout of Alternative 4 are identical to the project. Like the project, Alternative 4 would result in a significant contribution toward regional cumulative greenhouse gas impacts. Therefore, all recommended mitigation measures to reduce greenhouse gases should be retained for Alternative 4 (GG-01 to GG-05). Table 3.4.1 estimated the total construction greenhouse gas emissions for the project, based on a thirty-year project life annual average. Any reduction in the use of quantity of construction equipment or duration of construction equipment use related to Alternative 4 will have a minimal reduction in the total construction greenhouse gas emissions projected in Table 3.5.2. The mitigation measures required for air quality impacts of the project are also the measures that reduce greenhouse gas emissions during construction. Therefore, all air quality emissions recommended for the project should be retained for Alternative 4 to reduce construction-related greenhouse gas emissions.

Noise. The project traffic noise CNEL increases (Table 3.6.5) and the project traffic-related noise for Alternative 4 will be identical to the project. Traffic noise is projected from student enrollment and trips at buildout, and is not related to construction. The types of construction equipment used for Alternative 4 will be similar to that used for the project for construction of a fourth level on the Lot F Parking Structure. Section 3.6 (G) and Section 3.6 (H) discussed the construction-related noise impacts of Lot F Parking Structure on Sites 1-3 and Sites 5, 6 (see Exhibit7). All five sites referenced are in close proximity to the Lot F parking Structure. The construction of Alternative 4 will have a minimal effect in reducing daily construction noise levels during construction. The same types of construction equipment will be used and the same noise level standards (Table 3.6.2) apply to Alternative 4. While the number of days of construction for Alternative 4 will be less than for the project, significant noise effects on park and residential areas near Lot F will still occur. Therefore, all mitigation measures recommended for the project related to Lot F construction (NO-01, NO-06, NO-07, NO-09) should be retained for Alternative 4.

Aesthetics. The height of the Lot F Parking Structure will be reduced in Alternative 4 because of the loss of the third level, but the solar panel project will be constructed above the second level. The reduction in height may be regarded as a benefit of buildout of Alternative 4 for views from the golf course. However, the solar panels will increase the height from the existing two levels, and the reduction is not a substantial change.

Solar Panels. There is no substantial difference in construction of the solar panel project above the second level in Alternative 4 and above the third level with the initial project. Neither of the two projects has any significant environmental effects.

No new significant effects of buildout of Alternative 4 beyond those identified for the project have been identified in this analysis. Therefore, the existing environmental analysis and recommended mitigation measures in Section 3 remain adequate and sufficient for Alternative 4.

Table 5.0.1 compares the project alternatives and selected environmental impact issues. For simplicity, the comparisons use assignable square footage (ASF) data instead of gross square footage data. Since Alternative 4 has similar characteristics and significant effects as the project, it is not included in Table 5.0.1. Alternative 4 also has the same environmental ranking (e.g. 4) as the 22012 Facilities Master Plan.

Table 5.0.1
Project Alternative Comparisons

Issue	Alternative 1 No-Project	Alternative 2 Lower Cost Master Plan (- $45.6 mil)	Alternative 3 Renovate 6 Additional Buildings	2012 Facilities Master Plan
1- Students (WSCH))	285,901	349,107	349,107	349,107
2- Students On-Campus (FTES)	16,400	20,025	20,025	20,025
3- Total Square Feet. (ASF)	819,740	793,433	825,261	854,561
4- Net Sq. Ft. Increase (ASF) from 2012	0	(-26,307)	5,521	34,721
5- Total Parking Demand[1]	4,592	5,607	5,607	5,607
6- Average Daily Traffic (1.23/FTES)	20,172	24,631	24,631	24,631
7 – Lot F Parking Expansion/Solar (1,634 spaces to 2,327 total spaces)	No	Yes	Yes	Yes
8- 700-800 Space Lot C Parking Structure ($10.4 million)[3]	No	No	Yes	Yes
9- Total Parking Spaces[2]	4,917	5,855	5,855	6,568
10- Murdock Stadium Revisions ($42.2 million)[3]	No	Yes	Yes	Yes
11-Marsee Auditorium Renovation ($5.2 million)[3]	No	No	Yes	Yes
11- SAC/SSC ($41.1 million)[3]	No	Yes	Yes	Yes
12- Lot F Parking Structure Improvements ($19.3 million)[4]	No	Yes	Yes	Yes
13-Temporary Rebates for Monthly Bus Passes During Lot F Construction	No	Yes	Yes	Yes
14- Increased parking along Manhattan Beach Boulevard west of Facilities to Prairie Avenue during Lot F construction	No	Yes	Yes	Yes
15- Renovate Six Additional Buildings using Secretary of Interior's Standards for Historic Properties[5]	No	No	Yes	No
16- Increase in Open Space (ga)	No	Yes	Yes	Yes
17- Lot F Construction Impacts on Alondra Park	No	Yes	Yes	Yes
18-Environmentally Superior (1=High)	1	2	3	4

1 0.28 parking spaces per Annual Adjusted FTES.
2 Assumes up to 100% usage and does not use 90% utilization as the optimum for lot circulation. Assumes 700 spaces for the Lot C Parking Structure (consistent with the parking study)
3 All costs are from the CBOC Annual Report July 1, 2010 – June 30, 2011.
4 Estimated renovation and construction costs in 2012 provided by IDS Group. Does not include solar energy project costs.
5 Administration, Music and Campus Theater, Physical Education North, North Gym, Technical Arts, Arts and Behavioral Science

Preferred Alternatives

If the environmentally superior alternative is the no-project alternative, Section 15126.6 (2) of the *CEQA Guidelines* requires another project alternative be identified as environmentally superior among the remaining alternatives. Alternative 2 is the designated "superior" alternative.

Each project alternative: (1) Has merit in portraying options available to the District, (2) Meets some objectives of the college while de-emphasizing others, (3) Has potential construction-related environmental impacts in the same order of magnitude and, (4) Except for the no-project alternative, each alternative requires a Statement of Overriding Considerations (SOC) for one or more environmental issues.

All project alternatives except the no-project should be considered in the review process. Ultimately, projected enrollment trends, program needs, the adopted 2012 Facilities Master Plan and available funds determine what facilities are completed on campus and the timing for construction.

The no-project alternative is rejected from further consideration because the facilities required for the College to meet its educational objectives would not be fulfilled, new technology and more efficient energy systems would not be implemented, and facilities and space designed for specific educational objectives (e.g. computers, laboratories, etc.) would not be available for students.

Alternative 3 results in renovation of six additional buildings proposed for demolition that are potentially contributors to a historic district if the district is formally determined eligible for listing on the National Register. However, unavoidable adverse impacts on historic resources would still occur because seven buildings also considered contributors would be demolished.

IRREVERSIBLE AND IRRETRIEVABLE COMMITMENTS OF ENERGY SUPPLIES AND OTHER RESOURCES

6.0 IRREVERSIBLE AND IRRETRIEVEABLE COMMITMENTS OF ENERGY SUPPLIES AND OTHER RESOURCES SHOULD THE PROJECT BE IMPLEMENTED

Buildout of the 2012 FMP will result in demolition of outdated, inefficient or inadequate facilities, and construction of 146,739 ASF net increase of new buildings, additional open space, additional surface/structured parking spaces, and expanded utility systems. Approval of the 2012 FMP allows development to proceed when funds are available and Final Plan Approvals are received from the Community College's Chancellor's Office and the Department of State Architect.

Buildout of the 2012 FMP represents a long-term irretrievable commitment of the project site for campus facilities with a structural lifespan of 50-75 years. It is unlikely that those areas of the campus project with new construction would be redeveloped for alternative uses in the future, although campus program changes or sharp student enrollment increases over a period of many years may result in future remodeling of new buildings in the long-range future or change in use for some buildings.

The project will require irretrievable commitments to energy supplies and resources, both during the construction and operational phases of the project. However, no critical shortage of material resources or energy supplies for the project has been identified in this analysis. Both the energy supplies and other resources required for the project are typical of steel and masonry construction projects, campus facilities and electrical and natural gas equipment.

As fossil fuels are the principal source of energy, the project will incrementally reduce existing supplies of fuels, including natural gas, fuel oil and gasoline. These energy resource demands relate to project construction, lighting, improvement of water, sewer and electrical lines and solid waste disposal. However, the evaluation in Final EIR (SCH 2003061012) showed all service agencies can provide services without direct or indirect adverse physical environmental impacts. This situation remains unchanged for the 2012 FMP.

These conclusions assume extreme natural gas shortages and temporary shortages of electrical power will not be prevalent in the future. In any case, the quantities of natural gas and electricity related to the 2012 FMP are similar to the 2003 FMP. The buildout magnitude of both plans are similar and the natural gas and electricity demands of buildout of the 2012 FMP are not substantial in comparison with area, regional or state demands.

GROWTH-INDUCING AND CUMULATIVE IMPACTS

7.0 GROWTH-INDUCING AND CUMULATIVE IMPACTS

Approval of the 2012 FMP will permit renovation and demolition of existing campus facilities, and new construction of additional campus facilities. Some improvement of campus wide infrastructure, specifically utilities, water, wastewater, natural gas, drainage and communication systems will occur. However, no expanded water or sewer trunk mains are required for the project. Therefore, the project does not have an adverse growth-inducing effect.

While additional circulation improvements are recommended for the 2012 FEIR, no new streets or substantial road widening is proposed off-campus. The cumulative traffic impacts for the study area have been evaluated in the 2012 traffic study.

The 2012 FMP is a response to facility needs and projected student enrollments on campus, District and regional population growth trends (e.g., birth rates and young families) and regional economics. Community colleges are generally not growth inducing in the short-term, especially when development occurs on an existing campus, and in the long-term may only serve to stabilize older communities and provide a better educated workforce and citizenry.

The small scale of the project (a 34,721 ASF net increase) over an eight- year period results in minimal additional development in the adjacent off-campus areas. Construction employment has some impact on traffic but only during the construction period. The project is estimated to employ up to 200 workers onsite during construction.

Campus staff increases at buildout of the project are projected as less than 60 FTE and have little or no impact on area housing demands because of the large geographic region in which future employees may reside. Similarly, the projected student enrollment increase of 3,625 students (FTES) has little impact on any one community, since most students do not change their residence to attend community colleges and there is no permanent student housing on campus or near the campus. The project has no significant growth-inducing effects on population, housing or public service facilities.

The cumulative area impacts of area traffic, air quality emissions, and noise impacts are evaluated in the 2012 FEIR. While the project contributes to cumulative air quality and greenhouse gases in the region, the project is providing its fair share of mitigation for its contribution to regional emissions. Therefore, as stated in Section 15130 (3) of the CEQA Guidelines, the cumulative impact for the project is Less than Significant with Mitigation Incorporated.

ORGANIZATIONS AND PERSONS CONSULTED

8.0 ORGANIZATIONS AND PERSONS CONSULTED

8.1 EL CAMINO COLLEGE

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APPENDICES

10.0 APPENDICES

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B. Traffic Study
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